

# ResearchOnline@JCU

This file is part of the following reference:

**Mpofu, Charles (2013) *The trans-Tasman migration of New Zealand medical practitioners: a qualitative mixed methods case study*. PhD thesis, James Cook University.**

Access to this file is available from:

<http://researchonline.jcu.edu.au/40101/>

*The author has certified to JCU that they have made a reasonable effort to gain permission and acknowledge the owner of any third party copyright material included in this document. If you believe that this is not the case, please contact*

*[ResearchOnline@jcu.edu.au](mailto:ResearchOnline@jcu.edu.au) and quote  
<http://researchonline.jcu.edu.au/40101/>*

**The Trans-Tasman Migration of New Zealand Medical Practitioners:  
A Qualitative Mixed Methods Case Study**

Thesis Submitted by

Charles MPOFU, MHSc (Hons)

August 2013

for the Degree of Doctor of Medical Education

in the School of Medicine and Dentistry

James Cook University

## Acknowledgements

I would like to thank my supervisors Professor Tarun Sen Gupta and Professor Richard Hays for their support and encouragement of my research. This study started as an overly ambitious work that lacked clear parameters but with their guidance it gradually evolved into an exciting research project. I am aware of the difficulties associated with supervising a student by distance. At times I contacted my supervisors during their family time or while they were on holidays for guidance and was grateful for their advice. I feel overly indebted to them for their input into this work. My sincere thanks also go to the James Cook University School of Medicine and Dentistry for releasing funds that supported the field research processes.

I am also grateful to the School of Medicine and particularly extend my sincere thanks to Emma Tucker, their research coordinator. Emma provided invaluable advice to me as a new student to doctoral study procedures. My sincere thanks also go to the medical practitioners involved in this study. They are a special group of people that not only work long hours but also have an important job in looking after our sick and vulnerable. I appreciate them having given up their valuable time to this research. The majority of these participants used their break time and their private or family time to participate in this research. Special thanks also go to the leaders of various organisations at which my participants worked as they facilitated the distribution of questionnaires.

I would also like to extend my sincere thanks to various ethics committees and organisational structures for scrutinising my questionnaires and giving me the necessary feedback before distributing it to participants. The time dedicated by Associate Professor Kenn Felicity and The Royal Australian and New Zealand College of Psychiatrists to providing feedback on my questionnaires and the research procedures is also acknowledged. In addition, special thanks go to particular individuals like Dr Sally Houliston of Hawkes Bay DHB and Dr Andrew Brant and Amanda Wheeler of Waitemata DHB who advised me of a novel way of distributing questionnaires effectively.

Special thanks also go to corporate organisations and government agencies such as Statistics New Zealand, Australian Bureau of Statistics, the Medical Council of New Zealand and the Centre for Workforce Intelligence in the United Kingdom. There were individuals from these organisations who helped by either supplying workforce

information that could be legally released or by providing direction to sources where the required information could be found.

Special thanks also go to friends such as Charles Sibenke and my immediate family members including my brother Prayer Mpofo for their support during the research process. Auckland University of Technology (AUT) work colleagues are also thanked for their encouragement and support particularly Trish Thomas, Deborah Hay, Helen Gaeta, Kitt Foreman, Robin Bellingham, Nick Boston, Sue McNaughton, Ailsa Haxell and Nicola Power. I would also like to thank and acknowledge the invaluable statistical advice given to me by biostatisticians at AUT, particularly Dr Nick Garrett. The Campus Services at AUT through their security coordinator Jesse Pye helped also by providing secure study space during the odd late hours on the university campus. I am grateful also the AUT Vice Chancellor's Doctoral Study Leave Award Committee for granting me leave to complete this study. I thank my line manager Associate Professor Lindsey White also for granting study leave from time to time as required.

I acknowledge the contribution of others to this work, especially the proof reading which was completed by Dr Mary Lincoln. In addition, I thank Jo Adams and Andrew Lavery who proof read specific aspects of this work such as referencing and heading styles. Sue Knox helped with tutorials for formatting tables and figures. I would also like to thank the copyright owners who generously allowed me to use part of their materials in this thesis. Every reasonable effort was made to gain permission and acknowledge the owners of copyright material used in this thesis, as can be seen in Appendix J. I would be pleased to hear from any copyright owner who has been omitted or incorrectly acknowledged.

Lastly, I acknowledge the granting of ethical approval of this research by James Cook University Ethics Committee (H3793) and the AUT Ethics Committee (10/239) on 28 July 2010 and 22 October 2010 respectively.

## Abstract

This research examined why medical practitioners are choosing either to stay in New Zealand or migrate, specifically to Australia. In addition, the study explored what potential exists to influence these choices by those concerned with workforce issues. A qualitative mixed method case study methodology involving a survey of participants in two different sub-projects was used. The first sub-project comprised 114 New Zealand-based medical practitioners and 15 workforce experts. The second sub-project involved 85 medical practitioners who migrated to work in Australia. Respondents either participated in both the survey and the in-depth interviews, or in one of the two.

The study has shown that while the media consistently cite higher salaries as the predominant factor, reasons for migration to Australia are complex and broader than perceived in social spheres. These include factors related to research, training and career aspirations; remuneration and alternative pay packages; working conditions; management and collegial relationships; health system and government policy factors; and intervening factors. The latter are personal, social and environmental in nature. Retention strategies suggested by participants also pointed to the above factors. The motivation theories of Herzberg and Maslow provided a framework for conceptualising the reasons for migration. They were also used as a framework for justifying strategies for dealing with trans-Tasman migration of medical practitioners to Australia.

Migration and motivation theories offer some insights in understanding the trans-Tasman migration of medical practitioners. When viewed individually however these theories leave gaps in explaining this phenomenon. An argument was therefore made that the factors for migration identified in this research can be represented in a comprehensive model that takes into consideration individual and contextual factors in both origin and destination countries. This calls for a model similar to Lee's push-pull factor theory. Recommendations made in this research were in two broad categories which are; radical or transformational strategies and small incremental steps for action. The recommendations in the radical or transformational category include regional or coalition strategies and migration friendly policies. The recommendations in the small steps for action category are in the areas of workforce planning action, government or policy action, medical education, boosting loyalty, creating inertia, multi-stakeholder action, building and developing research evidence base and competing internationally in a sustainable way. The incremental approach was recommended as a preferred option

given the need to be pragmatic and for sustainability of reforms. These reforms are necessary for achieving medical workforce adequacy when dealing with the trans-Tasman migration. It is recommended that workforce planners implement complex and multifaceted approaches aimed at both recruitment and retention, where recruitment drives factor in the global dynamics and competition for medical professionals.

The evidence generated from this research provides a platform to provoke action and promote policy discussions. These responses could lead to formulation of sound economic, social and international policies to address this issue. Regional and other international policies are also seen as crucial to this complex context. The reason for their importance is the growing interdependence of economies globally and the available evidence that migration is not stagnant but continually becoming unpredictable and increasingly more complex. Until New Zealand adopts such bold actions as proposed, current migration trends are likely to continue to unprecedented levels.

# Dedication

To Holly and Daniel

# Contents

<b>Acknowledgements</b> .....	<b>i</b>
<b>Abstract</b> .....	<b>iii</b>
<b>Dedication</b> .....	<b>v</b>
<b>List of Tables</b> .....	<b>xii</b>
<b>List of Figures</b> .....	<b>xiv</b>
<b>Abbreviations and Acronyms</b> .....	<b>xvii</b>
<b>Structure of the Thesis</b> .....	<b>xviii</b>
<b>Chapter 1: Introduction</b> .....	<b>1</b>
1.1 Personal Background to the Study .....	1
1.2 Background .....	3
1.2.1 <i>An introduction to the history of migration to and out of New Zealand.</i> .....	3
1.2.2 <i>Reasons for migration into and out of New Zealand.</i> .....	4
1.2.3 <i>General migration destinations and sources for New Zealand.</i> .....	6
1.2.4 <i>What about the trans-Tasman migration?</i> .....	6
1.2.5 <i>New Zealand's socio-economic landscape and trans-Tasman migration.</i> .....	8
1.3 Problem and Research Questions.....	11
1.4 Justification of the Study .....	13
1.5 Purpose and Scope of the Study.....	15
1.6 Aims .....	16
1.7 Objectives .....	16
1.8 Research Questions.....	16
1.9 Significance of the Study .....	17
1.10 Definition of Terms.....	17
1.11 Conclusion .....	18
<b>Chapter 2: The Medical Workforce Supply and Demand in New Zealand and Australia: A Literature Review</b> .....	<b>19</b>
2.1 Health Workforce Adequacy and the Inherent Complexities .....	20
2.1.1 <i>Forecasting of workforce needs using the needs/utilisation-based models and benchmarking models</i> .....	22
2.1.2 <i>Literature search strategy.</i> .....	23
2.1.3 <i>Rigour and limitations of data sources.</i> .....	25
2.2 Key Findings from the Literature .....	26
2.3 Workforce Scenarios in New Zealand and Australia and Selected Countries: An Analysis using the Needs/Utilisation-based and Bench-marking Approaches.....	26
2.4 Section A: New Zealand Workforce Needs: Discussion of the Literature .....	26
2.4.1 <i>Supply analysis.</i> .....	27
2.4.2 <i>Complexities to note about supply analysis</i> .....	43
2.4.3 <i>Demand analysis.</i> .....	44
2.4.4 <i>Closing the gap.</i> .....	46
2.4.5 <i>Summary.</i> .....	53
2.5 Section B: The Australian Scene of Medical Workforce Needs.....	54
2.5.1 <i>Introduction.</i> .....	54
2.5.2 <i>Supply analysis.</i> .....	55

2.5.3	<i>Closing the gap.</i>	59
2.5.4	<i>Implications.</i>	63
2.6	Section C: International Outlook: A Snapshot of Current Trends in Workforce Supply and Demand in Canada, US, and UK.	64
2.6.1	<i>The United Kingdom.</i>	65
2.6.2	<i>Canada.</i>	69
2.6.3	<i>The United States of America.</i>	72
2.7	Summary of the International Outlook	74
2.8	Conclusion	74
<b>Chapter 3: Related Theoretical Frameworks: Migration Theories</b>		<b>76</b>
3.1	Migration Theories.	76
3.1.1	<i>Classical thinking about migration: Ravensteinian views.</i>	77
3.1.2	<i>Current migration theories.</i>	80
3.1.3	<i>Analysis.</i>	86
3.1.4	<i>Summary.</i>	88
3.1.5	<i>Conclusion.</i>	88
<b>Chapter 4: Ethics and the Migration of Medical Practitioners</b>		<b>89</b>
4.1	Rationale	89
4.1.1	<i>Insights from Kantian ethics.</i>	91
4.1.2	<i>A philosophical discussion of corrective actions.</i>	94
4.1.3	<i>Ethics of flows between developed countries.</i>	96
<b>Chapter 5: Methodology</b>		<b>103</b>
5.1	Methodology: A Qualitative Mixed Method Case Study	103
5.1.1	<i>Defining the unit of analysis and boundaries of the case.</i>	104
5.1.2	<i>Determining the type of case study.</i>	105
5.1.3	<i>Ontology and epistemology.</i>	106
5.1.4	<i>The survey method.</i>	110
5.1.5	<i>Sampling strategies.</i>	111
5.2	Data Collection Sub-Project One: Sample of New Zealand Medical Practitioners and Selected Workforce Experts	112
5.2.1	<i>Piloting the questionnaire.</i>	112
5.2.2	<i>Phase 1 of data collection: Volunteer and purposive sampling.</i>	113
5.2.3	<i>Phase 2: Purposive sampling of medical practitioners.</i>	116
5.2.4	<i>Phase 3: Purposive sampling of key workforce experts.</i>	116
5.2.5	<i>The in-depth interviews.</i>	117
5.3	Data Collection Part Two: Medical Practitioners who Migrated to Australia	118
5.3.1	<i>Piloting the questionnaire.</i>	118
5.3.2	<i>Sampling strategy.</i>	118
5.3.3	<i>Phase 1: Volunteer sampling.</i>	119
5.3.4	<i>Phase 2: Purposive sampling strategy.</i>	120
5.4	Data Analysis	122
5.4.1	<i>Analysis of qualitative data.</i>	122
5.4.2	<i>Quantitative data analysis of Likert-type items of the New Zealand and Australian participant surveys.</i>	125
5.4.3	<i>Text analysis strategy and method of achieving rigour.</i>	126
5.4.4	<i>Study validation framework.</i>	127

5.4.5	<i>Ethical considerations.....</i>	129
5.5	Limitations of the Study.....	131
5.6	Conclusion .....	132
<b>Chapter 6: Presentation of Sub-Project One Results: Qualitative Interviews of Medical Practitioners in New Zealand and Selected Workforce Experts.....</b>		
6.1.1	<i>Demographic profile of participants.....</i>	133
6.1.2	<i>Summary of themes. ....</i>	134
6.1.3	<i>Theme 1: Research, training and other career aspirations. ....</i>	136
6.1.4	<i>Theme 2: Remuneration and pay packages. ....</i>	140
6.1.5	<i>Theme 3: Working conditions. ....</i>	143
6.1.6	<i>Theme 4: Management and collegial relationship issues. ....</i>	150
6.1.7	<i>Theme 5: Health system and government policy factors.....</i>	154
6.1.8	<i>Theme 6: Lifestyle, family, social and environmental factors.....</i>	160
6.1.9	<i>Theme 7: Pull factors and retention strategies. ....</i>	165
6.1.10	<i>Summary and conclusion on sub-project one results.....</i>	173
<b>Chapter 7: Presentation of Sub-Project Two Results: Qualitative Interviews of Medical Practitioners who Migrated to Australia .....</b>		
7.1	Demographic Profile of Medical Practitioners who Participated in In-Depth Interviews.	175
7.1.1	<i>Theme 1: Research, training and career aspirations.....</i>	176
7.1.2	<i>Theme 2: Remuneration and pay packages. ....</i>	182
7.1.3	<i>Theme 3: Working conditions. ....</i>	184
7.1.4	<i>Theme 4: Management and collegial relationships.....</i>	185
7.1.5	<i>Theme 5: Health system, government policies and registration factors. ....</i>	186
7.1.6	<i>Theme 6: Family, social and personal factors.....</i>	192
7.1.7	<i>Theme 7: Push factors and intentions of returning to New Zealand. ....</i>	197
7.2	Summary and Conclusion of Sub-Project Two Results.....	203
<b>Chapter 8: Presentation of Sub-Project One Results: New Zealand Participants' Survey .....</b>		
8.1	Demographic Information of Participants.....	205
8.1.1	<i>Non-medical practitioner workforce experts. ....</i>	205
8.1.2	<i>Participants with a research portfolio. ....</i>	206
8.1.3	<i>Participants with medical education portfolios. ....</i>	206
8.1.4	<i>How participants were spread across DHBs. ....</i>	207
8.2	Likert Scale Rating of Factors known to Cause Emigration.....	208
8.2.1	<i>Higher salaries.....</i>	208
8.2.2	<i>Remuneration packages. ....</i>	209
8.2.3	<i>Training and CPD factors.....</i>	210
8.2.4	<i>Heavier workload in New Zealand. ....</i>	211
8.2.5	<i>High expenses of medical schools.....</i>	212
8.2.6	<i>Family factors. ....</i>	213
8.3	Summary of Results about Factors that are known to Cause Medical Migration.....	213
8.4	Strategies of Boosting Workforce Adequacy.....	214
8.4.1	<i>Māori and Pacific admission schemes.....</i>	215
8.4.2	<i>Rural origin preferential entry pathway. ....</i>	215
8.4.3	<i>Maintaining contact and offering return incentives to expatriate medical practitioners.....</i>	216

8.4.4	<i>Regulation of medical practitioners' migration.....</i>	217
8.4.5	<i>Increased collaboration between health ministries of sending and recipient countries.....</i>	218
8.4.6	<i>Strengthen overseas recruitment.....</i>	219
8.4.7	<i>Increased medical student intake numbers. ....</i>	220
8.4.8	<i>Summary of factors about strategies of boosting medical workforce adequacy. ....</i>	221
8.5	<b>Curriculum Innovation as a way of Boosting the Medical Workforce .....</b>	221
8.5.1	<i>Change medical training to be less competitive overseas.....</i>	222
8.5.2	<i>Shortening the length of residency programmes.....</i>	223
8.5.3	<i>Introduce medical auxiliaries. ....</i>	223
8.5.4	<i>Strengthening community-based medical education/ community/ rural preceptorship. ....</i>	224
8.5.5	<i>Promote more telemedicine. ....</i>	225
8.5.6	<i>Summary on curriculum innovation factors.....</i>	225
8.6	<b>Current Challenges in the Medical Workforce .....</b>	226
8.6.1	<i>Turnover as an issue. ....</i>	226
8.6.2	<i>The trend of female participation as an issue. ....</i>	227
8.6.3	<i>Ageing workforce poses challenges. ....</i>	228
8.6.4	<i>Challenges of population structure which is ageing.....</i>	229
8.6.5	<i>Summary on challenges in the medical workforce.....</i>	229
8.7	<b>Summary of All the Questionnaire Responses .....</b>	230
8.7.1	<i>Questions where the responses tended towards the 'agree' and the 'strongly agree' categories. ....</i>	230
8.7.2	<i>The 'strongly agree' and the 'agree' categories combined. ....</i>	230
8.7.3	<i>Questions where the majority of responses leaned towards 'mixed feelings' or 'strongly disagree'. ....</i>	233
8.8	<b>Analysis of Open Ended Question Results in the Questionnaire.....</b>	233
8.8.1	<i>Responses to the question about the factors that make medical practitioners migrate to Australia. ....</i>	233
8.8.2	<i>Responses to the question: "Comment about the working conditions of medical practitioners in New Zealand".....</i>	234
8.8.3	<i>Responses to the question: "What are the factors that contribute or could contribute to the retention of graduates here in New Zealand?".....</i>	235
8.8.4	<i>New items that emerged from the open ended questions and items that were mentioned in extreme ways. ....</i>	236
8.9	<b>Conclusion .....</b>	237

**Chapter 9: Sub-Project Two: Quantitative Results of the Survey of Medical Practitioners who Migrated to Australia..... 239**

9.1	<b>Section A: Demographic Information.....</b>	239
9.1.1	<i>Age by stage in career.....</i>	240
9.1.2	<i>Gender by stage in career.....</i>	241
9.1.3	<i>Marital status by stage in career. ....</i>	242
9.1.4	<i>Country of birth by stage in career.....</i>	242
9.1.5	<i>Country of qualification.....</i>	243
9.1.6	<i>Postgraduate pathway.....</i>	244
9.1.7	<i>Years worked in New Zealand. ....</i>	245

9.2	Section B: Causes of Migration .....	245
9.2.1	<i>Desire for better salaries.</i> .....	246
9.2.2	<i>Opportunities for training and continued professional development.</i> .....	247
9.2.3	<i>Opportunities for research.</i> .....	248
9.2.4	<i>Heavy workload in New Zealand.</i> .....	249
9.2.5	<i>Dissatisfaction with professional life.</i> .....	249
9.2.6	<i>Dissatisfaction with relationships, including management.</i> .....	250
9.2.7	<i>Access to technology, equipment and facilities.</i> .....	251
9.2.8	<i>Travel to a country with more medical jobs.</i> .....	251
9.2.9	<i>The need to work in an environment with more colleagues in field of interest.</i> .....	252
9.2.10	<i>Insufficient clinical exposure to a variety of clinical cases.</i> .....	253
9.2.11	<i>Desire for a currency with greater buying power.</i> .....	254
9.2.12	<i>Factor of political stability, peace, safety from crime.</i> .....	255
9.2.13	<i>Unfriendly student loan policies.</i> .....	255
9.2.14	<i>Lack of educational opportunities for children.</i> .....	256
9.2.15	<i>Networks of friends.</i> .....	257
9.2.16	<i>Citizenship or permanent residency.</i> .....	257
9.3	Analysis of Open-Ended Texts .....	258
9.4	Summary of Findings.....	260
9.5	Conclusion .....	262
<b>Chapter 10:</b>	<b>Discussion .....</b>	<b>263</b>
10.1.1	<i>Rationale for discussing major themes in the framework of motivation theories.</i> .....	264
10.1.2	<i>The hierarchy of importance of the factors leading to migration.</i> .....	266
10.2	Discussion of Causes of Migration .....	268
10.2.1	<i>Major theme: Remuneration and alternative pay packages.</i> .....	269
10.2.2	<i>Major theme: Working conditions.</i> .....	273
10.2.3	<i>Major theme: Management and collegial relationships.</i> .....	276
10.2.4	<i>Major theme: Research training and career aspirations.</i> .....	278
10.2.5	<i>Major theme: Intervening factors.</i> .....	284
10.2.6	<i>The economic landscape and government policies.</i> .....	287
10.2.7	<i>Proximity and systemic similarities.</i> .....	289
10.2.8	<i>Overview of the discussion of major themes.</i> .....	292
10.2.9	<i>A proposed framework for understanding the trans-Tasman migration.</i> ....	293
10.3	Conclusion .....	294
<b>Chapter 11:</b>	<b>Summary, Conclusion and Recommendations .....</b>	<b>296</b>
11.1	Summary .....	296
11.2	Pre-Study Assumptions Revisited.....	297
11.3	Revisiting the Objectives of the Study.....	297
11.4	Implications .....	299
11.5	Areas for Future Research .....	299
11.6	Recommendations.....	300
11.6.1	<i>Small and incremental steps for action.</i> .....	304
11.7	Summary of recommendations .....	308
<b>Chapter 12:</b>	<b>Conclusion.....</b>	<b>310</b>



## List of Tables

Table 1 Major Events that Influenced Migration into and out of New Zealand .....	5
Table 2 Instances where Auckland Ranked within the Top Ten Countries by Worldwide Measures .....	10
Table 3 New Zealand Trained Medical Practitioners Registered in Australian States .....	12
Table 4 Sample of Documents used for Triangulation of Literature Sources.....	25
Table 5 Statistics of the Medical Workforce in New Zealand.....	28
Table 6 Percentage of Graduates Retained by Postgraduate Year .....	33
Table 7 New Zealand Medical Practitioners' Base Salary Range in NZ Dollars As at 1 June 2013 .....	34
Table 8 Medical Practitioners' Base Salary Range in Northern Territory, Australia .....	35
Table 9 Number of Doctors Registered by the Medical Council of New Zealand from Pacific Island Countries .....	39
Table 10 List of Hard to Staff Specialities.....	51
Table 11 Workforce Planning Approaches .....	52
Table 12 Parallel Work Streams all Focusing on the Medical Workforce.....	53
Table 13 Timeline of Measures of Redress Taken.....	59
Table 14 Key Stakeholders in Medical Education in Australia .....	61
Table 15 Number of UK IMGs Registered in New Zealand by Region by Year .....	69
Table 16 Number of IMGs from Canada Registered in New Zealand by Year.....	71
Table 17 Number of IMGs from US Registered in New Zealand by Year.....	73
Table 18 Perceived Efficiency of Questionnaire Dissemination Modes.....	113
Table 19 Organisations Approached and Number of Responses .....	115
Table 20 Summary of Responses from Organisations .....	115
Table 21 Sampling across Settings in Medicine .....	116
Table 22 Summary of Survey and Interview only Participants .....	117
Table 23 Response Summaries from Organizations .....	120
Table 24 Response Rates per Organisation.....	121
Table 25 Thematic Analysis Phases.....	124
Table 26 Questions Guiding the Development of Themes .....	124
Table 27 Key to label of text excerpts .....	134
Table 28 Summary of Themes and Subthemes of Medical Practitioners' and Workforce Experts' Interviews .....	135
Table 29 Summary of Themes and Subthemes of Medical Practitioners who Migrated to Australia.....	176
Table 30 Portfolios of Workforce Experts.....	206
Table 31 Participants with Research Portfolios .....	206

Table 32 Participants with a Medical Education Portfolio .....	207
Table 33 Participants' Spread in Selected DHBs.....	207
Table 34 Summary of Themes about Causes of Migration of Medical Practitioners to Australia.....	208
Table 35 Strategies of boosting workforce adequacy .....	214
Table 36 Curriculum innovation factors surveyed.....	222
Table 37 Summary of factors surveyed on current challenges in the medical workforce .....	226
Table 38 Issues Raised by Participants about Factors Causing Migration to Australia.....	234
Table 39 Issues Raised by Participants in Relation to Working Conditions.....	235
Table 40 Issues Raised by Participants in Relation to Retention.....	236
Table 41 Key for labels for stage in career .....	240
Table 42 Postgraduate Training or Intended Postgraduate Training.....	244
Table 43 Factors Surveyed among Medical Practitioners who Migrated to Australia .....	246
Table 44 Dissatisfaction with management relationships: level of agreement by Likert scale category.....	250
Table 45 Summary of Issues Raised in Open Ended Question Responses.....	259
Table 46 Major Themes .....	264
Table 47 Herzberg's Motivation-Hygiene Theory.....	266
Table 48 Media Headings about Exodus of Medical practitioners .....	271
Table 49 Comparison of the New Zealand and the Australian Tax Brackets .....	288
Table 50 Summary of recommendations .....	309

## List of Figures

Figure 1. Proportion of specialists with qualifications approved by AMC in 2010.....	13
Figure 2. Elements of the basic workforce planning model.....	22
Figure 3. Numbers of medical doctors in OECD countries per 1,000 population, 2011. ....	27
Figure 4. Hospital and Community Health Services medical workforce, year ending 30 September 2001–2012. ....	66
Figure 5. Joining and leaving rates in the National Health System. ....	67
Figure 6. Graphic showing qualitative mixed methods in the continuum of mixed methods. ....	103
Figure 7. A representation of how the methods were mixed. ....	108
Figure 8. Qualitative dominance and time order in mixed methods of this study. ....	109
Figure 9. Venn diagram showing the spread of participants between interviews and the survey questionnaire ....	122
Figure 10. Text search query for the word ‘money’. ....	127
Figure 11. Theme of research, training and other career aspirations. ....	136
Figure 12. Theme of remuneration and pay packages. ....	140
Figure 13. Theme of working conditions. ....	144
Figure 14. Management and relationship factors. ....	150
Figure 15. Theme 5: Health system and government policy factors. ....	154
Figure 16. Theme of lifestyle, family and environmental factors. ....	160
Figure 17. The theme of pull factors and retention strategies. ....	166
Figure 18. Theme of research, training and clinical aspirations. ....	177
Figure 19. Theme of remuneration and pay packages. ....	182
Figure 20. Theme of working conditions. ....	184
Figure 21. Theme of management and collegial relationships. ....	185
Figure 22. Health system, government policies and registration factors. ....	187
Figure 23. Theme of family, social and personal factors. ....	192
Figure 24. Theme of push factors and intentions of returning to New Zealand. ....	198
Figure 25. Respondents’ degree of agreement that “higher salaries are a cause of medical migration to Australia”. ....	209
Figure 26. Respondents’ degree of agreement that “remuneration packages are a cause of medical migration to Australia”. ....	210
Figure 27. Respondents’ degree of agreement that “training and CPD factors are a cause of medical migration to Australia”. ....	211
Figure 28. Respondents’ degree of agreement that a “heavier workload in New Zealand is a cause of medical migration to Australia.” ....	212
Figure 29. Respondents’ degree of agreement that a “higher medical school expenses in New Zealand is a cause of medical migration to Australia”. ....	212

Figure 30. Respondents’ degree of agreement that “family factors are a cause of medical migration to Australia” . . . . .	213
Figure 31. Respondents’ degree of agreement that “that Māori and Pacific undergraduate admission schemes are helping in achieving medical workforce adequacy” . . . . .	215
Figure 32. Degree of agreement that rural origin preferential entry pathway undergraduate admission schemes are helping in achieving medical workforce adequacy. . . . .	216
Figure 33. Degree of agreement that maintaining contact and offering incentives to expatriate doctors is helpful in achieving medical workforce adequacy. . . . .	217
Figure 34. Degree of agreement that regulating practitioners’ migration is helpful in achieving medical workforce adequacy. . . . .	218
Figure 35. Degree of agreement that increased collaboration between New Zealand and Australia is helpful in achieving medical workforce adequacy. . . . .	219
Figure 36. Degree of agreement that strengthening overseas recruitment is helpful in achieving medical workforce adequacy. . . . .	220
Figure 37. Degree of agreement that increasing medical student intake numbers is helpful in achieving medical workforce adequacy. . . . .	221
Figure 38. Degree of agreement that changing medical training to be less competitive overseas is helpful in achieving medical workforce adequacy. . . . .	222
Figure 39. Degree of agreement that shortening length of residency programmes is helpful in achieving medical workforce adequacy. . . . .	223
Figure 40. Degree of agreement that introducing medical auxiliaries is helpful in achieving medical workforce adequacy. . . . .	224
Figure 41. Degree of agreement that strengthening rural preceptorship is helpful. . . . .	224
Figure 42. Degree of agreement that promotion of telemedicine is helpful in achieving medical workforce adequacy. . . . .	225
Figure 43. Degree of agreement that turnover is an issue in the medical workforce. . . . .	227
Figure 44. Degree of agreement that the trend of female participation poses a challenge. . . . .	228
Figure 45. Degree of agreement that the ageing workforce poses challenges. . . . .	228
Figure 46. Degree of agreement that the ageing population poses challenges. . . . .	229
Figure 47. Summary of results showing ‘agree’ and ‘strongly agree’ responses combined percentage for each category. . . . .	232
Figure 48. Sample of recurrence of themes about ‘family’ as a retention factor. . . . .	237
Figure 49. Age profile of respondents by seniority. . . . .	241
Figure 50. Gender profile of respondents by seniority. . . . .	241
Figure 51. Marital profile of respondents by seniority. . . . .	242
Figure 52. Country of birth by seniority. . . . .	243
Figure 53. Country of qualification by seniority. . . . .	244

Figure 54. Survey participants' level of seniority by number of years worked in New Zealand. ....	245
Figure 55. Desire for a better salary as a factor for leaving New Zealand: level of agreement by Likert scale category. ....	247
Figure 56. Opportunities for CPD as a factor for leaving New Zealand: level of agreement by Likert scale category. ....	248
Figure 57. Better opportunities for research as a factor for leaving New Zealand: level of agreement by Likert scale category. ....	248
Figure 58. Heavy workload as a factor for leaving New Zealand: level of agreement by Likert scale category. ....	249
Figure 59. Dissatisfaction with professional life as a factor for leaving New Zealand: level of agreement by Likert scale category. ....	250
Figure 60. Access to technology, equipment and facilities as a factor for leaving New Zealand: Level of agreement by Likert scale category. ....	251
Figure 61. Travel to a country with more medical jobs as a factor for leaving New Zealand: level of agreement by Likert scale category. ....	252
Figure 62. The need to work in an environment with more colleagues in field of interest as a factor for leaving New Zealand: level of agreement by Likert scale category. ....	253
Figure 63. Insufficient clinical exposure to a variety of clinical cases as a factor for leaving New Zealand: level of agreement by Likert scale category. ....	254
Figure 64. Desire for a currency with greater buying power as a factor for leaving New Zealand: Level of agreement by Likert scale category. ....	254
Figure 65. Political stability, peace and safety from crime as a factor for leaving New Zealand: level of agreement by Likert scale category. ....	255
Figure 66. Unfriendly student loan policies as a factor for leaving New Zealand: level of agreement by Likert scale category. ....	256
Figure 67. Lack of educational opportunities for children as a factor for leaving New Zealand: level of agreement by Likert scale category. ....	256
Figure 68. Networks of friends as a factor for leaving New Zealand: level of agreement by Likert scale category. ....	257
Figure 69. Citizenship or permanent residency as a factor for leaving New Zealand: level of agreement by Likert scale category. ....	258
Figure 70. Summary of results showing 'strongly agree' and 'agree' combined percentage for each category. ....	261
Figure 71. Maslow's Hierarchy of Needs. ....	267
Figure 72. A concept diagram of study major themes and motivation theories. ....	268
Figure 73. A model of medical practitioner migration from New Zealand to Australia. ....	293
Figure 74. A conceptual framework for international initiatives. ....	302

## Abbreviations and Acronyms

<b>Acronym</b>	<b>Meaning</b>	<b>Description</b>
CPD	Continuing Professional Development	A means by which members of the medical profession maintain, improve and broaden their knowledge and skills and develop the personal qualities required in their work
DHB	District Health Board	New Zealand has 21 regionally-based Boards that provide secondary and tertiary health care
GP	General Practitioner	Medical practitioners who provide primary and continuing medical care for patients in the community. They may be specialists for patients with specific conditions.
IMGs	International medical graduates	Medical practitioners who completed their first medical qualification in a country other than where they are currently practising
Locums	-	Doctors who choose short-term employment by more than one DHB at a time rather than permanent employment with one DHB
MCNZ	Medical Council of New Zealand	A medical practitioner registration authority in New Zealand
NZIER	New Zealand Institute of Economic Research	A non-profit incorporated society that undertakes independent economic research in the interests of the public good, with the aim of encouraging debate on economic issues affecting New Zealand
OECD	Organisation for Economic Co-operation and Development	International organisation helping member governments tackle the economic, social and governance challenges of a globalised economy.
PHOs	Primary Health Organisations	Groups of primary health care providers established through the Primary Health Care Strategy
RMO	Resident Medical Officer	A term covering resident doctors from their last year of undergraduate training to vocational training e.g. trainee intern, intern, junior doctor, house officer, house surgeon, senior house officer/ surgeon, registrar and advanced trainee
SMO	Senior Medical Officer	In this work it means a medical practitioner who has completed a vocational training programme and is registered to practise within a particular vocational scope of practice

## Structure of the Thesis

The thesis is organised into chapters as follows. Chapter 1 introduces the history and the modern context of the phenomenon of trans-Tasman medical migration. The socio-economic landscape of New Zealand is given in so far as it relates to the migration phenomenon being investigated. The background section of this chapter shows that there is a longstanding relationship between Australia and New Zealand. This relationship seems to be continuing and is part of the context for considering factors leading to the trans-Tasman medical migration. The aims and research questions of this study are also presented in this chapter.

Chapter 2 reviews literature on the medical workforce situation mainly in New Zealand and Australia and gives a brief overview of the workforce scenario in other English-speaking, developed countries such as Canada, United Kingdom, and the United States of America. The New Zealand and Australian medical workforce competition context was also assessed and Australia seems to be leading.

Chapter 3 analyses the relevant concepts of migration and globalisation. Additionally, ethical issues in regards to the migration of medical practitioners are analysed in chapter 4. The conceptual analysis presented in these chapters shows that competition for medical practitioners is a global phenomenon that is inevitable and that the migration of medical practitioners between New Zealand and Australia has some unique elements that are not shared by other migration phenomena and are therefore a ‘case<sup>1</sup>’ of interest.

Chapter 5 introduces and defends the case study methodology as a suitable approach for this study. The approach to researching in case study methodology, such as using surveys and interviews is discussed in this chapter. The specific way that this methodology and the methods were used in this study is also discussed.

Chapters 6 and 7 present the results of the interviews: Chapter 6 covers those of New Zealand medical practitioners and workforce experts based in New Zealand; Chapter 7, of the medical practitioners who have migrated to Australia.

Chapters 8 and 9 present the results of the quantitative surveys: Chapter 8, one that was carried out among the New Zealand based medical participants and selected workforce experts; Chapter 9, of New Zealand medical practitioners who migrated to Australia.

---

<sup>1</sup> Fully defined in the methodology chapter.

Chapter 10 is the discussion of the study findings as well as drawing together all the materials of the research, including the motivation theories and migration theories used as a framework for understanding these factors. This chapter also gives a conceptual framework for the understanding of factors that influence the medical practitioners' decisions to either remain in New Zealand or to migrate to Australia.

Chapter 11 presents the conclusion to the research, identifying implications of the study and outlining areas for further research. Recommendations for strategies for action concerning the trans-Tasman migration phenomenon are also provided.

# Chapter 1: Introduction

## 1.1 Personal Background to the Study

This section aims to position myself in relation to this work. It is important to mention at the outset that I wrote this reflection after the research had already been carried out. Passion to pursue this topic arose mainly from my interest in health systems analysis with a particular focus on the contribution of medical workforce adequacy in the functioning of a health system.

I also undertook similar work in the area of health systems in my previous masters' research study that focused on the underutilisation and registration barriers of international medical graduates in New Zealand. However, this previous work is not directly related to the current study. Nevertheless, the impact of doing such research led to the development of an interest in wider issues of workforce adequacy in New Zealand.

I would also like to relate my personal experience of migration within Zimbabwe as a child and outside Zimbabwe as an adult. In relation to migration I recall the first experience of migration being from Nkayi-a small rural town into a bigger city called Bulawayo in Zimbabwe. The reason was that my father had migrated there for employment which a small town could not offer. The second reason why my father migrated was to access better education for the writer and siblings who were of a school going age at that time.

After carrying out this study memories of my first experience as a tertiary education student and as a worker in Zimbabwe were revived. The most significant one was that during the period when the economy in Zimbabwe was functioning well the positive experience I had as a tertiary student and as a worker created a great sense of loyalty to the country. This loyalty came from the fact that in the early 1990s in Zimbabwe tertiary education students were fully supported generously by government grants which were not to be repaid. The only portion which we paid back as students was a quarterly stipend that was given to us as a living allowance.

Notably, although the education system in Zimbabwe produced graduates who were internationally recognised by most Western English-speaking countries (Immigration New Zealand, 2005; Kingma, 2006), there were few incidents of migration to these

countries. A negligible number of graduates used to migrate to the neighbouring Botswana and South Africa as these two countries were relatively more affluent and geographically closer. At that time I was aware of opportunities in the two neighbouring African countries as well as in most Western English-speaking countries. However, I was never convinced enough to think of moving, particularly because of retention factors such as quality of life and standards of living in Zimbabwe which I perceived as favourable at that time. Another key reason for inertia was that Zimbabwe appeared to be better in terms of access to medical care and affordability of basic commodities such as food. Career prospects were also a factor influencing this decision not to migrate. The stable life and a promising booming economy were sufficient enough reasons to never think of migrating.

Of most relevance to this research is the fact that the first trigger for migration was the political turmoil which made life and career prospects unpredictable. Economic conditions became marred by inflation which greatly affected the buying power of my earnings. Nevertheless, forces that created inertia for a time existed. These included the fact that my employer, the Ministry of Education, had employee benefit schemes that were attractive as I perceived these to be important. Benefit schemes included allowances for housing, transport, and medical aid.

Another factor which is relevant to this study was related to the Zimbabwean health system that had been affected by both migration and economic meltdown. On this note I recall two particular incidents that happened in my life and led to my seeking of medical treatment. The first was as a child in the 1980s when I was hospitalised for a week in a government owned hospital. The memories of the positive experience in that hospital are still living- the medical team, the treatment and the facilities that were well maintained. On this note my parents always remind me that at that time they were on a meagre income and that staying in hospital including specialist care was paid for by the government. The positive experience of the health system in Zimbabwe was also reinforced by the fact that when I started working in Zimbabwe I was on a government subsidised medical aid scheme that afforded me such primary care as free dental services twice a year, replacement of spectacles every two years and unlimited access to general practitioner services with no excess fees to pay.

The relevance of the points I make above is that between the year 2000 and 2002 in the peak of political instability there was a sudden deterioration in Zimbabwe's health

services (Meldrum, 2008) that I perceived to be important. Medical practitioners left Zimbabwe in large numbers and those who remained in Zimbabwe started charging very high fees (Chikanda, 2006; de Castella, 2003). Use of the government funded medical aid scheme ended alongside many other government subsidised social services (Meldrum, 2008). These factors which initially were the reasons for staying became new triggers for me to think of migration.

Moreover another influencing factor in favour of migration was that I was single and had no children at that time. The decision making process in regard to migrating involved considering criteria for choosing a country to which to migrate. The criteria included that the country should be English-speaking with community networks. The countries of first choice were South Africa and the United Kingdom but the visa restrictions were a barrier. Hence, I chose New Zealand mainly because of its English language speaking status and because I had come across advertisements in local newspapers for different types of jobs in this country.

It can be seen from the reflection that had it not been for political and economic meltdown which also affected the health services in Zimbabwe, my decision to migrate might not have been triggered. I must also emphasise that the greater forces acting against me migrating were mainly related to loyalty.

## **1.2 Background**

### **Introduction**

This chapter sets the scene of the research project by giving an overview of the trends of immigration into and out of New Zealand. The chapter then takes a particular look at the background and shape of the trans-Tasman migration of the general population and specifically of medical practitioners. The rationale for this study and the research questions are then presented in light of the background discussion.

#### **1.2.1 An introduction to the history of migration to and out of New Zealand.**

New Zealand has a long history of migration and travel (Bedford, Ho, & Hugo, 2003; Green, Power, & Jang, 2008; Hugo, 2004) and this dates back to this country's discovery by Māori ancestors in the 13th century and its first sightings by Europeans in 1640s. Since then this country has evolved and adopted different migration-friendly laws as well as social policies such as biculturalism and multiculturalism. This country is bicultural in the sense that most of its social policies hinge on an agreement which

was done in the 1840s by the Māori (New Zealand indigenous people) people and the Europeans (who mainly originated from Britain). This occurred through the British Crown which founded the basis of socio-political policies on the Treaty of Waitangi: a document that was to be the cornerstone of the co-existence between the two parties. New Zealand has added a multicultural face, necessitated by immigrants from all over the world. Thus, this country has been seen by geographers and other scholars as a country of immigrants (Bedford, Bedford, Ho, & Lidgard, 2002; Wilson, 2013).

The immigration movement that resulted in biculturalism consisted of Europeans, mainly of British origin, who came to New Zealand in the 1840s. For example, by 1839 it is estimated that only 2,000 Europeans actually lived in New Zealand, along with approximately 100,000 Māori (J. Phillips, 2009). Around the beginning of the 1850s migration was mainly from Britain and driven mainly by the New Zealand Company, which was formed in 1838. For instance, the activities of this company resulted in the number of European migrants increasing from 20,000 in 1839 to 26,700 in 1851. Figures from the census of 1858 showed that the European population of New Zealand had increased by 122% from the 1851 figure; amounting to 59,300. Of these Europeans, 40% were born in England, and 31.5% were born locally in New Zealand. The remainder were from the British Isles, Australia, or other Commonwealth countries (Ministry for Culture and Heritage, 1966). It must be emphasised that, in the history of migration to New Zealand, the United Kingdom has been the most popular source of migrants. Interestingly, it has up to the present moment been one of the major sources of New Zealand's permanent and long-term migrants. The above statistics can be compared with current figures where latest census figures from the United Kingdom showed 58,300 people born in New Zealand were living there in 2001 (Statistics New Zealand, 2008).

### **1.2.2 Reasons for migration into and out of New Zealand.**

In addition to migration into New Zealand there were some unique patterns of inward and outward migration. From the period of around the 1800s, the movements have always been influenced by either major world events such as wars, local legislation and policies, or local and foreign economic activities such the Great Depression of 1930s–40s. These events are listed in Table 1. The economic events included Otago's peak gold production in the beginning of the 1860s and the growth in the export of meat and dairy products, facilitated by the use of refrigerated ships from around 1900 to 1921. The other economic events were the 1950s' period of economic prosperity because of

wool demand which led to an increase in permanent and long-term arrivals to a peak net inflow of 22,200 in 1952 (Statistics New Zealand, 2010a).

On the other hand, legislative reasons that resulted in changes in trends of migration included the immigration law that provided free entry to New Zealand for people of British and Irish descent, and at the same time imposed restrictions on other immigrants. For example, it has been stated that of the 13,845 permanent long term arrivals in New Zealand in 1922, only 4% were from non-Commonwealth countries. Also, at this time the British and New Zealand governments assisted migration to New Zealand by subsidising the fares of eligible migrants (Statistics New Zealand, 2010a; Wilson, 2013).

Table 1  
*Major Events that Influenced Migration into and out of New Zealand*

<b>Period</b>	<b>Event</b>
1861–1863	Boom in gold production in Otago.
1873	Introduction of free passages from the United Kingdom.
1880	End of free passages from Britain to New Zealand.
1888	Low commodity prices in New Zealand cause depression. Boom in Melbourne gold.
1890s	Australia experiences an economic depression - 10,400 net migration in 1893.
1904	1904 reinstatement of assisted passage from the United Kingdom.
1900s–1921	New Zealand boom in export of meat and butter. Droughts and depression hit Australia.
1920	Immigration Restriction Amendment Act enacted- favouring British Migrants.
1940s	Introduction of air travel to New Zealand.
1950s	Period wool demand and economic prosperity.
1958	British migrants to be skilled and experienced only.
1967	Recession due to 30 percent drop in wool prices.
1973	Trans-Tasman agreement signed.
1975	Assisted immigration scheme for British migrants ends.
1987	New immigration act -favours education and experience (Asian migrants increase).
1991	Points system introduced.
2009	Global recession: weaker labour market conditions in Australia.

*Note.* Adapted from Statistics New Zealand (2010a) and Statistics New Zealand (2010b).

In addition to the events that led to inflows, there were other events that led to outflows such as the World War II at the end of 1939. The latter subsequently affected both arrivals and departures in the early 1940s. Between 1968 and 1969 there were also

notable departures where in this period there was a net loss of 11,000 migrants (in a population of approximately 2.7 million) compared to the 1930s average of 3,400 departures annually (in a population of 1.5 million). This loss was due to the 1967 drop in prices of wool because of competition from synthetic products and the subsequent recession (Statistics New Zealand, 2010b; Wilson, 2013).

Towards the end of the 20th century there were changes in immigration that led to multiculturalism in New Zealand. These changes were the 1987 Immigration Act that favoured education and experience as opposed to a source country like the United Kingdom. Another legislative change was the 1991 points system which led to a rise in Asian immigration. This can be seen in the fact that the countries that were the main sources of net permanent and long-term migration to New Zealand in 2009 were the United Kingdom (9,100), India (6,000), and China (3,800) (Statistics New Zealand, 2013b).

### **1.2.3 General migration destinations and sources for New Zealand.**

While movements to Australia are more concerning, as will be discussed, it is also important to acknowledge that there are notable movements to other destinations. This is important because the medical practitioners who are the subjects of this research may sometimes be assumed to be part of these waves of movements as they live in the same society. One survey (Kea Zealand, 2012) showed that the first choice of those who have gone overseas is Australia (35%), followed by the United Kingdom (27%). For example, 31,600 New Zealand citizens left permanently by the year ending November 2007 and of these, the majority (27,800) chose Australia as their destination. The other favoured destinations in the same period had minor proportions; for example, 1,400 went to the United Kingdom while the United Arab Emirates and Canada both shared the smallest proportion of 400 (Kea Zealand, 2012; Statistics New Zealand, 2010a). Overall, the Organisation for Economic Cooperation and Development (OECD) indicated in 2000 that just over 400,000 New Zealanders live overseas and 316,000 of these are in Australia (Kea Zealand, 2012). These figures must be viewed against the estimated the New Zealand population figures of approximately 3.8million in the year 2000 (Statistics New Zealand, 2013c).

### **1.2.4 What about the trans-Tasman migration?**

In addition to movements into this country by voyages of discovery and settlers from Britain and Commonwealth countries, New Zealand has a history of notable movements

to and from its neighbouring country, Australia (Green et al., 2008). Reasons for the trans-Tasman movements are attributed to socio-political and economic events within these two countries, and internationally. Some of the political reasons for these movements include the fact that from around 1788 to approximately 1838 New Zealand was governed from New South Wales. This made the relationship between these two countries appear to be synonymous to that of regions within a country, rather than an international one (Department of Immigration and Citizenship, 2013a; Wilson, 2013).

During some periods in history, the Trans-Tasman movements were seen to be in either direction, depending on major economic activities in the era concerned. For example, as has been stated above, in the 1860s many Australians moved to New Zealand, attracted by the gold fields in Otago and Westland. Whereas in the 1880s, the depression in New Zealand (caused by a slump in land and commodity prices) acted as a push factor for people to migrate to Australia (Walrond, 2011). By this time there were also pull factors to Australia caused by a boom in gold production in Melbourne, as can be seen in Table 1. Although the movements were in both directions for about a century from the 1840s to 1950, the net gains tended to be in favour of New Zealand. For example, in the 1881 censuses both of Australia and of New Zealand, Australians living in New Zealand numbered 16,100 while New Zealanders living in Australia were about 6,800 (Department of Immigration and Citizenship, 2013a). From the 1960s to the current period, however, the gains have always been in favour of Australia. For example, in the 1971 Australian Census 80,466 New Zealand-born people were living in Australia, but 10 years later in 1981 this number had more than doubled to 176,713. This number continued increasing to 276,070 in 1991. At that stage, the number of Australians living in New Zealand was about 52,600 (Department of Immigration and Citizenship, 2013a). The Australian migrant population figures in New Zealand must be viewed in relation to the population size in Australia which ranged from 14 695 000 to 17 065 000 between 1981 and 1991 (Australian Bureau of Statistics, 2012).

Other figures indicate that by 2001, according to the censuses of both countries taken in different months of the same year, New Zealand born people resident in Australia were 356,000. This was equivalent to approximately 2% of the total population in Australia (Bedford, 2003). On the other hand, a total of 56,300 of those born in Australia lived in New Zealand, making up an equivalent of 1.5% of the total New Zealand population. Later in 2006 the Australian Bureau of Statistics indicated that 477,000 New Zealand-born people were living in Australia while New Zealand's Australian-born population

was 62,634 out of an estimated resident population of 20 697 000 in that country. Current figures quoted for 30 June 2012, indicate that 647,863 New Zealand citizens were present in Australia (Department of Immigration and Citizenship, 2012).

### ***Trans-Tasman travel arrangement.***

From 1973 to 1994 New Zealanders and Australians have benefited under the 1973 Trans-Tasman Travel Agreement, which allowed residents/citizens to live and work in one another's country without seeking immigration authority. From the end of 1994, there was a slight change where all non-citizens in Australia were required to have a Special Category Temporary Residence Visa in their passports with New Zealanders being included in this requirement (Green et al., 2008).

In February 2001, there was yet another new development which included strict requirements that New Zealanders obtain permanent residence if they wished to access social security, gain citizenship or sponsor other people for permanent residence. These requirements were imposed as immigrants from other countries were then seen to be using New Zealand as 'a back door' entry to Australia. For example, the Australian Bureau of Statistics indicated that for the June 2000 year, 31% of New Zealand citizens migrating permanently to Australia were not born in New Zealand. These new developments have been criticised for favouring Australia as they made it difficult for low-skilled New Zealand citizens to access social benefits (Birrell & Rapson, 2001).

It can be seen from what has been said above, that although the migration movements have traditionally been in both directions, the actual numbers of New Zealanders in Australia seem to be growing by larger margins. This has implications for future population planning and specifically for workforce planning, as will be discussed in later chapters.

As has been noted above, the migration in and out of New Zealand has, in addition to world trends, followed the changes in the general social landscape in this country. The discussion of the general social and economic landscape in this country can provide the context for understanding the trans-Tasman migration phenomenon.

### **1.2.5 New Zealand's socio-economic landscape and trans-Tasman migration**

The issues of migration can be embedded in certain histories and the current social, political and economic situation. To understand the issue being researched, it is worth considering the overall case in its real-world context (Scholz & Tietje, 2002). The

contextual issues around the subject of research will therefore be explored in detail by examining the general socio-political landscape of New Zealand.

The general socio-economic landscape in New Zealand has been cited among the reasons for why both natives and immigrants tend to prefer to live in this country (New Zealand Herald, 2011a). Independent reputable international measures which cover the rubric of national image, lifestyle and liveability have shown that either New Zealand as a country, or Auckland its major economic city, has fared well against comparable states or cities. These reputable surveys such as the Mercer Quality of Living Survey and the Economist Intelligence Unit's Global Liveability Report rank countries on an annual basis on liveability and other quality of life measures (Mercer, 2012; The Economist Intelligence Unit, 2011). Each of these surveys is designed for a specific purpose and hence each of them defines liveability in a different way. Such definitions of liveability have been adopted and utilised in different fields such as business investment and individual's migration decisions.

Within the Economist Intelligence Unit's survey, themes of these measures are mainly around low personal risk and effective infrastructure but it does not include climate and cost of living. In its 2011 scores, Auckland was ranked number 10 (The Economist Intelligence Unit, 2011). While this can be considered an impressive score among those considering migrating from many European countries, it must be noted that in the context of trans-Tasman migration such a ranking should be compared with Australian cities. In this regard Table 2 shows that three Australian cities (Melbourne, Sydney and Adelaide) ranked ahead of Auckland, with Sydney standing out as number one. Indeed, two of these cities, Sydney and Melbourne, are one of the major destination centres for New Zealanders.

In the Mercer Quality of Living survey, which takes into consideration important criteria related to social life such as safety, education, hygiene, health care, culture, environment, recreation, political-economic stability and public transportation, Auckland fared well in 2011; coming third (New Zealand Herald, 2011a) as can be seen in Table 2. Although this survey was originally designed to assist multinational companies to make economic decisions, it has important country information which is captured in the travel and tourism industry materials, hence influencing migration decisions.

Table 2

*Instances where Auckland Ranked within the Top Ten Countries by Worldwide Measures*

<b>The Economist Intelligence Unit's Global Liveability Report</b>		<b>Mercer 2011 Quality of Living Survey</b>	
RATING	City	RATING	City
1	Melbourne	1	Vienna
3	Vancouver	3	Auckland
6	Sydney	6	Vancouver
8	Perth	8	Geneva
9	Adelaide	9	Bern
10	Auckland	10	Copenhagen 1

*Sources:* The Economist Intelligence Unit (2011) and Mercer (2012).

A closer look at these measures shows that another consistent feature is that major Australian cities, especially Sydney and Melbourne, are always ranked ahead of New Zealand. This might point to why trans-Tasman migrants see reason to move to Australia, especially to these cities. Indeed other researchers (Poot, 1995) indicate that even within Australia, there are noticeable movements in large numbers between states. Usually these are the states which either have the best economic growth, or the best weather, or simply access to coastal areas (Green et al., 2008). These cities mainly include Sydney, Brisbane, Melbourne and Perth. In 1996 for example, it was found that 25% of migrated New Zealanders lived in Sydney, 24% in Brisbane, 12% in Melbourne, 10% in Perth, and a further 6% in other cities. The remaining 24% were scattered in other areas. In this instance, the forces that are operating within Australia seem to also have an influence, encompassing New Zealand as part of its regional areas (Department of Labour, 2012; Poot, 1995).

According to the New Zealand Herald (2011), New Zealand often entices migrants who cite attractions such as ready access to the beaches, a temperate climate, scenic features such as hills, volcanoes, harbours and smaller islands of tourist interest such as Great Barrier and Waiheke Islands. Another attraction that distinguishes New Zealand from the most potentially competing countries in the OECD is peace, and safety from crime; levels of which appear to be relatively minor if compared with other developed world cities. In terms of Mercer's personal safety index which considers crime rates, effectiveness of law enforcement, internal stability and international relations, cities in Australia are ranked between 20 and 60, while London, Paris or American centres do not appear in the top 50 (New Zealand Herald, 2011a).

Two areas where New Zealand has not fared well are in the measures of technological development and socio-economic inequality. New Zealand has been found to have had the greatest increase in inequality in the OECD in the last 30 years (Guthrie & Morgan, 2011; Organisation for Economic Corporation and Development, 2011). Although technological advancement may not bear much relevance to the migration of non-skilled labour professionals, other skilled groups tend to consider this when making their migration decisions. Also, in relation to the general population it can be assumed that young people consider technological advancement in their migration decisions to a country. To find out the perception of visitors about the technological status of the country, New Zealand Trade and Enterprise (NZTE) conducted qualitative and quantitative interviews with visitors to one technological innovation called 'The Cloud'. These visitors were from 39 countries, and of the 302 visitors interviewed 210 were from overseas, mostly the United Kingdom, Australia and the United States. In this study it was found that before the Rugby World Cup 2012 most developed world countries tended to perceive New Zealand as not technologically advanced. About two-thirds of the Australian visitors surveyed did not rate New Zealand as technologically advanced. For example, only 34% of Australian and 35% of Europeans thought New Zealand was technologically advanced (New Zealand Trade and Enterprise, 2012).

Moreover in the socio-economic sphere New Zealand had the Canterbury earthquakes as a major natural disaster. This had a bearing on the economic growth but most directly on the emigration of a large number of people from Christchurch which is the country's second biggest city. Christchurch was one of the attractive cities in New Zealand, notably because of its mountainous areas that provide scenic views of special significance. However, it must be noted that Australia too has had major natural disasters such as the Queensland floods and bush fires in various parts of the country such as was experienced as recently as January 2013. Despite some similarities between the two countries such as the temperate climate and coastal areas, Australia has a far larger and more diversified economy. This can be an attraction for migrants lured by economic and environmental factors (Poot, 1995, 2009).

### **1.3 Problem and Research Questions**

The discussion above focused on trans-Tasman migration of the general population in New Zealand. The focus of the research was the trans-Tasman migration of a specific population group: that is, the medical practitioners. In relation to the population movements described above, it is here argued that the medical practitioner movements

have in some instances followed similar trends. For example, the long history of favoured and facilitated migration of migrants from the United Kingdom is mirrored in the fact that New Zealand has a large number of international medical graduates (IMGs) from the United Kingdom and Ireland (Cullen, 2013). The medical practitioners of New Zealand have also not been immune to the trans-Tasman migration phenomenon. Similar to the general population, the medical practitioners too have been noted to be moving to Australia in numbers that are larger than those of the ones who migrate in the opposite direction. Another similarity with the trends of the movement of the general population to Australia has been the fact that the IMGs-practitioners who migrate to New Zealand from overseas also stay in this country for a number of years and then migrate to Australia.

In terms of numbers, this thesis draws on estimates from the Medical Board of Australia and immigration data (Birrell, Rapson, Dobson, & Smith, 2004; Health Workforce Australia, 2013) and also the figures of Health Workforce Australia (2013) which indicate that there are 2112 New Zealand medical practitioners in Australia making an average of 264 per state, as can be seen in Table 3. Based on figures shown in Table 3, the number of New Zealand medical practitioners who work in each state of Australia ranges from 73 in the Australian Capital Territory (ACT) to 588 in the New South Wales (NSW).

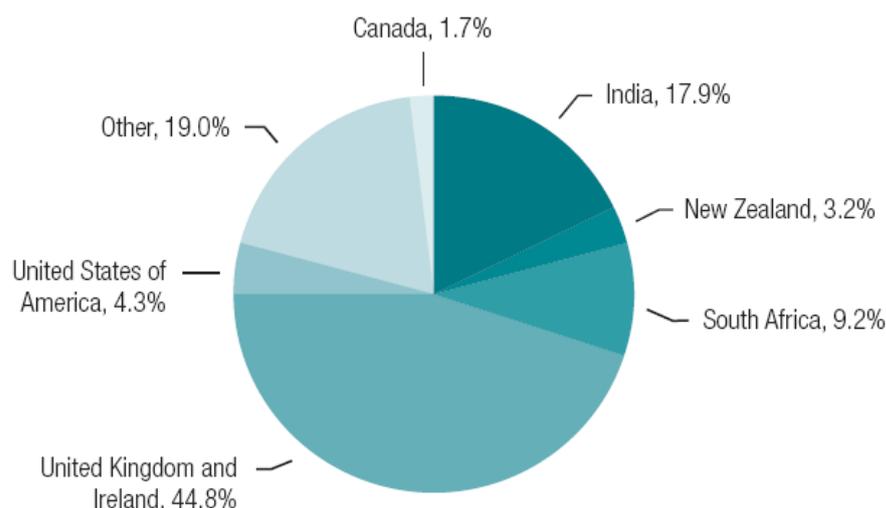
Table 3  
*New Zealand Trained Medical Practitioners Registered in Australian States*

	<b>NSW</b>	<b>VIC</b>	<b>QLD</b>	<b>WA</b>	<b>SA</b>	<b>TAS</b>	<b>NT</b>	<b>ACT</b>	<b>Total</b>
Number	588	500	495	240	114	51	51	73	2112

*Note 1.* The full names are: Victoria (VIC), Queensland (QLD), Western Australia (WA), South Australia (SA), Tasmania (TAS) and Northern Territory (NT)

*Note 2.* Adapted from Health Workforce Australia (2013).

Among specialists only, estimates by the Association of Salaried Medical Specialists (ASMS) indicate that in the 18 months to July 2007, New Zealand lost at least 80 specialists to Australia alone. This number is large given that New Zealand has an equivalent of 80 senior medical specialists practicing at a time in any regional hospital (Association of Salaried Medical Specialists, 2010). Figures from the Australian Medical Council show that New Zealand is the fourth largest source country for specialists in the Australian workforce, contributing 3.2% of this country's specialist workforce as shown Figure 1.



Note. Adapted from the Medical Training Review Panel (2012).

Figure 1. Proportion of specialists with qualifications approved by AMC in 2010.

Figure 1 also shows that the countries that lead in supplying IMG specialists to Australia ahead of New Zealand are United Kingdom/Ireland (44.8%), India (17.9%), and US (4.3%).

On the other hand, New Zealand has comparably fewer Australian medical practitioners working as IMGs. For example, the figures from the Medical Council of New Zealand (MCNZ) indicate that from 2004 to 2012 the Australian medical practitioners held in the register were approximately 156 in total. The range of registrations per year in this mentioned period was between 9 and 36 making an average of 17 medical practitioners per year (Cullen, 2013).

Having given the background about the medical practitioner emigration to Australia it is important to further justify the need to carry out a study of this issue.

#### 1.4 Justification of the Study

Issues of medical migration from one country to another have a long history of being researched dating back to as far as the 1960s and 1970s (e.g., Feldstein & Butter, 1978; Fortney, 1972; Patinkin, 1968) to more recently (Morton, Hider, & Schaab, 2008; Mullan, 2005). However, these studies have either chosen diverse contexts or a wide range of variables of interest for analysis. Such a scenario has left countries such as New Zealand with less data that is derived from local studies that could be of use to workforce planners. Indeed, it has been acknowledged that little is known as to the reasons why medical practitioners in different levels of their appointments leave

New Zealand and what may encourage them to return (Commission on the Resident Medical Officer Workforce, 2009).

Previous studies have also tended to focus on movements from developing countries to the developed world, justifiably because of the ethical issues presented by such movements (Dwyer, 2007; Eyal & Hurst, 2008; Taché & Schillinger, 2009). The study of the New Zealand-Australia movements adds to current knowledge in this area because it has a different focus: that of movements from one developed English-speaking country to another. A study of movements from one developed English-speaking country to another is important; as it has been noted (Simoens & Hurst, 2006; Zurn & Dumont, 2008) that a large proportion of medical practitioners in OECD countries such as Australia, Denmark, France and Ireland are from other developed European countries.

Significantly, New Zealand presents itself as a unique case among English-speaking developed world countries and among OECD countries for four reasons noted in this study. Firstly, New Zealand has been noted to be the highest exporter of the medical workforce among the OECD countries, while at the same time it has the highest number of immigrant medical practitioners among the OECD countries (Simoens & Hurst, 2006; Zurn & Dumont, 2008). This resulted in scholars such as Callister, Badkar and Didham (2008) stating that among these countries New Zealand stands out both in terms of in-flows (opportunity) and outflows (challenges) of medical practitioners. Secondly, and ironically, New Zealand has been noted to be one of the countries in the OECD countries with a high brain waste, specifically of the immigrant medical workforce (Mpfu & Hocking, 2013). This brain waste is evident in the lack of national structures that facilitate the registration of immigrant medical practitioners through support systems such as bridging courses. Thirdly, although New Zealand loses the most medical practitioners among the OECD countries, it trains fewer medical practitioners than the OECD average (Gorman, Horsburgh, & Abbott, 2009). Fourthly, in terms of numbers it has been observed (Zurn & Dumont, 2008) that Australia tends to be the main destination country for New Zealand migrants in general with the same trend applying to medical practitioners. For example, in 2001, 59% of New Zealand born medical practitioners living overseas were in Australia (Zurn & Dumont, 2008). The direction of movement tends to be one way in favour of Australia and speculations have been that this is due to comparatively higher wages and other enhanced opportunities

(Association of Salaried Medical Specialists Report, 2010; Commission on the Resident Medical Officer Workforce, 2009).

Furthermore, in terms of flows to Australia, New Zealand's close association and its geographical position in relation to Australia has been seen as a unique context for migration. The proximity to Australia and the historical, social, political and cultural similarities are mainly the major unique elements which should not be ignored. Such similarities tend to be strengthened by bi-lateral arrangements such as the Trans-Tasman Mutual Recognition Arrangement between Australia and New Zealand (Cook, 2009). Specifically, in the medical field there are transnational medical colleges between these two countries as well as arrangements for mutual recognition of qualifications and professional registration. The transnational colleges include such specialists as emergency medicine specialists, anaesthetists, surgeons, physicians, ophthalmologists, medical administrators, pathologists, gynaecologists and psychiatrists. Although some of these colleges are separate they have recognition of qualifications and members can work in both countries on application (Health Workforce Australia, 2012).

### **1.5 Purpose and Scope of the Study**

This study investigated the issue of New Zealand-to-Australia medical practitioner movements and presented it as a complex phenomenon of medical migration scenarios. This study also made an analysis and review of theories related to global medical practitioner movements and situated New Zealand in the global competition context, thereby assisting in understanding the regional dimension of the issue. The study took a particular focus on an analysis of the forces that make New Zealand a high exporter and high importer country in the medical practitioner workforce. The aim was to identify factors that facilitate or inhibit the medical graduates' decisions to migrate to Australia and suggest a conceptual framework of understanding these. This involved a case study investigation of medical practitioners and key stakeholder opinions on factors that contribute to emigration and how the issue of emigration of New Zealand medical practitioners to Australia can be managed to boost medical workforce adequacy.

The aims, objectives and research questions are listed below. These will help to further clarify the purpose of the study.

## **1.6 Aims**

- a) To explore and develop a conceptual framework of the factors that facilitate or inhibit medical graduates' decisions to migrate to Australia.
- b) To find out in a case study instance how the New Zealand health system can manage the emigration of medical practitioners to Australia.

## **1.7 Objectives**

- a) To examine the dominant characteristics of the New Zealand medical workforce scenario and particularly to evaluate its contribution to workforce adequacy and medical migration to Australia.
- b) To find out why medical practitioners are making the choices about either staying in New Zealand or about migrating specifically to Australia, and what potential there is for workforce stakeholders to influence those choices.
- c) To find out how the medical practitioner movements from New Zealand to Australia are affected or related to other issues of global dynamics of medical practitioners.
- d) To identify and develop a conceptual framework for the migration of New Zealand medical practitioners to Australia.

## **1.8 Research Questions**

- 1. What are the dominant characteristics of the New Zealand medical workforce scene and how do these contribute to issues related to adequacy and migration to Australia?
- 2. What are the opinions of medical practitioners and selected key workforce experts about causes and ways of managing medical workforce migration from New Zealand to Australia?
- 3. How are core issues underpinning medical practitioner migration from New Zealand to Australia affected or related to the global dynamics of medical practitioner movements across borders?

4. What is a possible conceptual framework for representing the factors underlying the New Zealand medical practitioners' decisions to stay or migrate across the Tasman to Australia?

## **1.9 Significance of the Study**

This study may be of use to workforce planners, employers and other workforce stakeholders concerned with medical workforce issues. The medical workforce has not been immune to reforms in the health system, changes in government and other policy changes. Some of the policy changes made may have influenced the working conditions. Hence, this study comes at a moment in time when more knowledge is needed about the impact of such systemic changes. In the past five years, commissions of inquiry into the working conditions of medical practitioners at various levels of their employment have taken place. However, the recommendations of some of these have still not been implemented. This work may provide further evidence to support actions that may need to be taken in workforce planning.

## **1.10 Definition of Terms**

As a prelude to the chapters that follow, it is important to explain the terms that will be consistently used in this work. These are 'two trans-Tasman countries', 'selected comparable English-speaking developed countries' (also competing English-speaking countries), 'medical practitioner' and 'trans-Tasman migration'. In this work the term 'two trans-Tasman countries' is used to refer New Zealand and Australia. The term 'selected competing English-speaking developed countries' is used in this work to mean selected English-speaking countries which are New Zealand, Australia, the United Kingdom, Canada and the United States of America (US) (competing English-speaking countries). These countries are often used in health systems literature for bench-marking health care standards among these countries including New Zealand (Review Body on Doctors' and Dentists' Remuneration, 2012). This term will be used regularly in reference to countries that have been seen to be competing with New Zealand in terms of medical workforce and health systems standards.

The term 'medical practitioner' is used loosely to refer to anyone registered to practise medicine at any stage of their career, including general practitioners (GPs). Lastly, 'trans-Tasman migration' in this work refers to the permanent or long term migration between New Zealand and Australia of people who have either worked in one of these countries but moved to the other after having been work permit holders or residents or

citizens in either of these countries. People who have moved between these countries for the purpose of visiting are excluded in this definition.

### **1.11 Conclusion**

From what has been discussed, it can be tentatively concluded that the dynamics of the population movements between New Zealand and Australia seem to be embedded in factors such as the socio-economic and physical environment in these two countries. Such background issues as described in this chapter are important as part of the preliminary inquiry to understand why New Zealand medical practitioners either choose to stay or emigrate to Australia. However, it is anticipated that the issues of medical practitioners' migration to Australia may be more complex and broader than what this background chapter has given. Hence the social, economic and political factors discussed above are only given to provide the context for the movements rather than conclusively being seen as the factors causing migration. The material examined so far help in highlighting the significance of this study and its justification. The objectives and research questions shape the direction of the chapters that follow and thus the conceptual framework of the study. The next chapter reviews the literature describing the key issues in workforce adequacy, with a particular reference to New Zealand and Australia and other selected English-speaking developed world countries such as the United Kingdom, US and Canada.

## **Chapter 2: The Medical Workforce Supply and Demand in New Zealand and Australia: A Literature Review**

### **Introduction**

This chapter reviews literature about medical workforce supply and demand in New Zealand and Australia. It then gives a brief overview of the supply and demand issues in selected comparable English-speaking developed world countries such as the United Kingdom (UK), Canada, and the United States of America (US). It must be emphasised that the medical workforce supply and demand situations in the other competing English-speaking countries are only examined insofar as they affect workforce supply and demand in New Zealand. Similarly, rather than being examined in great depth, the Australian state of affairs is examined only in regard to issues faced by this country have an influence on the New Zealand workforce planning scene. Holistic workforce supply and demand models that integrate well with a qualitative research framework, as opposed to scientific models which do not, are introduced and defended. This chapter also introduces a strategy that was utilised to search for studies about issues of workforce supply and demand in New Zealand. The study research questions addressed in this chapter are:

- What are the dominant characteristics of the New Zealand medical workforce scene and how do these contribute to medical practitioner migration to Australia?
- How are core issues underpinning medical practitioner migration from New Zealand to Australia affected or related to the global dynamics of medical practitioner movements across borders?

Before reviewing literature on the workforce scenario, it is important to first consider the methods of forecasting workforce needs and to specify how the terms supply and demand will be used in this study. Although supply and demand are mainly terms used in economics connoting quantitative measures, in medical workforce literature these terms relate to a complex myriad of forces that contribute to adequacy, or lack of adequacy, of medical practitioners in a particular health system.

## **2.1 Health Workforce Adequacy and the Inherent Complexities**

Workforce planning approaches are ways of forecasting workforce needs for a specific population; for example a country. Four workforce planning approaches will be discussed in this section and these will be put into two major classes, which are the deterministic approaches and the holistic approaches. The deterministic approaches include mathematical models (Orcutt, 2007) and the econometric models, while the holistic ones include the need/utilisation models and the benchmarking models (Birch et al., 2007; Murphy, Alder, & MacKenzie, 2008).

Mathematical models use some numerical formulae to predict the needs by process of simple extrapolation or by employing trend analysis, which is a forecasting technique that relies primarily on historical data to predict the future. These models employ deductive techniques from such fields as economics and statistics. Such techniques encompass making estimates of the relationship over time between health workforce demand and its determining factors (Orcutt, 2007). The mathematical formulae used by these models, however, lack complexity in that they are often mechanistic and not adaptable to the actual health system needs (Orcutt, 2007). They assume stability of trends. This assumption makes them unsuitable for workforce scenarios that are negotiated by multiple workforce stakeholders who are policy planners, provider stakeholders and consumer stakeholders. These models will not be used in this research, which is underpinned by the philosophical thinking of a case study methodology that values the importance of context.

Economics models (Maynard, 2006) forecast the workforce needs by modelling demand and supply side flows to identify how, if at all, adequacy (defined as equilibrium) can be achieved. Since these models make assumptions based on past trends of workforce, their projections of activity trends are often judged as ambitious. They also assume a condition where the numbers of personnel at baseline, and future projections and supply, remain at the same level as resources. This is the major weakness of these approaches. It is important therefore to mention that these models are not consistent with the philosophical thinking behind a case study methodology which is holistic in nature, as is the case in this research.

Other models are holistic in nature as they are based on the context of what is happening in regard to a health system's dynamics. These include needs/utilisation-based and benchmarking models. Needs-based models utilise epidemiological estimates

of disease characteristics and rates as indicators of current and future healthcare needs of the population under consideration. Through the examination of data such as mortality and morbidity rates, norms for the adequate delivery of services to address the disease characteristics, and expert opinion of staffing, are converted into service requirements (Birch et al., 2007; Maynard, 2006; Murphy et al., 2008).

Another dimension of the need or utilisation model is that it considers patterns of service delivery and utilisation of health services in determining requirements for future numbers of providers. The sources of information for this model include population projections, trends in healthcare utilisation, and trends in delivery patterns. Hence, this thesis contends that this model is holistic in approach. It assumes that the current trends reflect desirable patterns of delivery and that the future population will follow similar trends in utilisation rates. These needs-based models, which have mainly been developed and defended in Canada by Stephen Birch and others (Birch et al., 2007), assume that the requirements for human resources are dependent on four separate elements: demography, epidemiology, standards of care, and provider productivity. For example, improvements in health status would reduce the total service requirements in the population and improvements in productivity would increase the supply of services from the stock of providers (Murphy et al., 2008; O'Brien-Pallas et al., 2001).

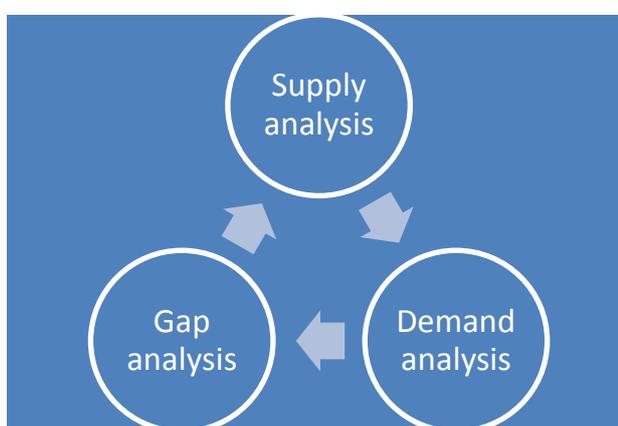
Benchmarking involves the identification of “best practices”, in which relatively low levels of healthcare provider utilisation occurs without apparent compromise to the health status of the population. Adjustments for variation in patient characteristics, disease prevalence/severity, practice location, and other key health and socio-economic factors can be made and used in the development of requirement for providers. Thus, these models are also holistic in nature (Murphy et al., 2008; Orcutt, 2007).

Two key aspects must be emphasised at the outset. Firstly, mathematical models do not fit with the case study methodology adopted for this research, which requires a case to be studied as a whole. Secondly, the economics models will not be utilised because demand in health services is not the same as demands for other goods and services where other variables such as universal access to health care, government subsidies and regulations do affect demand and supply (Health Workforce Australia, 2012). While deterministic trends analyses will not be rejected entirely in this research, it is useful to mention that they will be explored and then connected to real contextual issues to derive their meanings. The approaches to be taken in this study are the needs-based and

benchmarking approaches because they take a holistic approach and are therefore in line with case study methodology.

### **2.1.1 Forecasting of workforce needs using the needs/utilisation-based models and benchmarking models**

The forecasting of workforce needs using the needs/utilisation-based models and benchmarking models involves discussing issues under the broad categories of supply, demand and actions needed. These elements have been proposed as a framework by the basic workforce planning model of the US Department of Health and Human Services (HHS) (1999). The assumptions of the HHS planning model are that workforce planning should consist of three elements: supply analysis, demand analysis and solution/gap analysis as shown in Figure 2.



*Figure 2.* Elements of the basic workforce planning model.

The HHS stipulates that supply analysis should be the beginning phase of any workforce planning (O'Brien-Pallas et al., 2001; World Health Organization, 2010b). Supply analysis, therefore, involves predicting supply by looking at current manpower stocks and looking at future recruitment, wastage, working conditions, and labour market trends. This process involves analysing staff demographics, and identifying employment trends using data on the present staff. Additionally, and most importantly, it involves forecasting how turnover will affect the organisation if no action is taken. The last aspect is very important in this study, as the concern is turnover resulting from emigration to Australia. Therefore in the supply analysis phase, this chapter analyses literature sources pointing to the profile of the New Zealand workforce. This encompasses looking at the current numbers of medical practitioners, their geographical distribution, their demographic makeup, and losses and replenishing measures such as student intakes and recruitment strategies.

The next phase of the basic workforce planning is demand analysis which measures future activities such as workloads, productivity changes, market forces, workforce strategy and trends; for example, employee preferences for social life leading to shorter hours being worked.

The last phase, which is especially useful in evaluating workforce planning strategies, is the gap analysis. This process compares the supply and demand analysis to understand the differences between the “now” and the future. These strategies to be analysed may involve examining training, remuneration, career planning, redundancies and further consideration of all the factors under demand and analysis (Anderson, 2004; O’Brien-Pallas et al., 2001).

The supply, demand and the gap analysis elements of the basic workforce planning model were utilised to conceptualise themes identified in the literature reviewed in the following section.

### **2.1.2 Literature search strategy.**

A number of studies have examined the issues of medical migration from one country to another (e.g., Morton et al., 2008; V. Robinson & Carey, 2002). Other studies have also examined medical workforce issues specifically in New Zealand or Australia (e.g., Gorman & Brooks, 2009; Keans, Myers, Adair, Coster, & Coster, 2006; Rolfe, Pearson, O’Connell, & Dickinson, 1995). This current study, however, focuses particularly on the supply and demand issues of the medical workforce in New Zealand as well as how these issues are affected by migration to Australia. A decision was therefore made on key search words and phrases to capture themes around these issues. The key search words that were used were “New Zealand/Australian medical workforce” and “New Zealand/ Australian doctors” in combination with “migration”. The word “medical” was substituted with “health” in each instance of searching as some medical workforce issues were covered under the umbrella term of health workforce. The databases searched using the above stated key words were Google Scholar, Academic Search Premier, MEDLINE (via PubMed, ProQuest Central and PsycINFO), Psychology and Behavioural Sciences Collection, Scopus, Social Sciences Citation Index, Sage Full Text Collections, and JSTOR.

The inclusion criteria therefore comprised articles making specific reference to workforce issues such as supply/demand, working conditions and medical education

initiatives that are linked to boosting workforce supply, either in Australia, New Zealand or in other competing English-speaking countries. In terms of inclusion dates, in phase one and phase two searches, articles related to workforce issues were limited to those from 1990 to initially 2011. Later articles were included as time passed in 2012 and 2013. Articles before 1990 were only sought in specific instances for background information. The exclusion criteria were articles related to clinical procedures in medicine or health issues related to patients.

In the first phase of searching, the key words were used to search the databases for articles discussing the migration of medical practitioners from New Zealand to Australia. The searches in the literature also aimed to obtain articles with background information that was needed to supplement other information, or for benchmarking purposes with New Zealand and Australian medical workforce themes. The other background information was sought from articles including those that were focusing on health workforce issues impacting all health professionals. Articles on migration of professionals who were not medical practitioners were also included but only for background information. The medical workforce information about countries other than New Zealand and Australia which were classified under the umbrella term of English-speaking developed world countries, was also included. These countries were Canada, the UK, and the US. Articles about the health workforce in any other country were excluded. Background articles were limited to those from 1990 to current. The reason for this larger timeframe was mainly to establish trends.

The second phase of searching involved utilising the designated keywords to search documents such as reports on government websites both in Australia and New Zealand. This inclusion was extended to ministries responsible for labour, migration, and health. Searches were also made in websites of government agencies such as Statistics New Zealand, and the Australian Bureau of Statistics. This phase also included manual searches in the Auckland University of Technology (AUT) library for textbooks and documents that could be extracted using the key words mentioned.

The third and fourth phases of the search were conducted for the purposes of triangulating data. Hence, the third phase was a strategy of obtaining literature by making formal request for documents that could not be accessed online from relevant organisations such as the registration authorities and government ministries and agencies. For example, specific information about medical practitioner numbers and

migration was requested from Statistics New Zealand and some medical practitioner organisations/authorities such as the Medical Council of New Zealand.

The fourth phase was also for triangulation purposes. Documents from governments of competing English-speaking countries were sought. In addition, databases of reputable international organisations that make consistent reference to New Zealand such as OECD workforce data and World Health Organisation databases were searched. Some of these key documents that were used to triangulate data are listed in Table 4.

Table 4  
*Sample of Documents used for Triangulation of Literature Sources*

<b>Country</b>	<b>Author/Commissioning board</b>	<b>Title</b>	<b>Year</b>
New Zealand	The Director-General of Health, New Zealand	Treating People Well: Report of the Director-General of Health's Commission on the Resident Medical Officer Workforce.	2009
New Zealand	Medical Training Board	The Future of the Medical Workforce: First Annual Report November 2007–December 2008.	2008
New Zealand	Ministry of Health	Reshaping Medical Education and Training to Meet the Challenges of the 21st Century: A Report to the Ministers of Health and for Tertiary Education from the Workforce Taskforce.	2007
Australia	Health Workforce Australia	Health Workforce 2025: Medical Specialties.	2012
UK	NHS	Review of compensation levels, incentives and the Clinical Excellence and Distinction Award schemes for NHS consultants.	2012
Canada	Canadian Institute for Health Information	National Physician Database, 2009–2010.	2010
US	Association of American Colleges	The 2011 State Physician Workforce Data Book.	2011

### **2.1.3 Rigour and limitations of data sources.**

Accuracy in regard to the number of New Zealand medical practitioners in Australia is affected by the fact that reliable sources such as the Medical Board of Australia tend to quote numbers of medical practitioners with New Zealand as the country of first medical qualification rather than as the country where a medical practitioner last practised. In this way international medical graduates (IMGs) are not captured accurately. This can potentially distort statistics, as the IMGs who last practised in

New Zealand will not be captured, given that the IMGs from New Zealand are highly mobile. Among specialists, accuracy is hard to achieve because those who migrated from New Zealand pose some ambiguities as they are officially not called overseas trained if they are affiliated to an Australasian college that covers both New Zealand and Australia; for example, the Royal Australasian College of Physicians.

## **2.2 Key Findings from the Literature**

The search strategy yielded literature which was grouped under the themes of supply, demand and gap analysis. As is the case worldwide, it was noted in literature findings that New Zealand faces issues principally related to the emigration of medical practitioners; mainly to Australia. In addition, it was found that New Zealand also faces other complex issues related to the supply and adequacy of the medical workforce. Indeed, one of the key workforce experts in New Zealand medical workforce planning, once-indicated that speaking from a research stand point, the key issues that are pertinent to medical workforce planning are adequacy, recruitment, migration and retirement (Gorman, 2011). Other issues are related to geographical distribution, female participation, the ageing workforce, preferences of the younger workforce for a social life rather than work life, medical practitioner working hours, and speciality composition of the medical practitioner workforce. It is noteworthy that most of these issues are also faced by other English-speaking countries in the developed world including Australia (Brooks, Lapsley, & Butt, 2003; Joyce, McNeil, & Stoelwinder, 2006).

## **2.3 Workforce Scenarios in New Zealand and Australia and Selected Countries: An Analysis using the Needs/Utilisation-based and Bench-marking Approaches**

The discussion of the workforce scenarios will begin with the New Zealand medical workforce situation in Section A, followed by the one in Australia (Section B). Other competing English-speaking countries which are Canada, the UK and the US will be discussed in brief in Section C, mainly for benchmarking purposes.

## **2.4 Section A: New Zealand Workforce Needs: Discussion of the Literature**

As has been stated earlier, the literature search themes were grouped under the three elements of the basic workforce planning model of the US HHS. The discussion of themes begins with those that fell under the category of supply analysis.

## 2.4.1 Supply analysis.

In the supply analysis major themes were identified and these are grouped under the strands of: the profile of the New Zealand medical workforce; the issue of student places; and utilisation of locums and IMGs.

### *Supply analysis strand 1: The profile of the New Zealand medical workforce.*

Major local and international studies have criticised the New Zealand medical workforce situation mainly in terms of current numbers and future projections (Hunn, Crampton, Foulkes, & Gorman, 2009; Simoens & Hurst, 2006; Zurn & Dumont, 2008). It would be therefore useful to look at the profile of the medical workforce across different dimensions. These aspects will include total numbers (compared with other OECD averages), age, gender, and other measures of composition.

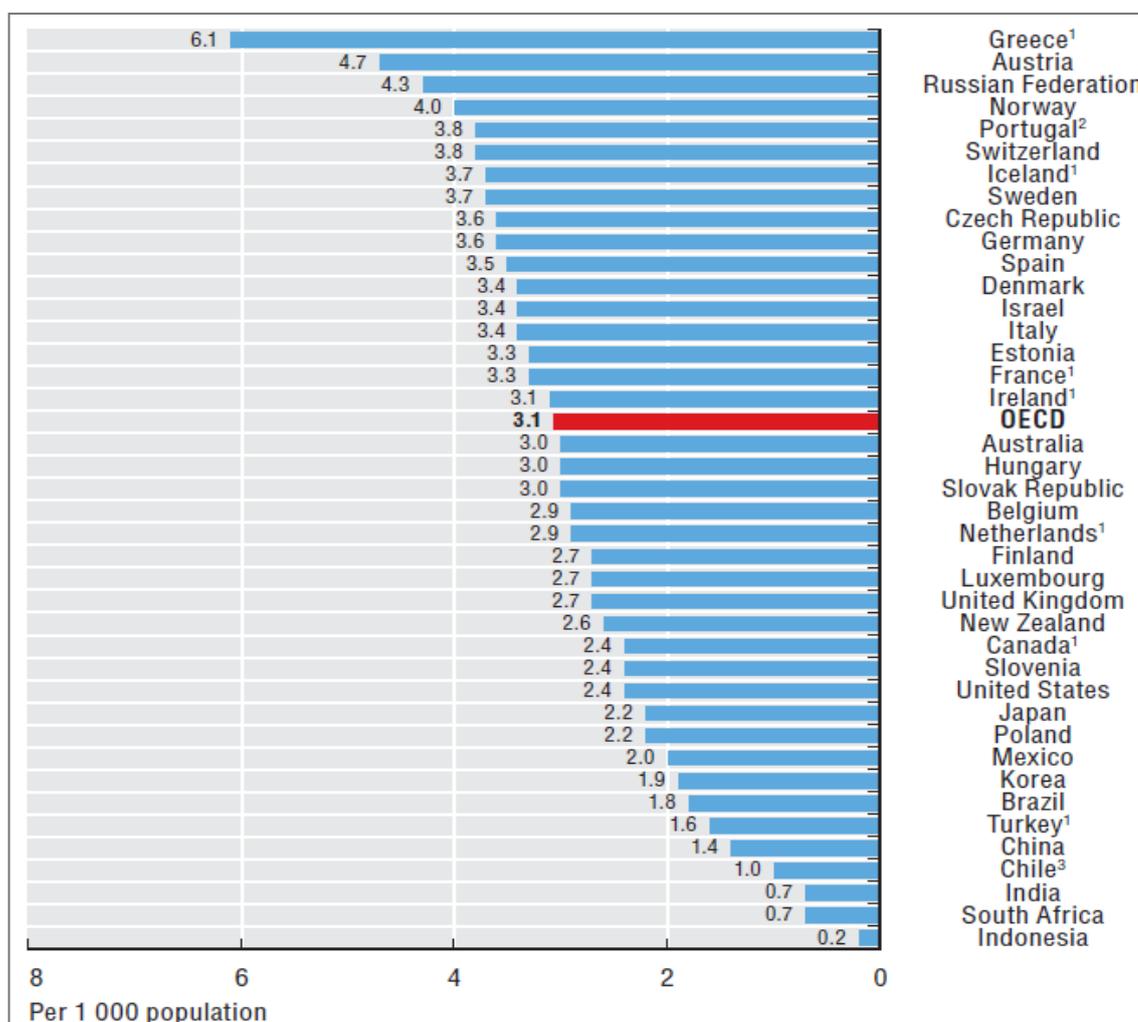


Figure 3. Numbers of medical doctors in OECD countries per 1,000 population, 2011. Adapted from (Organisation for Economic Corporation and Development, 2011).

One important concern in terms of numbers is that since the 1980s the New Zealand's medical practitioner–patient ratio has been below the OECD average of 3.1 per 1000

people (see Table 5). From that time, the gap has never been closed and it seems to be widening. In 2006, New Zealand had a medical practitioner–patient ratio of 2.2 medical practitioners for every 1,000 people compared with an OECD average of 3.1. In terms of other measures, the table below shows that in 2010 there was an estimated number of 13,883 medical practitioners in New Zealand serving a population of 4.3million, making an average of 317 medical practitioners per 100,000 of the population; but this was still below the OECD average (Marett, 2011).

Table 5  
*Statistics of the Medical Workforce in New Zealand*

<b>Aspect of the medical workforce profile</b>	<b>Year Measured</b>			
	<b>2005</b>	<b>2007</b>	<b>2009</b>	<b>2010</b>
Number of registered active doctors	11,578	12,643	13,408	13,883
Proportion of International Medical Graduates (%)	37.5	38.4	40.6	41.1
Number of practising medical specialists	3,451	3,757	4,060	4,262

*Note.* Adapted from Marrett (2011).

Further analysis examines the distribution of specialists per 100,000 of the population. The specialist workforce is important in New Zealand mainly due to the current policy (Ministry of Health, 2009; Ryall, 2008) of the New Zealand government seeking to reduce the amount of waiting time for specialist procedures. Other needs include the fact that surgical output requirements have long been projected to grow by approximately 51% from 2001 to 2026 mainly for elective surgery, and grow by 77% to address real elective surgery need (Ryall, 2008). Apart from that aspect, the specialist workforce, in addition to clinical work, is involved in health delivery in various ways, such as the mentoring of the junior workforce and medical research activities. While the 2007 OECD average is estimated to be 180 specialists per 100,000 of the population, in New Zealand the average proportion of specialists is just under 100 specialists per 100,000 of the population and reports (Zurn & Dumont, 2008) have indicated that it is one of the lowest number of specialists per head of population OECD countries. Additionally, when one looks at the proportion of specialists per thousand, it raises the question of which specialists are underrepresented and also highlights country-wide distribution versus distribution per District Health Board (DHB).

As for the junior medical staff, the 2008 figures provided by the Commission on the Registered Medical Officer (RMO) workforce indicated that almost two-thirds (65%) of the RMO workforce in 2008 were registrars and nearly over a third were house officers. In terms of employment in the public sector, RMOs make up only 5% of a DHB's workforce. This small number has implications for the workloads of the senior medical staff. In terms of age, it has been found that RMOs tend to be young, with 75% of them falling below the age of 35 (Hunn et al., 2009). While this is a positive image when thinking about the large number that will potentially replenish the retiring workforce, there are negative factors to consider, such as the young medical workforce's higher propensity to migrate. The other factor to be cautious about in this situation is the preference of young workers for a balance of work and social life.

Another level of investigation in the supply analysis strand entails looking at the overall age of the New Zealand Medical workforce. It has been found that the medical workforce is gradually getting older judging by the average age of medical practitioners; 45 years in 2010 compared to 42 years in 2000 (Marett, 2011). The consistency of this trend is seen by further examining the 2008 figures for the 45–49 year age group which makes up 17% of the medical workforce, compared to 13% in 2000. The age structure of the medical workforce indicates that there will be a relatively large portion retiring in the near future.

In the supply analysis strand it is also important to consider gender composition. In 2008, men made up 51% of the RMO workforce while women made up 49%. This is a crucial factor in workforce supply as gender composition has implications for the number of hours worked. According to the Medical Council of New Zealand, women tend to work fewer hours than men. The 2005 figures show that women tend to work 41 hours, compared with men who work an average of 47 hours per week (Medical Council of New Zealand, 2012). These figures are of paramount importance when considering that New Zealand already has shortages of medical practitioners. The feminisation of the workforce is however not only peculiar to New Zealand but prevalent in other English-speaking developed countries. For example, in the period around the year 2000, the medical schools' enrolment in English-speaking developed world countries had women exceeding men by just above two percent; that is, almost at a 50:50 ratio (Yelland & Yelland, 2001). In New Zealand in 2002 it was observed that woman represented approximately 37% of the medical practitioner workforce, while in 1980 it was only 16.4% (Health Workforce Advisory Committee, 2002). In OECD

countries between 1990 and 2005 the proportion of female medical practitioners grew from 29% to 38%, which represents growth of more than a quarter (Connell, 2010). With the rise in female empowerment movements, it would not be surprising that this rate will continue to increase. Such a considerable growth in two decades is consistent with the rise of feminist and equality movements. The other challenges noted about feminisation of the medical workforce include the fact that female medical practitioners tend to take leave of absence more than their male counterparts. Realistically, this scenario is going to remain, as any deliberate effort to keep women out of medicine will not only be contrary to modern movements towards gender equality but also unethical. In this complex scenario, it would be useful for the affected countries such as New Zealand to find strategies to capitalise on a feminised workforce. Examples of capitalising on a feminised medical workforce include accommodating women's preference for primary care. As has been noted, aiming for the right specialty mix is another strategy proven to contribute to adequate medical practitioner supply. Another positive approach is to include women's tendency towards holistic care in their practice and not just biomedical care (Brooks et al., 2003). Hence such knowledge is important in terms of where women are deployed.

A review of the effect of gender on speciality choice in Britain noted that a positive aspect of feminisation is that women have a tendency to choose general practice and tend to be willing to work in under-served communities. However, it has recently been observed (Callister et al., 2008) that the preferences for under-served communities by women is a complex predictor dependant on whether women are married/partnered or not and the nature of their spouses or partners. Furthermore, there is Australian and Canadian evidence that women's participation tends towards a preference for primary health care. However, a negative aspect of this is that women are less likely to work in remote and rural areas. A potential implication surrounding this discussion is that the emigration of medical practitioners to Australia may also compound and even divert workforce planning efforts for dealing with feminisation.

Another issue in the supply element identified in the literature is that of the ethnic composition of the medical workforce. One study (Callister et al., 2008) warned of the shortage of young European male medical practitioners entering medicine in New Zealand. The study observed that from the year 2000 to the year 2007, there has been a 3% decline in the number of young white males entering medicine (Callister et al., 2008). However, this warning is based on the current scenario where the European

population is most prominent in New Zealand and did not factor in the projections in population composition indicating that Asians will dominate in the next 20 years (Statistics New Zealand, 2010a).

In the issue of balancing the composition of the medical workforce, New Zealand presents itself as a unique case because of its bicultural environment founded in the Treaty of Waitangi. This treaty obliges the New Zealand government to meet the needs of Māori indigenous people. Under the Treaty of Waitangi clauses, New Zealand policy makers have an obligation to ensure that the Māori communities are adequately represented in the medical workforce. The Treaty of Waitangi is a New Zealand document which has guidelines for the design of both the social and economic policies of the country (Wepa, 2005). The specific guidelines relevant to this discussion pertain to rights of Māori with regards to access and participation in health services. The emphasis is on facilitating the same access and opportunities for Māori as there are for their European counterparts (Durie, 1994). However, as things stand, in terms of workforce composition, in 2003 the Māori medical practitioner workforce was 2.7%. In New Zealand the Māori population accounts for 15% of the population. Furthermore, a 2009 study (Poole, Moriarty, Wearn, Wilkinson, & Weller, 2009) indicated that 3% of medical practitioners identify as Māori and 1.8% identify as Pasifika compared to population ratios of 15% and 7% respectively. In New Zealand, the Pasifika people are some of the minority communities that are usually targeted in most health workforce initiatives, as most lifestyle diseases tend to disproportionately affect this group (Callister et al., 2008).

The Māori and Pacific Admission Scheme was introduced in New Zealand for the sake of representation of these communities. This move was consistent with claims in the literature (Easterbrook et al., 1999) that this is also a way of addressing medical workforce shortages in underserved communities. The discussion of representation of minority communities raises questions of whether dealing with the emigration of medical practitioners to Australia will divert the issues of planning for diversity.

Callister, Badkar, and Didham (2009) have proposed an emerging issue in profiling the supply of medical practitioners in New Zealand: that of the choices medical practitioners are making in living arrangements. This issue needs to be taken into account when considering both national and international recruitment of medical staff as it has been found that there are patterns in living arrangements of medical practitioners.

For example, it has been found that their partners tend to be well-educated and employed which affects their location decisions. It has also been found that well-qualified couples where one or both are medical practitioners they have a greater propensity to live in main urban areas as opposed to remote locations (Callister et al., 2009). In this area, however, there are still some gaps in the literature as no other known study has researched the professions and education level of the spouses or partners of medical practitioners.

### ***Supply analysis strand 2: Retention.***

This section of the supply analysis forms the core of the objectives of this research: migration of medical practitioners from New Zealand to Australia. Different figures have generally been quoted by various sources when referring to this migration. Therefore, it is important to define how different sources arrive at their figures. For example, most of the figures from registration authorities tend to rely on registration data. Thus, medical practitioners who move to Australia without becoming registered in this destination may be excluded. Another issue is that sometimes sources tend to quote data based on country of birth rather than the country where a medical practitioner last practised. Therefore international medical graduates (IMGs) are not captured. In addition to the above, the immigration data tends to be dependent on arrival and departure cards which may not be accurately completed. Lastly, sometimes registration boards and government agencies quote country of birth rather than country of origin.

While Australia is a major destination for New Zealand medical practitioners, the opposite is not true. For example in the 2001 census, the number of New Zealand-born medical practitioners was approximately 1,086, while their Australian-born counterparts in New Zealand only accounted for 180. Put in another way, while in the same year nearly 60% of New Zealand-born medical practitioners living overseas were in Australia, only approximately 9% of Australian-born medical practitioners were living in New Zealand (Zurn & Dumont, 2008). The numbers in both directions were reduced by the fact that the statistics quoted country of birth rather than previous country of residence. This is true especially of New Zealand as it has been noted that IMGs of this country tend to be mobile.

Data quoting permanent and long-term movements and settler arrivals indicate that the number of medical practitioners leaving New Zealand for Australia was 182 in 1998 and this number rose to 681 in 2001. A year later, these numbers fluctuated between

290 medical practitioners in 2002 and 279 in 2006 (Zurn & Dumont, 2008).

New Zealand annually registers over 1,200 IMGs per year, but two-thirds will have left within two years (Medical Council of New Zealand, 2012; Medical Deans of Australia and New Zealand, 2013). Among the OECD countries, New Zealand has the second highest emigration rate of medical practitioners (Zurn & Dumont, 2008).

Another way of looking at retention is by analysing calculations of percentages of graduates retained per year by postgraduate year. For example, Table 6 shows that between the years 1992–2010 retention rates improved by approximately 3%, with almost 100% of graduates being retained after the first postgraduate year. However this cannot be attributed to efforts of retention but rather the necessity of being attached for postgraduate studies. Another point to be noted from the same table is that from the first year of graduation, retention rates start to decline gradually. From the tenth year there are significant declines in retention rates, with between 23% and 44% of graduates being lost. However, these figures from the MCNZ have no accompanying explanation of where these graduates go. This data can be triangulated with other estimates that indicate half of New Zealand’s registrars training to be specialists leave New Zealand in their final year. These graduates leave to take up their first specialist positions, mainly within Australia and primarily for better salaries and conditions (Association of Salaried Medical Specialists, 2010).

Table 6  
*Percentage of Graduates Retained by Postgraduate Year*

Final class year	Size of class	Number registered	Percentage of registered graduates retained, by postgraduate year															
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1995	275	258	96	84	74	76	80	74	72	69	65	66	67	67	69	68	67	67
1996	275	264	97	88	78	80	78	77	75	69	64	64	61	64	66	67	67	
1997	284	266	97	86	73	68	72	72	70	68	64	65	61	63	62	64		
1998	288	251	96	80	69	77	77	73	70	66	61	61	59	58	60			
1999	305	270	99	79	75	77	77	72	70	67	59	56	58	60				
2000	323	286	94	82	74	77	78	79	76	74	67	60	59					
2001	297	271	95	79	78	81	80	78	74	72	65	63						
2002	308	285	94	81	76	79	82	78	76	72	71							
2003	329	302	94	81	80	78	79	75	74	71								
2004	342	284	101	87	85	88	85	81	79									
2005	318	297	100	84	77	78	77	74										
2006	322	287	99	89	85	80	80											
2007	323	284	96	83	79	77												
2008	356	308	102	93	88													
2009	389	337	100	92														
2010	382	317	100															

NZ concern about high attrition in year 10-16

Note. Adapted from the Medical Council of New Zealand (2012)[My highlighting].

One of the most cited reasons for lower retention rates in New Zealand is that medical practitioners emigrate mainly to Australia. The reason for this is attributed to offers of comparatively higher salaries and better working conditions than New Zealand (Association of Salaried Medical Specialists, 2010). Australian medical practitioners seem to earn higher incomes relative to the New Zealand, as can be seen in Table 7 as compared to Table 8. Although these figures are from reputable sources such as the respective organisation’s collective agreements the reality of what medical practitioners earn can be different in each of these two countries. The salaries can vary in accordance with area of deployment, hours worked and experience. For example, while Table 8 shows that in Australia medical practitioners earn between 59,000 and 200,000. However, it is also reported the average annual income of a full-time Australian rural general practitioner (GP) is \$300,000, ranging from \$270,000 to \$450,000 (NSW Rural Doctors Network, 2011b). On the other hand their counterparts in New Zealand earn between 60,000 and 200,000 (ENZ, 2012). Evidence from documents compiled in UK as shown in Appendix N also shows that Australian medical practitioners earn a relatively higher salary (Review Body on Doctors’ and Dentists’ Remuneration, 2012).

Table 7  
*New Zealand Medical Practitioners’ Base Salary Range in NZ Dollars As at 1 June 2013*

Lowest base scale	Highest base scale
69,869	206,000

*Note.* Adapted from (National DHB Collective Agreement, 2013) and (District Health Boards New Zealand Resident Doctors’ Association Collective Agreement, 2012)

Australian medical practitioners also enjoy the benefits of superannuation and salary sacrifice. Salary sacrifice is a tax-minimisation system in Australia where all public hospital employees can access up to the first 30% of their income as tax-free through salary packaging, the remaining 70% will be taxable. The basis of this is that hospital employees are exempt from ‘Fringe Benefits Tax’; a tax on all rewards given to employees other than cash (e.g., a company cell phone or car). In practice, Australian medical practitioners designate a proportion of their income and set it aside for expenses such as mortgage, petrol expenses, computers, and holiday travel.

Table 8  
*Medical Practitioners' Base Salary Range in Northern Territory, Australia*

Lowest base salary	Highest base salary
59,754	201,360

*Note.* Adapted from (Medical Officers Northern Territory Public Sector Enterprise Agreement, 2012)

Such salary differences discussed above have prompted calls for increases in salaries and better working conditions in New Zealand. However, these calls are usually mainly from medical practitioner associations. From the perspective of government and other key workforce employer stakeholders, measures targeting remuneration are not the only answer (Gorman, 2011).

The current New Zealand government introduced such measures as tax cuts, although it can be argued that these had little direct impact on individuals. The reason for this result is that the measures were mainly introduced as an economic package to encourage growth and investment. This can be partly evidenced by the fact that even after these incentives were introduced at the time of the ruling of the National Party<sup>2</sup> government, the country's net loss of people to Australia for the period up to mid 2011 averaged approximately 25,000 a year (New Zealand Herald, 2011b). Despite the fact that newspaper article figures of the trans-Tasman exodus have tended to capture low-skilled and semi-skilled workers than among professional people (Collins, 2010), emigration of medical practitioners has also been seen to be an issue. In the medical workforce it must be noted that one of the major campaign initiatives of the National Party government has been improving retention. Indeed the newspapers have indicated that if anything, in respect of trans-Tasman migration, the National government has achieved something by retaining medical practitioners. A New Zealand Health Minister of the ruling National government once indicated that his government had achieved an increase of 14% of the number of fulltime equivalent (FTE) medical practitioners at District Health Boards (DHBs) and the growth in numbers went up to 6,752 as of April 2011. These figures were however disputed by medical practitioners' organisations on the grounds of not tallying with headcounts (Johnston, 2011).

In spite of the reported improvements in numbers, in February 2011 there were reports of cancer patients being denied chemotherapy in the lower North Island. Around the same time, another regional cancer treatment centre in the Palmerston North region was

<sup>2</sup> One of the political parties in New Zealand.

reported as having failed to administer cancer treatments due to shortages of oncologists (Donnell, 2011). Also, at one point of time in February 2011 in New Zealand there was a report of an oncologist vacancy that was advertised but remained unfilled for a year. This was not in an isolated DHB but in the capital of Wellington. At a national level there were also indications that the average vacancy rate for specialists' jobs in DHBs was 10% (Donnell, 2011).

While it is acknowledged that there are advantages in measures aimed at remuneration, improving conditions too is necessary for increasing productivity levels in addition to retention. These are important as increasing activity levels of medical practitioners is another strategy that contributes to efforts of meeting medical workforce adequacy. A motivated workforce will normally be productive thus providing better health outcomes for the nation (Simoens & Hurst, 2006). However, it may be practically demanding for New Zealand to compete with Australia in terms of salaries as this may involve fiscal policies that have negative implications for the economy. This is another part of the scenario in Australia and New Zealand competition that presents challenges.

Working conditions and remuneration policies should be implemented in conjunction with other policies and not in isolation. However in New Zealand, it has been observed that working hours have decreased since 2001. Nevertheless, this does not seem to be having a noticeable impact on retention. In addition, it is noteworthy that this improvement is still not comparable to the levels of Australia which offer the advantage of varying conditions state by state.

As has been discussed, most losses tend to happen through emigration. Consequently, it is sensible that in addition to targeting retention, it is important to develop more policies that target those medical practitioners who have left the country. Hence, this means that there could be more New Zealand medical practitioners active outside the country not contributing to the medical field residing than in New Zealand. New Zealand is therefore actively trying to attract back the medical practitioners who have already left the country. For example, currently there is a policy aimed at reducing tax and some forms of immunities for those who have been out of the country longer (Kea Zealand, 2012). Additionally, New Zealand is offering to address their professional development needs (Gorman & Brooks, 2009). This strategy is economically viable as it encourages gains from losses that happened when these medical practitioners left the country.

Nevertheless, it may be too early to comment on the impacts of these strategies as no studies have been carried out to evaluate these.

Other strategies that New Zealand is implementing acknowledge that globalisation and international competition is a reality. These are strategies that are ‘migration friendly’ such as establishing opportunities for shared learning as bilateral or multi-lateral agreements. An example of this is harmonisation of registration between countries such as those between New Zealand and Australia. These two countries either share or have separate colleges but have recognition of qualifications. Members can work in both countries on application (Mpofu & Hocking, 2013). Such strategies have been seen to be effective in other English-speaking Western countries such as the UK, where the international fellowship programme which was adopted in 2002 has been evaluated to be achieving positive returns (NHS Employers, 2012; Review Body on Doctors’ and Dentists’ Remuneration, 2012).

Age issues are also considered in the rubric of improving working conditions, such as in relation to young people’s preference for travelling overseas, and balancing work and private life. Lifestyle and work and life balance have mainly been met by improving working hours. Another very recent measure that acknowledges both lifestyle preferences and globalisation as a reality is the new proposed policy of sponsoring medical graduates after completing their internship to go and work overseas (Radio New Zealand, 2010). In addition to making the sponsored medical practitioner feel honoured to be sponsored to travel, the policy also encourages patriotism which may have long term effects on influences to remain in New Zealand. Policies such as these may prove to be effective with these benefits.

### ***Supply analysis strand 3: Immigrant medical practitioners.***

While considering the losses in terms of emigrating medical practitioners, at the same time it must be noted that New Zealand presents itself with a lot of opportunity gains by immigration. One contributor to the gains is the status of New Zealand as a signatory to the UN Refugee Convention. Hence New Zealand tends to receive refugee medical practitioners under the humanitarian immigration category. However, New Zealand has not been aggressive in capitalising on this opportunity as most of these medical practitioners, much needed in their countries, find themselves doing menial jobs (Mpofu & Hocking, 2013). This opportunity could be taken advantage of by policy makers as it makes economic sense. Up-skilling an immigrant medical practitioner tends to be

quicker and cheaper than training a new undergraduate medical student. Some of the immigrating medical practitioners fail to register as a result of strict and unsupportive conditions (Review of the Health Practitioners Competence Act 2003, 2009). Moreover, it has been found that of the immigrants who do register, fewer than 50% remain in New Zealand after the first year of registration and this figure further drops to 33% by the third year after registration (Commission on the Resident Medical Officer Workforce, 2009).

Further, in terms of opportunities arising from immigration, New Zealand has an economy that relies on immigration. However, it can be criticised for having an overreliance on foreign trained medical practitioners. According to Zurn and Dummont (2008), New Zealand is a very open market with immigration driving most of its economic sectors. Hence this applies to policies that are designed deliberately to attract immigrant medical practitioners. These permissive policies have in the past resulted in increased short-term migration among the medical workforce. For example, according to the HWAC (2005), medical practitioners who registered under the immigration-related temporary scope of practice rose from 165 in 1990 to 758 in 2005. Most of these medical practitioners helped in servicing the areas with shortages, which tend to be the remote and rural ones. Similar opportunities from immigration have also been utilised in Australia to service areas of need (Department of Health and Ageing, 2012, 2013). Although the medical practitioners who enter under this category have limitations in terms of geographical, time and practice scope they have helped in servicing remote and rural areas in Australia (Department of Health and Ageing, 2013).

In capitalising on immigration, New Zealand draws labour from small Pacific Island states. However, the reasons for workers from these states migrating to New Zealand are slightly different from other migrants moving to New Zealand. For example, these smaller Pacific Island countries look to both New Zealand and Australia for upward social mobility. Self-actualisation and education in these countries is associated with affluence attained by travelling and working abroad (Negin, 2008). Emigration to New Zealand from these countries has a positive effect in that there are benefits associated with the skills gained if these health professionals return to their countries. In cases where there is no return migration, such moves will be unethical as these smaller island economies have a higher need for health professionals. This is evidenced by the fact that these countries sometimes rely on the New Zealand (and Australian) system for referral services. Hence, although New Zealand is losing to better economies than itself,

it would appear highly unethical for New Zealand to deliberately poach from smaller economies of Pacific Island states.

A study by Negin (2008), using the Australian and New Zealand 2006 census data to examine the number of Pacific Island born health professionals living in Australia and New Zealand, condemned these countries for contributing to the brain drain in the Pacific countries. However, as Table 9 shows the numbers are insignificant. The numbers are only higher for Papua New Guinea (PNG) and Fiji.

Table 9

*Number of Doctors Registered by the Medical Council of New Zealand from Pacific Island Countries*

Country of training	Year									Total
	2004	2005	2006	2007	2008	2009	2010	2011	2012	
Cook Islands	0	0	1	0	0	0	0	0	0	1
Fiji	9	2	7	3	1	4	7	13	10	56
Papua New Guinea	2	1	0	0	0	0	1	0	0	4
Samoa	0	0	0	0	0	0	0	1	0	1

*Source:* Medical Council of New Zealand (2010).

Negin (2008) may have included people who were born in Pacific Islands but trained in New Zealand. The above data may therefore not be enough to validate claims that New Zealand poaches from smaller Pacific Island states.

#### ***Supply analysis strand 4: Locums.***

One question of special significance that needs to be answered is how does New Zealand cope with the shortages in the medical workforce. Two notable ways of coping with these shortages is the over-reliance on locums and use of immigrant medical practitioners. These two measures may be unsustainable for a health system as workforce planning attempts are usually balanced with national fiscal policies of sustainability. As for the issue of relying on locums, even though it is a coping measure, this scenario has created further problems. As locums are offered better financial rewards and have more flexibility in comparison to permanent hospital positions, medical practitioners have therefore tended to prefer locum positions (Commission on the Resident Medical Officer Workforce, 2009). However, relying on locums can be costly and therefore unsustainable in the longer term. Locums also pose an issue of unpredictability of workforce patterns as they are more mobile than permanent staff.

This makes the workforce more volatile. Such fluidity of the medical workforce makes supply and demand trends unpredictable and is thus a hindrance to workforce planning, modelling and forecasting. In addition, from a health and safety perspective, locum reliance could be seen as compromising safety to the medical practitioner and the patients as the number of hours they work tend not to be monitored (Gorman et al., 2009; Henning, Hawken, & Hill, 2009). One report (Commission on the Resident Medical Officer Workforce, 2009) indicated that while costly and unsustainable, reliance on locums will not be stopped in the near future. Efforts to make permanent employment more attractive than locum work are therefore recommended.

Furthermore, New Zealand's reliance on immigrants to sustain the workforce comes under criticism as internationally it has been found that immigrants are a highly mobile workforce. Key findings from the survey by Morton et al. (2008) reported that among immigrants there are a high number of UK-trained medical practitioners who tend to work in the DHB for a relatively short period of time (11 months on average) and leave.

#### ***Supply analysis strand 5: Student places.***

One of the significant moments in the history of medical personnel intakes was a decision made in 1982 to cut the numbers of funded students per year by over fifty students. This decision was followed by a non-response to calls for increases, leaving the numbers fixed at 285 funded places for the next 22 years until 2004 when they were increased to 325. In 2007 this figure was increased to 365 per year (Birrell, 2011; Cook, 2009; Gorman et al., 2009). Of much importance when discussing these increases, is that such measures are not an immediate answer for achieving adequacy in the workforce. This is because of the lead time in training; for example it takes 12-15 years to qualify as a specialist.

Lobbying for more places in medical practitioner undergraduate training has included the now disbanded Medical Training Board (MTB) which once recommended a further increase of 100 places a year by 2012. The current government did respond, setting a target of boosting the numbers of funded medical places in universities by 200 from 365 students in 2008 to 565 by the year 2013 (Commission on the Resident Medical Officer Workforce, 2009; Ryall, 2008). The issue of residency positions is still debated in New Zealand. Currently, the Clinical Training Agency funds 104 general practitioner registrar training places. The Government has made a commitment to increase general practitioner registrar training places to 154. There are a variety of issues that may result

from such lobbying. For example, increases in medical places may result in demand for residency training positions. Addressing this requires a versatile and responsive workforce planning strategy backed by a related responsive political arm. At present, there is no evidence of preparedness for such a strategy and New Zealand has often been criticised for its disintegrated workforce planning system (Cook, 2009). While in the near future changes could be expected in the junior workforce, shortages in the senior medical workforce may also need attention.

An OECD working paper publication once prompted New Zealand policy makers to consider self-sufficiency policies (Zurn & Dumont, 2008). To understand the implications of self-sufficiency policies it is important to look at the production of medical graduates in New Zealand. Two medical schools, one at the University of Otago and the other at the University of Auckland, produce medical graduates and the intake of these is capped at 325 per year. The cost of medical training as of 2002 was estimated to be \$199,000 and students contribute about 30% to this figure (Cook, 2009). Although 30% may sound a reasonable contribution, students pay that percentage through student loans. These loans constitute some of the driving force behind the emigration of medical practitioners. Nonetheless, there are some arguments against solely relying on self-sufficiency policies such as undergraduate enrolments. Firstly, as has already been discussed, self-sufficiency does not align with the strategic position of New Zealand as a country whose economy relies on immigration. Secondly, self-reliance measures include increasing the medical education intakes and this has some economic impacts that require complex cabinet debates. In this regard it has been argued that increasing medical school intake should not be viewed as a long term measure to meet physician supply needs, especially because of the time lag between graduation and being fully trained which can be up to 13 years (Spike, 2006). This reason for this, apart from possible drains through outflows, is that by the time the medical practitioners graduate workforce needs and political priorities would have changed.

Further scrutiny of self-sufficiency policies in other English-speaking countries in the developed world reveal that such policies on their own have not provided a solution. For example, in the UK there was a 40 million pound injection to medical workforce self-sufficiency strategies aimed at creating more medical education places in the National Health Service (NHS) over a five-year period. This effort resulted in about 1000 new medical education places and in 10 new medical schools (R. Robinson, 2002). Canada

also did the same over a similar period by injecting CAD\$3 billion for revamping the health system with most of the money going towards the field of medicine (Canadian Institute of Health Research, 2003). In these two countries, there is no clear evidence that these policies exerted an influence over the global migration of medical practitioners or the population structure and chronic disease strains on the medical workforce. Even Australia itself has introduced five medical schools since the year 2000 but complex issues still place demands on the medical workforce (Spike, 2006). It is therefore recommended that against this background of evidence, increases in student numbers should be supplemented with other policies aimed at boosting the numbers in the medical workforce. This could include utilisation of immigrant medical practitioners.

#### *Supply analysis strand 6: Geographical distribution.*

Another important aspect to consider when modelling the workforce, is the geographical distribution. Rural and outer city DHBs tend to have the lowest ratio of medical practitioners per 1,000 of the population. For example, Wairarapa DHB has the lowest ratio of medical practitioners per head of population with 142 medical practitioners per 100,000; followed by Waitemata DHB with 154 and West Coast DHB with 156 medical practitioners per 100,000 of the population. Inner city DHBs tend to have the highest ratio of medical practitioners per 1,000. For example Auckland DHB has the highest ratio of medical practitioners to population with 543 per 100,000. This could be attributed to the fact that Auckland is the centre of business and economic activities in New Zealand. Auckland is also said to be an immigrant city and hence this trend may be expected considering the fact that New Zealand has a higher number of immigrant medical practitioners. According to the Medical Council of New Zealand (2004), in cities, the ratio is 400 medical practitioners per 100,000 while in rural and remote districts the ratio is 40 per 100,000. Although in considering these statistics it must be noted that the presence of highly specialised services in cities and centralisation policies might be contributing to these differences. However, in other countries, decentralisation of some specialist services to small rural territories has been attempted and attitude issues are still a barrier in getting the medical workforce to choose rural areas as places of practice (Chen, Fordyce, Andes, & Hart, 2010; Rabinowitz, Diamond, Markham, & Wortman, 2008). The rationale for this is that big cities tend to be associated with economic and investment opportunities and thus the medical workforce is not immune to the need for affluence and personal advancement. Geographic

distribution of medical practitioners is important in discussing both immigration and emigration as receiving countries usually target rural and remote areas for placement of incoming medical practitioners.

Furthermore, with regard to the adequacy of medical practitioner supply, policy makers need to take into account not only the number of medical practitioners in a country but issues relating to productivity, and also speciality composition. Policies aimed at ensuring the right speciality mix are important in a country like New Zealand where cardiovascular disease, obesity and cancers are priority health issues (Ministry of Health, 2009). Consequently, general practitioners will be of paramount importance in preventive care. Aiming for the right specialty mix, particularly towards having more practitioners with generalist skills, is a step towards ensuring adequate medical practitioner supply (Simoens & Hurst, 2006). One such strategy is to increase the number of generalists in primary care. For example, the tendency is for a correlation between the preference for general practice and rural practice (Poole et al., 2009). New Zealand has a policy, introduced in 2009, where \$30,000 scholarships were offered to medical graduates prepared to work in health boards with shortages and specialising either in general practice, general medicine, general surgery, pathology or psychiatry. However, no known study has been published to evaluate the impact of this policy. Influences of emigration in the New Zealand-to-Australia scenario could therefore be triggering imbalances in speciality mix adequacy in either of these two countries.

#### **2.4.2 Complexities to note about supply analysis**

There are complex factors that can affect the calculation of workforce supply figures such as the tendency of medical practitioners to take temporary leaves of absence, retire or otherwise leave active practice as well as variable productivity or activity levels of medical practitioners. In the UK, with regards to turnover as a contributing factor to medical practitioner shortages, it was found that within five years of qualifying, the attrition rates were 5-9% excluding emigration factors (R. Young & Leese, 1999). Similar studies about turnover after qualifying have not been carried out in New Zealand.

Furthermore, supply analysis can be affected by difficulties in calculating turnover. Turnover data can be complex to capture as there are other dynamics in physician movements which happen internally within a country. These include becoming part of a practice network and a change from individual to group practice. These dynamics are

sometimes necessitated by a medical practitioner's need to change the mode of remuneration or to change type of occupation. Nevertheless, they are still contributing to the medical field. Other dynamics that may occur within the country with practitioners still contributing to the medical field include teaching in a medical school or being an administrator. However, in New Zealand there is a lack of comprehensive data on the spread of these changes or as to the numbers of those who are either inactive or work in other areas of medical practice. Also, not much research has been done about activity level variation by age or gender. However, known studies that have looked at gender issues and productivity levels postulate that generally, in economic terms, the supply of medical services fall if the female medical practitioners increase in number (Cohen, 1999; Woodward & Hurley, 1995).

### **2.4.3 Demand analysis.**

In the demand analysis phase there were themes that were identified in the literature. These were related to health service demands on the future New Zealand medical workforce.

#### ***Demand analysis strand 1: Health service demands on the future New Zealand medical workforce.***

According to Zurn and Dummont (2008), in New Zealand the demand for health services will increase by 40% to 69% between 2001 and 2021. This projection takes into consideration variables such as population growth, morbidity rates and diseases associated with ageing. This prediction can be complemented with further predictions that most western developed countries will spend 20% of their GDP on health by 2020. In New Zealand this expenditure will be a rise from the current 8% of the GDP (Gorman & Brooks, 2009). Such an expansion will put a strain on the workforce, particularly on the medical workforce which is essential to health services delivery, especially in the era of chronic diseases in Western countries (NZIER, 2004).

The demand on the medical workforce can also be examined against current and future standards of care. Current standards of care are evident in the benchmarking of access to care as stipulated in the Primary Health Strategy and other policy documents. The Primary Health Care Strategy requires the provision of healthcare by an adequate health workforce (Ministry of Health, 2001). Other measures of standards of care include the health targets introduced into the health system at the end of the year 2007 (Ministry of Health, 2009). These targets include an undertaking by the government to increase

access to elective surgery (non-urgent surgery), shorter waits for cancer treatment and shorter stays in emergency departments. The shorter waits for cancer treatment stipulate that all patients, ready for treatment, wait less than four weeks for radiotherapy or chemotherapy. The shorter stays target stipulates that 95% of patients will be admitted, discharged, or transferred from an emergency department (ED) within six hours (Ministry of Health, 2009). These targets have implications not only for the requirement of more staff but also the activities of other health professionals. For example, it has implications for the need for diabetes nurses and other health workers to collaborate and work inter-professionally. In spite of this, a report (Gorman et al., 2009) noting evidence from the New Zealand Medical Council figures shows that the productivity of medical practitioners has decreased by 12.5%, equating to 250 retirements, since the health targets were released.

In the demography element of demand analysis ageing and status of the baby boomer generation are also issues to be taken into account. Population growth patterns have an influence, not only on the demand for health services, but also on the demand for certain specialties and their allied health providers. New Zealand's over 65 year old population is projected to grow nearly four times more quickly than the total population over the next 15 years. This is contributing to a rapid rise in health and aged care costs (A. Young, 2012). These projections of the ageing population in New Zealand will place a strain on the demand for the workforce for aged care. The rationale behind this thinking is that groups above the age of 65 are greater consumers of health services. One study by an authoritative statistical consulting firm, NZIER, concluded that that population ageing will increase the demand for health and disability labour by between 2.5 and 4.3 times between 2001 and 2021. In addition it concluded that there will be an excess of labour demand over supply of between 28% and 42% by that period (Commission on Competitive and Sustainable Terms and Conditions of Employment for Senior Medical and Dental Officers Employed by DHBs, 2009; NZIER, 2004).

It was once claimed that under current standards of care, if other factors remain steady, the ageing population is predicted to provide a strain that could be met by an additional 40% to 70% more health workers ten years after 2005 (Schofield & Beard, 2005). Members of the "baby boomer" generation are predicted to largely leave the relevant workforces during that same period (Schofield & Beard, 2005) as a result of retirement.

The above examples of demand factors are not exhaustive as there are many other demand factors that impact the medical workforce. For example, in addition to population characteristics, service use patterns also impact demand. Examples include the greater demand on the maintenance of quality of life when people live longer (Maynard, 2006). Developments in treatment and diagnostic technology may also affect demand, either in efficiency in diagnosis or the need to maintain quality of life after diagnosis of terminal illnesses such as cancer.

#### **2.4.4 Closing the gap.**

With regard to closing the gap between supply and demand themes, three strands were identified. These included medical education related strategies, introducing medical auxiliaries, and strengthening workforce planning strategies. Most of these strategies fall in the scope of the framework of the World Health Organisation (WHO) recommendations for all countries to improve retention in rural areas (Rourke, 2010a, 2010b; World Health Organization, 2010a) which are educational, regulatory, financial and personal and professional support recommendations. The discussion below will begin with medical education strategies.

##### ***Closing the gap strand 1: Medical education-related strategies.***

One way of closing the gap that has been researched and implemented in New Zealand to achieve retention is medical education-related strategies. They are mainly admission and curriculum characteristics of medical schools. These involve strengthening the link between medical education and workforce planning. In this regard, selection of medical students is usually done to recruit students with characteristics that are associated with either retention or meeting the areas of shortage. Admission policies and curriculum characteristics will therefore be discussed. Literature evidence indicates that common features include selective admission, curricular focus on primary care/family medicine, community-based teaching, and community/rural preceptorship (Rabinowitz, 1988). Interest in general practice is also a factor, for example, medical students of rural origin with an initial interest in a generalist career are significantly more likely to enter rural practice. This therefore is important in addressing areas of shortage, especially in rural and remote locations, as well as in specific underrepresented communities. For example, it has been found that only 4.2% of New Zealand-trained GPs' main work location at 17 years of post-graduation was in minor urban, rural, and coastal areas (Gill, Palmer, Mulder, & Wilkinson, 2001b).

Admission policies tend to target the recruitment of students with particular characteristics which are usually biological, social and economically oriented. One such example of a policy that has been implemented internationally is the selective/preferential admission or affirmative action for students of rural origin. Although the definition of rural areas varies from country to country, in New Zealand a rural area is defined as any town with a population of less than 20,000 (Statistics New Zealand, 2012). A key reason for preferential treatment of students from rural backgrounds is because they are more likely to return to environments similar to their own backgrounds to practise. This has often been the case for students of rural background in Australian studies (Rolfe et al., 1995). This strategy has been introduced in several countries including Australia, following consistent results of extensive research demonstrating a strong association between rural background and graduates' choice of rural careers (Easterbrook et al., 1999; Fryer, Stine, Vojir, & Miller, 1997; Kassebaum & Szenas, 1993). In New Zealand, the importance of acknowledging the correlation between rural origin and rural practice (Akl et al., 2008) has been acknowledged by implementing the Rural Origin Medical Preferential Entry pathway, which was established in 2004. Currently, no known study has been implemented to establish the effectiveness of this programme.

Not only is rural origin of medical practitioners associated with rural practice but having a spouse of rural origin has been similarly associated. This association also extends to preferences for careers in primary care (Easterbrook et al., 1999; Fryer et al., 1997; Kassebaum & Szenas, 1993). Whether these characteristics also apply to the predictors of preference to practice in New Zealand rather than emigrate (Poole et al., 2009) is still an area that needs investigation.

In New Zealand, the importance of student characteristics was also mirrored in the location of its two medical schools: Otago and Auckland. The strategic location of these medical schools was intended to help in the diversification of the workforce (Gill, Palmer, Mulder, & Wilkinson, 2001a). However, a study by Fitzjohn, Wilkinson, Gill, and Mulder (2003) found that the demographic characteristics of medical students across the two different medical schools varied significantly. For example, Auckland has a higher number of overseas born students (40%) while at Otago only 9% were born overseas (Poole et al., 2009). This difference could be because Otago is near a rural district and Auckland is an immigrant city. Nevertheless, although Otago University has a higher number of students from rural areas (25%), one study (Gill et al., 2001a,

2001b) found that only 1% of medical students at the Christchurch School of Medicine (which is linked with the Otago Medical School) indicated they would practise rurally. This proves that there are other inherent complex factors in addition to rural origin.

Another important characteristic that is targeted in admission policies is being a student from minority communities. As has been discussed, in New Zealand the minority communities are Māori and Pasifika, which are also overrepresented in negative health outcomes. A US study that utilised registers of generalist practitioners from minority ethnic communities found that there was a relationship between being from an ethnic minority group and preference to serve in these communities (Komaromy et al., 1999). A recent study by the RMO Commission in New Zealand also observed loyalty to ethnic minority communities who spoke the same language. Therefore, it would be worthwhile to capitalise on this group in the development of appropriate strategies (Commission on the Resident Medical Officer Workforce, 2009). Nonetheless, data on the association between loyalty and retention in ethnic minorities is still needed to validate these claims.

Another question to be explored is whether medical student characteristics predict a greater likelihood of practising in rural areas than do curriculum initiatives. According to Rabinowitz (1988), admission policies tend to be more powerful than curriculum characteristics. Poole, Moriarty, Wearn, Wilkinson, and Weller (2009) propose that selection tools should ideally target demographic attributes as these tend to be more effective than trying to change attitudes by medical education. However, some medical education factors, such as community preceptorship, tend to be effective. For example if implemented with a high staff–student ratio, it can be effective in influencing students’ career choices. On the other hand it must be noted that, some studies have argued that undergraduate rural rotations do not necessarily result in rural practice, unless they are at least three months or longer (Pathman, Steiner, Jones, & Konrad, 1999).

Other factors to be considered as part of capitalising on demographic characteristics are complex to incorporate in undergraduate recruitment policies. For example, marital and citizenship status have a range of complexities that influence decision-making.

Recruiting based on these characteristics will conflict with libertarian ethical thinking. In a study on post-graduation migration intentions of students of Lebanese medical schools (Akl et al., 2008), the intention to train abroad was associated with being single. The intention to stay indefinitely abroad was associated with the male gender and

having a second citizenship. Moreover, in regard to marital status, the citizenship status of an individual and their spouse is also a predictor of emigration. For example, a spouse's origin has been seen to be a factor in retaining medical practitioners in practice or in the country of origin (Easterbrook et al., 1999; Rabinowitz, 1988). Specifically with regards to medical practitioners, it has been found that the country of birth of immigrant medical practitioners and country of training of immigrant medical practitioners are predictors of emigration (Akl et al., 2008). Although these influences could be hard to incorporate into admission policies, they can be factored in predicting workforce shortages.

### ***Closing the gap strand 2: Role substitution.***

A claim that New Zealand is actually lagging behind in comprehensive workforce planning strategies will be defended here. For example, one strategy that has been introduced in most developed countries but not extensively in New Zealand is role substitution. Although faced with a threat to medical workforce shortages, New Zealand has not followed the trends in other competing Western English-speaking countries that have trialled the use of medical auxiliaries such as physician assistants (Gorman et al., 2009). Attempts to increase the scope of other health professionals to overlap into medicine (e.g., nurse anaesthetists and nurse endoscopists) are one of the WHO recommended strategies of managing workforce issues (Rourke, 2010a, 2010b) and have worked in other countries. This strategy has been implemented in countries such as Canada, US and the UK (Jolly, 2008; Orcutt, 2007).

It is acknowledged that some efforts are being made in regard to role scope. Currently some new roles are either being negotiated with relevant professional bodies such as the Physician Assistant role and the Clinical Pharmacist Prescribers or being trialled such as the Primary Care Practice Assistant (PCPA) and the Gerontology Nurse Specialist (GNS). Other roles have already been established, such as the Diabetes Nurse Specialist Prescribing role (Health Workforce New Zealand, 2013a).

Notably, while these initiatives are still in their infancy stages in New Zealand, they have been in place in other developed world English-speaking countries benchmarked with New Zealand such as Canada, the UK Australia and the US. For example, in the case of the role of a Physician Assistant (PA); in Australia this has already been established with PA training courses are in place. Scholars have noted that in the US this role has existed for more than 40 years while in the UK it has existed for nearly 10

years (Head, Trim, & Walker, 2012; Hsueh, Wilkinson, & Bills, 2004; S. Miller, 2012). The development of the PA role is consistent with the need to reduce costs. The other advantage is that training can be more specific to local health system needs because this innovation is usually under thorough scrutiny especially from competing registration boards. However, in the long run, the issue of reducing portability to other countries is questionable, especially in the context of Australia as a neighbour where there is mutual recognition of most qualifications. It is noted that at the time of this writing the PA role had been trialled in one site in New Zealand and the programme was being evaluated. However, as expected this has been accompanied by challenges from the medical and other related professional bodies such as nursing. Registration for such professional is usually monopolised by medical practitioners as a group, as they hold power over the market as a profession.

### *Closing the gap strand 3: Policies.*

Another aspect of closing the gap is workforce development policy. An element of workforce development policy that has been tackled by different governments in New Zealand and investigated by others is that of student debt. For example, a study was undertaken to assess the effects of student debt on the intentions of first-year house officers in relation to location of practice and vocation, and to evaluate the relative importance of incentives to remain practising in New Zealand (Moore, Gale, Dew, & Simmers, 2006). The study found that 55% of respondents had considered leaving the country, specifically because of the student loan debt. This survey of 296 New Zealand-graduate first-year house officers practicing in New Zealand indicated that 65% of respondents intended to leave New Zealand within three years of graduating and 55% of respondents had considered leaving the country, specifically because of the student loan debt. Forty-three percent of respondents stated that their student debt had influenced their intended specialty, employer contributions towards student loans, and training opportunities within New Zealand (Moore et al., 2006).

In New Zealand currently there is a voluntary bonding scheme which is an incentive-based payment scheme available to some medical practitioners and some health professionals. These scheme participants who agree to work in hard-to-staff communities and/or specialties remain in New Zealand after their university studies. Medical practitioners are required to work in one of the hard-to-staff communities for up to two years. They are then accepted on (and be completing) a vocational training programme for one of the hard-to-staff specialties (see Table 10) for the remainder of

the three to five year bonding period (Health Workforce New Zealand, 2013c). Medical practitioners eligible for this scheme are only those listed in Table 12. For medical practitioners, the eligible hard-to-staff communities on the voluntary bonding scheme include Northland DHB, Lakes DHB, Tairāwhiti DHB, Whanganui DHB, Wairarapa DB, West Coast DHB, South Canterbury DHB and Taranaki DHB. A map of the location of these DHBs is shown in Appendix I.

Table 10  
*List of Hard to Staff Specialities*

---

**List of the hard-to-staff specialities on the voluntary bonding scheme**

---

- General Practice
  - General Surgery
  - Internal Medicine
  - Psychiatry
  - Pathology
  - Rural Hospital Medicine
- 

*Source:* Health Workforce New Zealand (2013c).

In Australia there is also a similar scheme. It is called the Medical Rural Bonded Scholarship (MRBS) Scheme. Students accepting the MRBS commit to working in a rural or remote area of Australia for six continuous years, less any credit obtained through other imposed condition after completing their medical training as a specialist. The attractiveness of this \$25,000 a year medical education scholarship is that it is currently tax free (Department of Health and Ageing, 2013). One therefore wonders whether the New Zealand government could capitalise on making the student loan policies even more attractive. However, currently there has not been an independent evaluation of student loan policies in New Zealand although, as has been noted before such financial incentives are also an endeavour which falls under the WHO framework of recommendations for improving retention of medical practitioners especially in rural areas (World Health Organization, 2010a).

***Strand 4: Workforce planning strategy.***

One of the important features of closing the gap in workforce planning is the workforce strategy itself. The New Zealand workforce planning scenario has been criticised for its lack of co-ordination as well as its duplication of services by different agencies (Cook, 2009). Workforce planning efforts are only effective if they are integrated which

explains why New Zealand’s workforce planning efforts have been criticised for their lack co-ordination (Goldsand & Frechette, 2001).

Lack of integration in workforce planning strategy mainly occurred as a result of the market-oriented approach of the 1990s health reforms which led to the decline in health workforce planning efforts (Zurn & Dumont, 2008). The market-oriented approach was associated with the decentralisation of services to local regions as well as the appointment of government agencies with special interests and specific tasks in workforce planning.

Table 11  
*Workforce Planning Approaches*

<b>Period</b>	<b>Workforce strategy</b>	<b>Main characteristics</b>
Pre-1990s	Centrally co-ordinated health workforce planning	Lack of consultation Nationally coordinated
1990s	Market-oriented approach adopted	Decentralisation Fragmentation Duplication of services

As an unintended consequence, the market-oriented approach ended up being characterised by a lack of communication and lack of co-operation between workforce experts. These workforce stakeholders included the politicians, the 21 DHBs, and government agencies such as the Tertiary Education Commission (TEC), the Medical Training Board (MTB) (now disbanded) and an independent agency called The Clinical Training Agency (CTA) (now under Health Workforce NZ, HWNZ, and known as Investment Relationships and Purchasing) (Cook, 2009; Gorman et al., 2009). It is important to examine these in retrospect as they influenced current workforce issues. The politicians’ roles have mainly involved deciding on the number of medical student places as part of the health workforce strategy adopted by each political party. The TEC has been responsible for managing the Government’s annual funding for supporting tertiary education. This encompasses all forms of post-secondary school education and training, including undergraduate medical education. Initially the MTB was an agency of the Ministry of Health and the TEC was tasked with oversight of the supply and demand of the medical workforce in New Zealand through coordinating medical education and training needs. The Clinical Training Agency’s (CTA) task was mainly to oversee the funding of intern and postgraduate training places. However, because of duplication of duties and lack of coordination, these two agencies were then merged and a new CTA with new members was then appointed. The role of the then CTA was

therefore to unify workforce planning in New Zealand and ensure coordination of workforce training, planning and funding for our nurses, medical practitioners and other health professionals (Cook, 2009; Gorman et al., 2009).

Table 12

*Parallel Work Streams all Focusing on the Medical Workforce*

<b>Work stream</b>	<b>Focus on the workforce</b>
Director-General of Health's Commission of the Resident Medical Officer Workforce	Junior medical workforce
Director-General of Health's Commission on Competitive and Sustainable Terms and Conditions of Employment for Senior Medical and Dental Officers Employed by District Health Boards	Senior Medical workforce
Ministry of Health Long-Term System Framework	General medical workforce
District Health Boards New Zealand Future Workforce	Medical practitioners in public employment
Medical Training Board Reports	Supply and demand of medical practitioners

*Source:* Adapted from Cook (2009).

At one point in time it was noted that there were nearly ten work streams working at the same time on medical workforce issues. Apart from being confusing, too many streams working on the health workforce can be too expensive (Cook, 2009).

It must be noted that currently that the ruling National Party government has been engaged in reforms such as reducing bureaucracy by regionalising and nationalising government agencies. This raises hope that the national oversight and co-ordination of the medical workforce strategy is taking a new direction. Currently the MTB and the CTA have both been disbanded and rebranded respectively and their functions have been taken over by an organisation called Health Workforce New Zealand (HWNZ). This organisation now combines the workforce development functions formerly undertaken by the Ministry of Health and the Clinical Training Agency (now known as Investment Relationships and Purchasing) (Health Workforce New Zealand, 2013b). Given this new direction it is argued here that this is a first step in revolutionising the workforce planning strategy providing a positive outlook for workforce planning.

#### **2.4.5 Summary.**

Most strategies implemented by New Zealand have tended to mirror some of those undertaken in other English-speaking developed world countries faced by the same issues. However, given that New Zealand is potentially losing in this competitive

environment, it could be expected to adopt more comprehensive strategies than these. In addition, although the discussion above centred on most workforce supply issues in New Zealand it must be noted that such issues also overlap with Australia and beyond to other English-speaking developed countries but on a different scale. Most of the issues that can potentially make New Zealand the net loser are based on its isolated geographical position. However, some issues are related to the relative weaker value of the currency as compared to other English-speaking developed countries. The current context of globalisation and New Zealand's social and geographical position in relation to Australia makes New Zealand's workforce planning initiatives complicated. Such mobility has been observed to have a ripple effect of undermining national workforce planning strategies. Although it is noted that social and political factors in the New Zealand landscape also come into play. The two neighbouring countries need to be cognisant of their role in harmonisation for equity of health in the Tasman region (Smith, 2008).

## **2.5 Section B: The Australian Scene of Medical Workforce Needs**

### **2.5.1 Introduction.**

Understanding Australian responses to medical workforce shortages and supply will help to situate New Zealand in the two countries' competitive environment and also will be useful for benchmarking purposes. There are three major things to note about these two countries. Firstly, like New Zealand, Australia has a high percentage of international medical graduates. Secondly, Australia also faces some shortages in rural and remote areas. Thirdly, Australia also has two similar problems of geographical isolation from Europe and that of a previously devalued currency, which cannot compete against the other three big English-speaking developed countries, Canada, the US, and the UK.

The needs of the medical workforce in Australia will be discussed under the framework of the basic workforce planning model of the US Department of Health and Human Services (HHS) (1999) as has been described earlier on. The discussion will begin with the supply analysis, followed by the demand analysis and lastly the closing the gap phase.

### **2.5.2 Supply analysis.**

The supply analysis, in the case of analysing Australian medical workforce needs will cover three strands. These strands include the stock take of the medical workforce, medical student intakes and the IMG recruitment initiatives.

#### *Supply analysis strand 1: A stock take of the medical workforce in Australia.*

Australia has a total of 81,621 medical practitioners, serving a population of 22.5 million. The medical practitioner per patient ratio of 3.0 in Australia is comparable with the OECD countries' average of 3.1. The Australian ratio, however, may vary state by state. Furthermore, in terms of the medical practitioner demographics, the age composition of the Australian medical workforce looks positive. This is because; unlike the New Zealand workforce where there is a large number of middle to older aged medical practitioners, in Australia almost 50% of medical practitioners are aged 35 years and under, although a sizeable percentage of 25% are 55 years and over. This age profile is important when projecting future losses through exit from the profession.

Like the New Zealand medical workforce, the Australian medical workforce has been affected by reduced participation levels. For example, while in 1999 Australian medical practitioners worked 45.6 hours per week on average, ten years later in 2009 this had decreased to 42.2 hours per week. Such a reduction in activity levels was once translated (Australian Institute of Health and Welfare, 2013) to be equal to more than 6,000 fulltime equivalent medical practitioners (Australian Institute of Health and Welfare, 2013). These reductions in activity levels are a result of lifestyle preferences of mainly young medical practitioners and the pragmatics of the lifestyles of female medical practitioners bound by traditional roles of females caring for families. For example, it was once established that female medical practitioners work 37.5 hours per week while males work 44.9 hours per week in this country (Medical Deans of Australia and New Zealand, 2013).

One issue that has always been noted when discussing workforce adequacy issues is that of the proportion of the specialist workforce. Reports indicate that specialists, who are important for not only providing care but mentoring the junior workforce and the trainee workforce, constitute 33.1% of the medical workforce in Australia. The three years leading to 2011 saw an increase of 12.8% in specialist numbers, improving the rate from 103.3 in 2007 to 109.6 specialist clinicians per 100,000 of the population in 2011. This is compared with New Zealand, where in 2010 there was an estimation of an

average of 97.6 specialists per 100,000 of the population (Australian Institute of Health and Welfare, 2013). Another benchmark regarding this issue is that of the OECD countries, where the average was estimated to be 180 specialists per 100,000 in 2007. The actual numbers of specialist clinicians grew from 21,702 in 2007 to 24,475 in 2011, serving a population of 22.6 million. This increase is contrasted with the New Zealand situation, where the number of practicing specialists registered in 2010 was 4,262 serving a population of 4.3 million (bearing in mind that the Australian population is approximately 5.3 times the size of the New Zealand population). Another positive outlook of this workforce is that general practitioners, who are important in providing primary care services, made up the largest proportion of 33.9% (Australian Institute of Health and Welfare, 2013).

### ***Supply analysis strand 2: Policies.***

A myriad of workforce policies adopted in the 1990s, as shown in Table 13, resulted in workforce shortages. In the period of the early 1990s, the then Labour Government once concluded that there were too many medical practitioners in Australia and subsequently introduced a number of restrictive policies targeting access to Medicare and student places. Further to this, there were also deliberate steps taken to restrict the entry of overseas-trained medical practitioners to the Australian medical workforce. This was done by adding a condition that overseas-trained medical practitioners can only invoice Medicare after ten years from their first practice, with a further condition allowing them to do so only if they work in the districts suffering workforce shortages. There were also cuts to university places in the 1990s to control Medicare payments (Birrell, 2011). It is therefore concluded that the above mentioned government policies had long lasting negative effects on workforce supply and the current focus appears to be on remedying the situation rather than being proactive in intent.

Other policies adopted by Australia have inadvertently produced a draining effect on the New Zealand workforce. Moreover, these policies appear to have been deliberately targeting the brain gain. An example of this is the 2009 Health Insurance Amendment (New Zealand Overseas Trained Doctors) Bill 2009 which amended the Health Insurance Act 1973. This bill became law in April 2009 and it lifted restrictions on New Zealand citizens and permanent resident medical practitioners who gained their first medical degree from New Zealand. Australian laws on overseas-trained medical practitioners, including New Zealanders, had previously controlled where GPs could work and this was to some extent a barrier for New Zealand medical practitioners. For

example, GPs were not allowed to provide non-hospital health care funded by the Medicare insurance scheme for 10 years after becoming medically registered in Australia (Johnston, 2009). Therefore, as can be seen by this example, some reforms in medical workforce planning in Australia may contribute to brain drain levels from New Zealand and hence can be viewed as unethical.

### ***Supply analysis strand 3: Medical student intakes.***

Following the effects of the restrictive policies in the period around 2003 there was a realisation of the impending shortages in the medical workforce and new reforms were introduced (Birrell, 2011). Compared to New Zealand these were comprehensive as they included the areas of medical student intakes, regulation and immigration-related policies. To boost student numbers, the Australian government announced plans to open an additional five new medical schools by 2005, with more to follow after that. As a consequence, the number of domestic completions from Australian medical schools increased from 1,287 in 2004 to 1,915 in 2009. The government also pledged its commitment to increasing the number of funded medical school places nationally, which were set to increase by 60% by 2010 (Joyce, Stoelwinder, McNeil, & Piterman, 2007). By 2012 this was more than the previous pledge of 60%. From 2003 to 2012 the numbers of students commencing medical degrees almost doubled: in 2003 1,889 commenced their undergraduate medical degree compared to 2012 which were numbered at 3,686 commencing (Health Workforce Australia, 2013).

The supply of medical practitioners in Australia has also been boosted by overseas students' medical degree completion figures which rose from 203 in 2003 to 465 in 2009 (Birrell, 2004). A recent study (Medical Deans of Australia and New Zealand, 2013) found that 45% of international students planned to remain in Australia when they commenced their studies. Although up to 2012 students were having difficulties in finding intern places, significant steps have been taken by the Commonwealth government to make sure that they do get intern places. This is indeed an economically viable supply source, as these students are full fee paying. The ethical issues about benefiting from investment from source countries are, however, noted. Another economically viable move has been the increase in the number of domestic full fee paying students. Although New Zealand has made similar reforms aimed at boosting student numbers, the increases were comparatively lower, even considering the fact that New Zealand has a smaller population (Ryall, 2008).

Such increases in student intakes that boosted the numbers of junior medical staff were also complemented by increases in the training of senior medical staff. For example, training places in the GP Registrar programme increased from 600 in the training year 2004 to 1,200 for the 2012 training year (Birrell, 2004). These moves targeting new graduates need to be evaluated against future possibilities of creating competition for the available places for specialist training. Indeed, currently in Australia there have been concerns about bottle necks as there are sometimes fewer numbers of places available for residence training. For example, the 2013 national audit data indicated that there were 162 unplaced Australian-trained graduates (Australian Medical Students Association, 2012). Although these numbers are significant in comparison with related reforms in New Zealand, it must be noted that competition for these training places is high in Australia. The reason for this level of competition is that not only do domestic medical graduates apply for these placements but immigrant medical practitioners with permanent residence do also. However, currently there are reports that the government has made numerous reforms and pledges to complement the needs of residency training (Australian Medical Students Association, 2012).

Apart from boosting domestic student intakes, Australia has also been making alternative reforms aimed at boosting international student numbers. For example, international students who are full fee paying in Australian medical schools are now allowed intern placements for an indefinite time frame. Additionally, such students can apply for permanent residency and can gain access to vocational specialist training programs (Joyce et al., 2007; Smith, 2008). Economically, this is a sensible strategy as it does not draw heavily on government funding of medical places, although it is ethically questionable as source countries are denied the services of these new graduates.

### ***Supply analysis strand 3: Workforce composition and distribution.***

Current projections show that, in terms of numbers, Australia may experience an oversupply by year 2025. However, Australia still faces micro-level shortages such as those in specific sectors like non-metropolitan areas and specialties such as obstetrics, radiology, oncology, psychiatry, general medicine and pathology to mention a few. It is, however, argued here that workforce surplus projections should not be seen as reasons to halt supply channels but rather as reasons to shift emphasis in supply channels. A lesson should be learned from the 1970s' surplus projections that resulted in restrictions

in medical intakes in the 1980s. The impact of such restrictive policies has been felt even up to the present decade (Australian Institute of Health and Welfare, 2013).

In addition to specialty composition issues, Australia also faces problems related to geographical distribution. Geographic maldistribution has been an issue in general practice and medical specialties, such as surgery, psychiatry, gynaecology, obstetrics, ophthalmology, anatomical pathology, psychiatry, diagnostic radiology, and radiation oncology. Rural and regional areas still face medical workforce shortages, generally in all specialties (Health Workforce Australia, 2012). However, Australia as a country has put some multiple targeted strategies in place aimed at resolving issues of maldistribution. These are both incentive-based and education strategies.

### 2.5.3 Closing the gap.

Under the closing gap strand there are two items which will be discussed. These are issues of workforce planning and capitalising on immigrants.

#### *Closing the gap strand 1: Workforce planning.*

As has been discussed, Australia adopted a number of initiatives that are aimed at boosting medical workforce personnel. A summary of some of these measures is shown in Table 13.

Table 13  
*Timeline of Measures of Redress Taken*

<b>Approximate time period</b>	<b>Measures taken to redress workforce shortages</b>
2003	The Government's policy on the medical workforce reverses to a stance that there are too few medical practitioners
2004	The range of eligible locations was extended to 'areas of consideration', defined loosely as those with population- to-medical practitioner ratios akin to those in rural and remote areas.
2005	Five new medical schools were announced for opening with more to follow.
2007	Areas defined as inner regional (which includes the larger regional centres) were included AoC i.e. areas of consideration if they had 'significant workforce shortages
2010	New Zealand citizens or permanent residents who completed medical training in New Zealand were no longer affected by the ten year rule.

*Note.* Adapted from Birrell (2011).

In terms of strategies for meeting workforce shortages, Australia has strengthened and diversified immigration policies to cater for shortages in the medical workforce

generally, as well as targeting remote and rural areas. An example of such pieces of legislation is the old *Medical Practice Act 1992* (NSW) s7(1)D and the *Medical Practitioners Registration Act 2001* (QLD) s135 which enabled medical practitioners to gain medical registration for the purpose of areas of need (Smith, 2008). Furthermore, the states use existing legislation to enable the recruited overseas-trained medical practitioner to gain medical registration for the purpose of filling an unmet “Area of Need” such as *The Medical Practice Act 1992* (NSW) s7(1)D and *Medical Practitioners Registration Act 2001* (QLD) s135.

Surprisingly, despite the fact that these Acts have been in place for nearly a decade, most states in Australia have not projected a surplus in these areas (Smith, 2008). It is therefore inevitable that this gap will be hard to fill as New Zealand has comparatively minimal plans to boost its workforce.

On another note, like New Zealand, Australia has faced criticism for having a number of stakeholders in the medical workforce. These include the Medical Training Review Panel (MTRP), the Australian Medical Council (AMC), the Australian Medical Workforce Advisory Committee (AMWAC), the Department of health and ageing and Territory Health Department. However, unlike New Zealand where most parallel workforce planning streams have been disbanded for example Medical Training Board at the moment there has not been any talk of merging or disbanding of any of parallel streams in Australia. The stakeholders in workforce planning are shown in Table 14.

Table 14  
*Key Stakeholders in Medical Education in Australia*

<b>Authority</b>	<b>Task</b>
Skills Australia	Occupation is on the Skilled Occupation List (SOL).
DIAC	IMGs entering on 457 visas, DIAC issue a visa.
MBA	Grants registration but wait for state territory to confirm area of need.
Australian Medical Council	Sets the English language, medical knowledge and clinical tests.
Department of Health and Ageing	Classifies 'district of workforce shortage'.
State or Territory Health Department	Affirms area of need can, if they wish, prevent an IMG from being registered in a district of workforce shortage if it does not meet their definition of area of need.
The Commonwealth	Pays the bill for services billed on the Medicare system, it can unilaterally reduce the locations in which IMGs can bill on this system.
NIAWP <sup>a</sup>	National internship allocation planning.

*Note.* <sup>a</sup> National Internship Allocation Working Party.

Therefore it can be said that if the adoption of a harmonised workforce planning regime such as was done in New Zealand leads to a better workforce planning strategy then Australia's workforce planning might be hampered by multiple structures responsible for workforce planning.

***Closing the gap strand 2: Capitalising on the immigrant medical workforce.***

In terms of relying on international medical practitioners, Australia has a high number of medical workforce immigrants coming from the English-speaking developed world such as the UK, the US, Canada and New Zealand. From the mid-1990s to the time of writing, there has also been an increase in the percentage of those from mainly the Indian sub-continent and from the Philippines and Arab sub-continent (Birrell, 2004). Australia also relies on immigrant medical practitioners from developing countries such as South Africa and Egypt. The ethical implications of this are discussed in the next chapter. One way by which Australia has demonstrated its commitment to meeting medical workforce shortages by capitalising on immigrants is through its immigration processes.

This approach can be seen in the visa options available for medical practitioners such as the Standard Business Sponsor under the subclass 457 visa programme. Under this programme, immigrants can seek employer sponsorship from an approved standard

business sponsor. It is noted that, for immigration purposes, medical practitioners seeking permanent residency in Australia must hold full medical registration. However even if medical practitioners do not have full registration in Australia they can be sponsored as temporary residents (Department of Immigration and Citizenship, 2013b).

There is also the Temporary Work (Skilled) (subclass 457) Visa and Flexible Work Arrangements which allows Australian organisations to sponsor overseas medical practitioners to work in Australia for up to 4 years under the subclass 457 visa. This visa is for skilled workers from outside Australia who are on the Consolidated Sponsored Occupations List and have been sponsored by a business community or government agency to work in Australia on a temporary basis. This visa opens avenues for medical practitioners to undertake full registration procedures (Department of Health and Ageing, 2012; Department of Immigration and Citizenship, 2013b).

Further flexibility in Australia is noted in the fact that nomination of immigrants for sponsorship can be done not only by employers (Employer Nomination Scheme) but by regions too (Regional Sponsored Migration Scheme). In recognition of a need of International Medical Graduates (IMGs), a more simplified pathway for sponsorship of IMGs was introduced in Australia (Department of Immigration and Citizenship, 2013b). This meant that medical practitioners can apply not only for working for the employer who sponsored them but for other for multiple unrelated employers and also as an independent contractor.

The success of the visa options for medical practitioners can be seen in the fact that in the 2010-2011 year, 3,220 visas were granted to medical practitioners under subclasses 457 (long stay), 442 (occupational trainee) and subclass 422 (now phased out as from July 2010). A proportion of 91.8% ( $n=2,930$ ) were granted under subclass 457 (Health Workforce Australia, 2013).

#### *2.5.3.1.1 The IMG general practice workforce.*

As outlined, one of the strategies for meeting workforce demands includes increasing the number of generalists in the workforce. This is because they provide frontline health services and could be critical in access to care and epidemiology management factor. In Australia, the Commonwealth Department of Health and Ageing has, through the Royal Australian College of General Practitioners (RACGP), provided funding to support IMGs. This support is for those who wish to follow the Practice Eligible Pathway, who

are working in an Area of Need (AON), or at risk of losing their Australian Health Practitioner Regulation Agency (AHPRA) registration in 2011 or 2012. Unlike New Zealand where IMGs mainly sponsor themselves, in Australia such grants also support workshops and individually tailored learning programs (NSW Rural Doctors Network, 2011a).

Another initiative allows IMGs on temporary visas to apply for permanent residence if they work in districts of workforce shortage for five years and can obtain the RACGP Fellowship. This is one area that makes Australia attractive to immigrant medical practitioners whose primary goal is to settle for residence, especially those from politically unstable countries. A third initiative concerns ‘scaling’ provisions of the ten year rule to which IMGs are subject. In this instance, IMGs can have their obligatory period of service in districts of workforce shortage reduced if they do five years of service in Very Remote Areas. After five years’ service they can practise anywhere in Australia if they have obtained RACGP or ACRRM Fellowship status. This reduction also generously applies in the form of four years, three years and one year, that is, if serving in remote areas, outer regional areas, and inner regional areas respectively.

#### *2.5.3.1.2 Other regulatory and policy solutions targeting IMGs.*

Also in terms of immigration, GPs can be accepted under Australia’s permanent entry skilled migration visa categories as long as they can obtain general registration with the Medical Board of Australia (MBA). Employers too can sponsor as many IMGs, HMOs or GPs as they like on temporary entry 457 visas. Under concessions stipulated by the Commonwealth and State Governments, the MBA is required to register these IMGs on a limited basis if they have completed a medical degree and internship; whether in a western medical school or not.

#### **2.5.4 Implications.**

The study question seeks an answer to how the core issues underpinning medical practitioner migration from New Zealand to Australia is affected or related to the global dynamics of medical practitioners. Of relevance here is that the competition for IMGs is at world level and thus world forces of demand and supply may affect Australia. For example, since Australia has a high number of UK medical practitioners, retention changes within the UK may affect supply in Australia and such a scenario may lead to Australia attracting more IMGs from New Zealand. The New Zealand health system which relies on IMGs should therefore make workforce planning accommodate this

bigger picture. Given Australian responses seem to be complex and in competition with New Zealand, this raises the question of where do such responses leave New Zealand in its competition for medical practitioners. It could be that New Zealand is disadvantaged because Australia has comparatively more resources than New Zealand. This therefore may mean that simplistic comparisons which look at figures rather than other complexities should be avoided. As has been noted, Australia has had a comparatively more comprehensive plan to meet medical workforce shortages. Acknowledging the competitive environment that puts the smaller New Zealand economy at a disadvantage, it is also argued that New Zealand can learn from this scenario by also capitalising on comprehensive planning as Australia has already done.

As for the research question about what the dominant characteristics of the New Zealand medical workforce scene are and how these contribute to workforce adequacy or medical practitioner migration to Australia, there is mainly an issue of workforce planning that needs to be pursued. Firstly, learning from student numbers, one recognises that if policy change about workforce strategies is implemented and yields negative results, it is hard to remedy the associated problems. Even when these negative results are realised remedying them is difficult because of the inertia associated with political lobbying for new policy responses. For example, in New Zealand, over three consecutive years about six state agencies have recommended an increase in student numbers and a single national training agency. Nevertheless, change to that effect was still pending until the 2008 pledge by the National government to increase medical student intake numbers by 50% (Ryall, 2008). Secondly, New Zealand's medical workforce is characterised by the use of locums but most reports (Cook, 2009; Hunn et al., 2009) have indicated that locums are to be discouraged and are unsustainable. Hence, responding to these calls would result in fewer locums and a need for more medical practitioners. Therefore, it is important that discussion on workforce supply issues acknowledge this complexity in supply and retention efforts.

## **2.6 Section C: International Outlook: A Snapshot of Current Trends in Workforce Supply and Demand in Canada, US, and UK.**

Apart from understanding the medical workforce scenario in New Zealand and in Australia, it is also necessary to understand what is happening in the three competing English-speaking countries. The reason for making such a comparison are firstly, that the supply and demand discussions used in this research are of a benchmarking type and hence these countries are in many cases (e.g., Zurn & Dumont, 2008) used for

benchmarking health care standards with New Zealand. The second reason for comparison is that these countries are both suppliers and receivers of New Zealand medical practitioners. Thirdly, these countries are suppliers as well as being receivers of IMGs to and from both Australia and New Zealand which makes their case different from other countries such as India. For example, while India contributes one of the highest numbers of IMGs to these countries, New Zealand and Australian medical practitioners rarely emigrate to India. Another reason is that these countries, together with New Zealand, have been observed as of 2006 to be the top English-speaking wealthy countries with the largest number of international medical graduates. For instance, although these percentages have now grown, as of 2006 the percentages were as follows: New Zealand, 35% (now 41%) (Medical Council of New Zealand, 2012) , UK 28%, Australia, 27%, US 25% and Canada 23% (Dwyer, 2007).

The countries will not be dealt with in depth as is the case with the Australia and New Zealand situations, which are of primary concern to this study. The discussion will cover issues related to supply and demand and will begin by looking at the UK scenario, followed by that of Canada and then the US.

### **2.6.1 The United Kingdom.**

It is important to start by performing a stock take of the UK medical workforce. The UK medical practitioner to patient ratio is 2.7 per 1000, with an annual growth rate from the years 2000 to 2009 of 3.4%. This is compared with the New Zealand medical practitioner patient rate of 2.6 per 1000 and the 2010-2011 annual growth rate of 3.2 percent (Organization for Economic Co-operation and Development, 2011). These figures show that in respect of the medical practitioner patient ratio these two countries do not have significant differences.

In terms of headcounts, as of 2012 in the UK there was an estimated 140,000 hospital and community health services medical practitioners and GPs serving a population of 62,262,000 (General Medical Council, 2013). For the decade leading up to 2012 there has been an increase in the supply of medical practitioners in the UK. As in Australia, this increase is the result of increases in the number of medical student intakes and also proactive and targeted recruitment of IMGs. It is at this juncture that a comparison must be made with New Zealand where medical student intake numbers have been frozen for nearly a decade (Birrell, 2011). Even the current increases from 365 students a year to

565 over 5 years from 2009 (Ryall, 2008) are still not significant when compared to that of both Australia and the UK.

However, it is also noteworthy that, similar to the current Australian situation, the UK is faced with dealing with problems relating to the competition for the intern year called the Foundation Programme as well as specialty places resulting from increases in the intakes. The UK situation is exacerbated by the issue of cuts and freezes in government spending under the auspices of the 2010 Government Spending Review (BMA, 2012).

There are other important points to be noted about medical workforce numbers as shown in Figure 4. Firstly, according to the National Health Service<sup>3</sup> (NHS) (2012), the numbers of registrars and consultants has been rising steadily for the decade 2001 to 2010. However, the figure does not show how these rises relate to population increases. Secondly, there has been a steep fall in the number of medical practitioners in training, as opposed to a steep rise in the number of registrars. The effects of this steep fall may be felt in the decades to come.

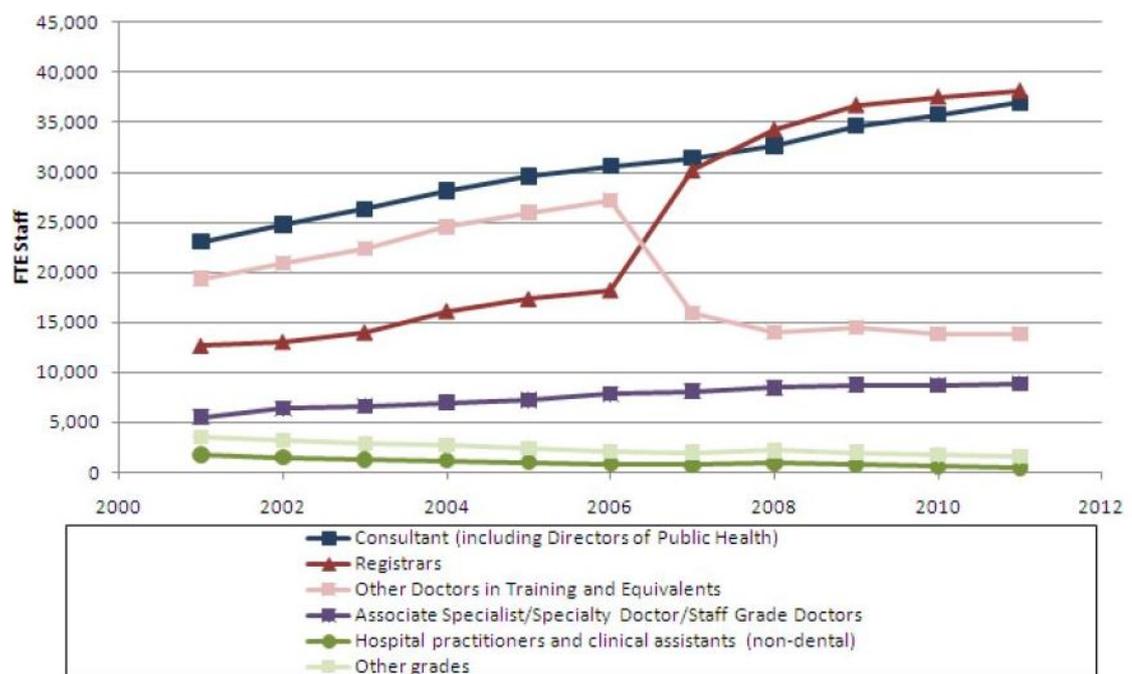


Figure 4. Hospital and Community Health Services medical workforce, year ending 30 September 2001–2012.

Adapted from the National Health Service (2012).

<sup>3</sup> A tax payer funded body that provides healthcare for all UK citizens and other eligible people based on their need for healthcare rather than their ability to pay

Another characteristic of the UK workforce is that of retention where, according to the NHS (2012), between September 2009 and March 2012, joining rates have consistently exceeded leaving rates. Figure 5 demonstrates that joining rates have been higher than leaving rates for the period 2009 to 2012. This shows that the NHS overall recruitment and retention has not only been sufficient to maintain workforce numbers, but also sufficient to expand the medical workforce by 3.4% between September 2009 and March 2012. This could partly be because of incentives in the form of recruitment and retention premiums which are given to some consultants in the UK (General Medical Council, 2013; NHS Employers, 2012).

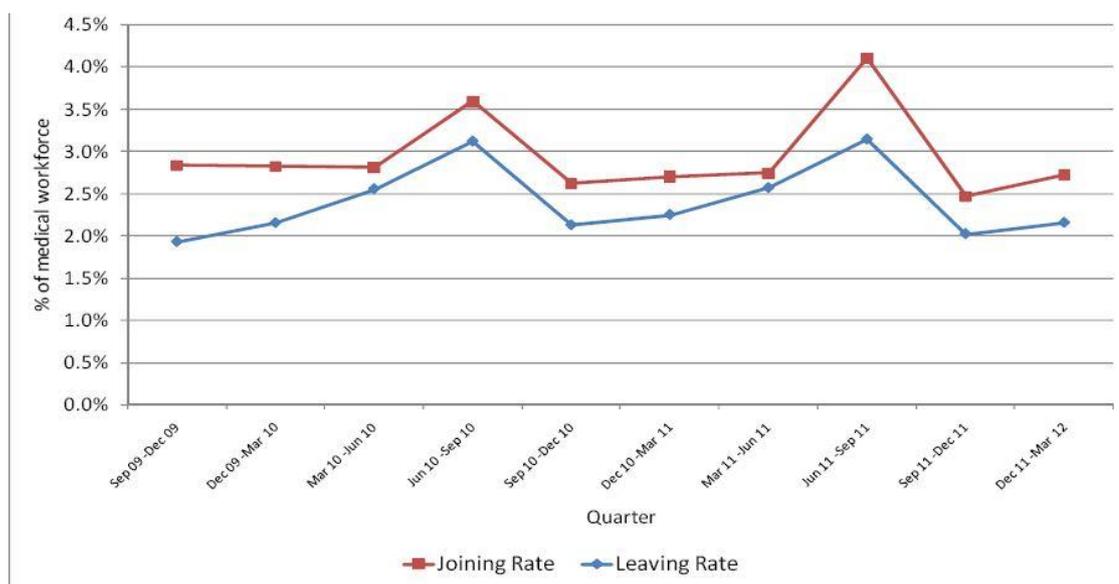


Figure 5. Joining and leaving rates in the National Health System. Adapted from the National Health Service (2012).

Remuneration is another factor that needs to be discussed in relation to retention because as the literature shows remuneration is one of many reasons why medical practitioners leave one country to go to another. Salaries for junior medical practitioners, as was proposed in 2010 for 2011, ranged from £74,504 in year 1 to £83,829 in year 5. The range for year 6 and onwards was from £83,829 to £100,446. On the other hand, it has been claimed that 97% of consultants in the UK are on a salary scale which has eight pay thresholds ranging from £74,504 to £100,446 (Review Body on Doctors' and Dentists' Remuneration, 2012). It is, however, very hard to compare these salaries with either New Zealand or Australia as the way medical practitioners are remunerated is very complex depending on hours worked, length of service, location served and many other variables. The available attempt to compare the salaries is shown in Appendix N, which shows that as of 2012 New Zealand lagged behind both the UK

and Australia in terms of salaries. Compared to New Zealand salaries it can be seen that these are already higher.

The other characteristic of the UK workforce supply is the positive official stance the NHS has adopted to remain globally competitive in the recruitment of IMGs. On this note, it has officially indicated a commitment to look globally in an increasingly global health care labour market. One of its goals is as follows:

To retain a position of positive international reputation, the UK must be able to attract the most innovative and skilled individuals from across the world who will develop and deliver leading edge healthcare for patients (NHS Employers, 2012, p. 3).

In this regard, the UK has an overt policy. Even though New Zealand and the UK are similar by health care benchmarking standards, there is no evidence that New Zealand has adopted a similar stance. In this context of globalisation, one would expect that New Zealand would position itself as a ready global competitor. This position does not necessarily mean recruitment from developing countries; but making itself an attractive option given the fluidity of the medical workforce in moving from one country to another. It also does not necessarily mean direct recruitment; but marketing the country as an alternative to the medical workforce which may be already mobile.

Other issues that are placing a strain on the supply of the medical workforce in the UK include the fact that, according to the 2011 workforce census, 38% of the 39,088 consultants working in the NHS in England were aged 50 years or over (General Medical Council, 2013). If these figures are taken to mirror the other parts of the UK, it can be seen that the UK will have to deal with the problem of the ageing workforce as New Zealand does. Another strain in the UK workforce supply includes the EC directive on working time, which is health and safety legislation to protect employees from working excessive hours. For example, this has reduced the working week for junior medical practitioners to an average of 48 hours by 1 August 2009 (calculated over six months) (Moonesinghe, Lowery, Shahi, Millen, & Beard, 2011). Although medical practitioners are now covered by this directive, it must be mentioned that it is still possible for medical practitioners to work longer hours by signing an opt-out clause.

Another issue to be noted is that the UK seems to be a major supplier of IMGs to both Australia and New Zealand. For example, Table 15 shows that from 2004 to 2012, the UK supplied an average of 500 medical practitioners to New Zealand every year. This is indeed a large number considering the fact that the output of medical graduates from New Zealand’s medical schools is about 500 per year (Cullen, 2013).

Table 15  
*Number of UK IMGs Registered in New Zealand by Region by Year*

Country of training	Year									Total
	2004	2005	2006	2007	2008	2009	2010	2011	2012	
England	444	453	300	317	330	341	387	410	391	3373
Northern Ireland	6	16	11	4	9	11	5	4	4	70
Scotland	124	127	89	99	84	88	109	97	91	908
Wales	32	28	13	23	33	31	47	44	25	276

*Source:* Cullen (2013).

*Note.* Adapted from the Medical Training Review Panel (2012).

Another item to note is that the UK supplies Australia with medical specialists to the extent that they constitute just under 50% of all the IMG specialist population as shown in Figure 1.

As discussed earlier, any retention initiatives in the UK have a potential to negatively affect medical personnel supplies in both Australia and New Zealand. If such a scenario was to prevail, Australia can be in a position to offer salary incentives given its larger and more diversified economy.

In conclusion, it can be seen that the UK seems not to have alarming issues related to workforce supply. Nonetheless, the evidence presented is not sufficient to conclude that there will be a surplus. The reason for this is the unpredictable nature of needs that may arise at any time. It can also be noted that both Australia and New Zealand have a large number of IMGs from the UK and this makes the future supplies of medical practitioners to these countries dependent on the stability of UK trends continuing.

### **2.6.2 Canada.**

Having discussed the UK scenario, it is also important to put the Canadian situation into context. The first step will be to conduct a stocktake of Canadian physicians<sup>4</sup>. In 2011 there were more than 72,000 physicians in Canada. The average age of these physicians

<sup>4</sup> The term ‘physician’ is more appropriate in the US and Canadian setting than the term ‘doctor’

was 51 and they were serving a population of approximately 35 million. This translates to a medical practitioner population ratio of 2.4 per 1000. This situation is not very different from the ratio of both the UK (2.7) and New Zealand (2.6). In terms of composition, in 2011 a proportion of 51% were family medicine physicians and this composition is higher than in New Zealand (40%). Canada also has a larger proportion of specialists; 49% were specialists as at 2011 (Canadian Institute for Health Information, 2010b).

There are two issues apparent from the above figures. Firstly, one issue of concern is that the medical workforce seems to be ageing compared to the average age in the New Zealand workforce which is 45. Secondly, similar to New Zealand and Australia, Canada seems to have higher female participation ratios.

Despite the issue of the ageing medical workforce, one positive outlook for the Canadian medical workforce composition is that, among the English-speaking OECD countries benchmarked with New Zealand, it has one of the highest numbers of family physicians who make up approximately half of the physician workforce (Canadian Institute for Health Information, 2010a, 2010b).

In terms of supply, it was observed that between 2007 and 2011 the yearly increases of the number of practicing physicians ranged from 2% to 4.5% approximately. Between 2007 and 2011, physician growth rates have outpaced population growth rates threefold. The Canadian population increased by 4.7%, while the physician population increased by 13.9%, resulting in 209 physicians per 100,000 head of population in 2011 (Canadian Institute for Health Information, 2010a). In Canada, in the 10 years leading to 2010 the number of IMGs increased by 18.0% (versus 9.5% for the number of Canadian-trained physicians) (Canadian Institute for Health Information, 2010a). At this time it was also observed that physician migration locally and internationally was also on the decline. For example, locally there was 20% overall less movement of medical practitioners over provincial and territorial borders in 2010 than in 2006. Physician migration out of Canada decreased by 16% between 2006 and 2010. In total, 202 physicians returned to Canada in 2010, and 173 left for another country (Canadian Resident Matching Service, 2010). Retention is therefore currently one positive outlook of the Canadian physician workforce.

There is a similarity between the Canadian workforce situation and the New Zealand one in the sense that there was once a period where medical intakes were frozen i.e.,

between 1991 and 2000. The Canadian situation was worse than the New Zealand one because the New Zealand government just kept medical intake numbers constant while in Canada they were reduced by 13.4% between 1991 and 2000 (R. L. Phillips, Jr., Petterson, Fryer, & Rosser, 2007). Moreover, in Canada the entry of IMGs was restricted while in New Zealand it was a question of tightening the criteria for entering the country. Health care spending was also tightly controlled during this period while in New Zealand between 1995 and 2005 different governments aimed to improve access to health care by funding more health care provision institutions (Cumming, 1998; Ministry of Health, 2001).

Another issue faced by the Canadian medical workforce scene is that of migration of medical practitioners to the US. For example, it was once claimed that Canada contributed about 186 active, primary care physicians to the US health care system annually, ranging from 37 to 268. In 2006 this translated to 8% of the Canadian primary care workforce. Canadian specialists in the US in 2006 made up approximately 19.3% of the Canadian specialist workforce. Moreover, Canadian primary care physicians who provided direct patient care in the US represented 8.0% of the Canadian primary care workforce. In contrast, as of 2004 there were 408 US IMGs practising in Canada (Jaakkimainen, Schultz, Glazier, Abrahams, & Verma, 2012; R. L. Phillips, Jr. et al., 2007)

In addition to moving to the US, IMGs from Canada also contribute to the stock of IMGs in New Zealand. For example, Table 16 shows that between 2004 and 2012 the number of IMGs from Canada registered in New Zealand ranged from 21 to 41. These numbers are smaller considering the low retention rates of IMGs in New Zealand.

Table 16  
*Number of IMGs from Canada Registered in New Zealand by Year*

Country of training	Year									Total
	2004	2005	2006	2007	2008	2009	2010	2011	2012	
Canada	39	41	21	29	38	31	39	34	28	300

*Source:* Cullen (2013).

It can be seen from the above discussion that apart from the issue of an ageing workforce and female participation rates, Canada does not seem to be having alarming issues of workforce shortages and are also not predicting surpluses.

### **2.6.3 The United States of America.**

As for numbers; of the 70,000 physicians<sup>5</sup> in the United States of America (US), around 50,000 were working as of 2007 (Weiner, 2007). The physician-to-population ratio is, however, the lowest in the US (at 2.4 per 1000) compared to the New Zealand and the other competing English-speaking countries. However, it must be stated that the situation in the US is unique when compared with the New Zealand medical workforce because, in addition to medical practitioners, many schools train nurse practitioners, physicians' assistants, and medical practitioners of osteopathy. For example, in the US 85% of nurse practitioners provide primary care. Physician assistants also provide primary care (S. R. Latham, 2010). Hence sometimes this variation might skew the numbers when the medical practitioner-patient ratios are considered.

Another point to note about the medical practitioner-population ratio is that, like Australia, the physician-to-population ratio varies from state to state. For example, Massachusetts has the highest number of patient care physicians per 100,000 population (314.8), while Mississippi has the lowest (159.4) (U.S. Census Bureau, 2012).

In terms of demands on the medical workforce and potential losses, it has been observed that the US population growth will be the biggest driver of medical workforce needs, followed by the ageing population. In addition to this issue, the medical workforce itself is ageing with about over 25% of the active physician workforce currently aged 60 years or older (Petterson et al., 2012). Other demands in the medical workforce in the US include reforms for patient care such as the Affordable Care Act which will allow more access to care to the public (S. R. Latham, 2010; Petterson et al., 2012). In this respect it has been argued that population growth will account for 33,000 additional physicians, while the ageing population will account for 10,000 and the insurance 8,000 additional physicians. In terms of absolute numbers it has been projected that from 2008 to 2025 the US will require 52,000 additional primary care physicians (Petterson et al., 2012). The ageing population and that of the ageing workforce are issues even for other competing English-speaking countries. On the other hand, the issue of expansion of access to public care is different, especially in UK and New Zealand where the governments are tightening fiscal policies (Armstrong, 2013; Styles, 2012).

---

<sup>5</sup> A physician trained in the US holds either a Doctor of Medicine degree (M.D), or a Doctor of Osteopathic Medicine degree (D.O).

As for physician supply in the US, the number of active female physicians is lower than that of other group countries. For example, the percentage of active female physicians in 2010 was just under 30% compared to 41% in New Zealand and 51% in Canada.

Another positive supply strand item is that, despite having a number of IMG integration structures, the US relies less on IMGs (under 26% in 2010) compared to 41.5% in New Zealand (Association of American Medical Colleges, 2011).

The US also faces the issue of emigration of medical practitioners to Australia and New Zealand and also recently the Gulf countries (R. L. Phillips, Jr. et al., 2007). Table 17 shows that the numbers of IMGs from the US ranged from 119 to 221 between 2004 and 2012 (Cullen, 2013).

Table 17  
*Number of IMGs from US Registered in New Zealand by Year*

Country of training	Year									Total
	2004	2005	2006	2007	2008	2009	2010	2011	2012	
United States of America	119	167	142	176	198	211	221	222	207	1663

*Source:* Cullen (2013).

As of 2009, the annual growth rate in the number of medical practitioners in the US from 2000 to 2009 was 0.5% (Association of American Medical Colleges, 2011). This was compared to 2.6 medical practitioners per 1000 in New Zealand by that time, with an annual growth rate from the year 2000 to 2009 of 1.9%. However, in terms of absolute numbers required to meet population needs it has been projected that between 2008 and 2025 the US will need 56,000 more primary care physicians (Pettersen et al., 2012).

The other important consideration in the US workforce is lobbying for increases in the medical workforce. Of special interest is that unlike New Zealand where there were reforms that led to demand in health care (Cumming, 1998) with no accompanying political support for increases in the number of medical practitioners (Birrell, 2011); in the US when the Affordable Care Act was introduced President Obama called for accompanying increases in medical intake places (Iglehart, 2009; S. R. Latham, 2010)

It must be noted that, when analysing medical workforce adequacy, these figures should be considered in the context that in the US physician assistants also provide primary care while in New Zealand this is not the case. The main argument is that although the

US does not supply New Zealand with IMGs in a larger scale as does the UK there could be indirect causes of workforce shortages as US graduates migrate to UK, Australia and Canada and vice versa.

## **2.7 Summary of the International Outlook**

The review of workforce scenarios in other competing English-speaking countries showed that there is diversity in health systems in terms of models of health care delivery. Hence, it is difficult, and sometimes not appropriate, to make simplistic comparisons of such issues as salaries, hours worked and the medical practitioner patient ratio. For example, comparing the medical practitioner patient ratio of the US and New Zealand can be difficult because physician assistants and Osteopaths offer medical care in the US. Also in the Canadian context approximately 97% of Canadians have a family physician while in the US less than 80% do (R. L. Phillips, Jr. et al., 2007). In making this argument it is noted that the health targets and emphasis in health priorities in New Zealand and competing English-speaking developed world countries are different. Funding models and policies about private care and health insurance which impact on demand are different too.

A snap shot of other comparable English-speaking countries has helped to locate New Zealand's competition context. As has already been outlined above, in addition to Australia the three other competing English-speaking countries also put New Zealand in a competition environment. Workforce planning efforts should, therefore, be strategic to accommodate the dynamics in the medical workforce in these countries.

## **2.8 Conclusion**

The Australian health system puts New Zealand in a competition environment and this justifies the need to always factor in workforce planning efforts in Australia and related policy changes as these have a ripple effect in New Zealand. On the other hand, this scenario calls for the need for creative strategies for making New Zealand a preferred option for IMGs from Australia and other competing English-speaking countries. Attraction strategies should also extend to targeting the New Zealand medical practitioners who already work in Australia. It has also been noted that further complexity in trans-Tasman migration is added by another dimension of workforce supply and demand dynamics in other competing English-speaking countries. These countries also have dynamics that are similar to the trans-Tasman one, especially Canada and the US. The dynamics in these countries do affect workforce supply in

New Zealand, considering that it also receives IMGs from these countries in varying proportions. Although the trans-Tasman migration of medical practitioners has some unique elements, there are some aspects of this migration phenomenon which are shared with other competing English-speaking countries. Hence, the need to factor in the global context in workforce planning initiatives is justified.

While this literature captures other possible challenges in the New Zealand medical workforce scene, the migration patterns of medical practitioners across the Tasman could be much more complex than portrayed by the literature reviewed. This affirms the need to add another dimension in analysing this issue through migration and ethical theories as follows in the next chapter.

## **Chapter 3: Related Theoretical Frameworks: Migration Theories**

### **Introduction**

The preceding chapter presented literature evidence about the state of the medical workforce situation in New Zealand and in Australia as well as possible causes of the trans-Tasman migration of medical practitioners. This chapter seeks to understand how the phenomenon of medical practitioner movements from New Zealand to Australia relate to other trends of global dynamics of medical practitioners by reviewing migration theories. The chapter also looks at how the shape of this migration phenomenon mirrors or differs from traditional patterns of migration. Selected migration theories will, therefore, be utilised to assess the current issue of medical practitioner migration from New Zealand to Australia. The research question being answered in this chapter is:

- How does the phenomenon of medical practitioner movements from New Zealand to Australia relate to the other issues of global dynamics of medical practitioners?

### **3.1 Migration Theories**

The migration theories are reviewed to understand the shape as well as conceptualising the issue of migration of medical practitioners from New Zealand to Australia from a theoretical perspective. This section initially provides a brief review of other approaches or theories explaining labour migration in general. The section then assesses the applicability of these theories as potential frameworks for thinking about medical migration flows from New Zealand to Australia. It will be seen that not all the traditional migration theories can explain this phenomenon extensively. Therefore, a stance will be taken to defend the need to apply integrative migration theories in regard to medical migration specifically from New Zealand to Australia. Some approaches or theories will be rejected as explanations of the medical practitioner migration from New Zealand to Australia on the grounds of literature evidence presented in the previous chapter.

It is useful to start with the definition of migration before moving on to theories of migration. Definitions that centre on the causes of migration explain that it is the temporary or permanent move of individuals or groups of people from one geographic

location to another, for various reasons ranging from better employment possibilities to persecution (Hagen-Zanker, 2008). Other comprehensive definitions which are centred on decision-making processes of migrants contend that it is “...a relatively permanent moving away of a collectivity, called migrants, from one geographical location to another, preceded by decision-making on the part of the migrants on the basis of a hierarchically ordered set of values or valued ends ...” (Mangalam & Schwarzweller, 1970, p. 11). The important thing about these definitions is that they locate the causes of migration within the social system, while at the same time they do give value to the importance of decision making on the part of autonomously choosing individuals.

The following section seeks to further enhance the understanding of what causes migration, by looking at classical thinking about migration and how such understanding relates to the patterns of medical practitioner migration from New Zealand to Australia as described in Chapters 1 and 2.

### **3.1.1 Classical thinking about migration: Ravensteinian views.**

Current theories of migration tend to have roots in the thinking of the classical philosopher Ernest-George Ravenstein (publications from between 1885-1890) and hence a brief look at Ravenstein’s conception of migration will follow. Firstly, Ravenstein saw migrants as having a preference to migrate in short distances. He concluded that migrants who travel long distances are attracted by developed cities as he wrote “[a] ...great body of our migrants only proceed a short distance” and “Migrants proceeding long distances generally go by preference to one of the great centres of commerce and industry” (1885, p. 99 I). The issue of migration in preference of short distances may be seen as relevant only in so far as it can be observed that there is more New Zealand IMGs in Australia than other competing English-speaking countries which tend to be further away. Although air travel is an option often used nowadays the cost of travel tends to be determined by both distances and popularity of a destination. In terms of centres that attract migrants, while Ravenstein’s thinking may point to what historically was the norm about great centres of commerce attracting migrants, a look at the more recent literature of migration between New Zealand and Australia shows varying evidence about the centres that attract New Zealand migrants. These include not only cities but also coastal areas (Hugo, 2004; Poot, 1995). The same argument applies to the patterns of medical practitioner migration within New Zealand. In some way this theory offers some insights, especially looking at the deliberate policies that both New Zealand and Australia have introduced to encourage migrants to

go to rural and remote areas. Examples are scholarships offered for hard to staff areas in New Zealand (Health Workforce New Zealand, 2013c) and the area of need provisions in Australia (Department of Health and Ageing, 2012).

Another observation by Ravenstein, which offers insights about the nature of migration, is that migration happens by stages; that is, from rural to urban or from remote areas to developed areas which are centres of commerce. He wrote “The inhabitants of the country immediately surrounding a town of rapid growth flock into it; the gaps thus left in the rural population are filled up by migrants from more remote districts,…” (1885, I, p. 199). Nowadays, this thinking has been further alluded to by writers such as Kingma (2006), Hawthorne (2007), and Connell (2010) who have indeed indicated that in the health professional migration literature, there is evidence of step migration from rural to urban and then from urban to the other economically developed parts of the world. For example, nurses from rural Zimbabwe have been seen to be moving to urban Zimbabwe and then to South Africa. South Africa is then used as a stepping stone to the Western developed world, especially the UK, Canada and the US (Hawthorne, 2010).

Although step migration from rural to cities seems to be the case with migration from rural Australia into Australian larger cities, it has not been widely documented in the New Zealand situation. This could be because Australia is geographically larger and more diverse with more genuinely remote areas. On the other hand, New Zealand is geographically narrow and remote areas in this country tend to be associated with coastal areas which are an attraction in terms of medical practitioners’ lifestyles. Both Australia and New Zealand tend to have varied centres of attraction. For example, scenic and coastal areas which are located far from the cities are still seen as centres of attraction or as a bonus to some medical practitioners. It has also even been observed that some remote areas in New Zealand tend to be better paid and better staffed than city areas (Medical Council of New Zealand, 2012; M. Robinson, 2012).

Another application of Ravenstein’s principle of migration by steps which is perhaps most relevant in the Trans-Tasman migration, is the fact that most migrants, especially those from Asian and Pacific countries, have been seen to be using New Zealand as either a back door or a stepping stone to migrate to Australia. It has indeed been said that one of the reasons for the introduction of the 2001 restrictions on welfare benefits to New Zealanders was triggered by this backdoor entry or step migration phenomenon (Birrell & Rapson, 2001; Hawthorne, 2010; Hugo, 2004).

Another insight from the above Ravensteinian thinking has been alluded to by Connell (2010) who indicated that one characteristic of most migration streams is that losses tend to be compensated for by replacements from another source country. Such source countries tend to be subordinate either in terms of what they offer by lifestyles or economically, including salaries. For example, French medical practitioners are lost to Switzerland and Luxembourg and these losses are replaced by medical practitioners from Belgium. In Africa, the relatively developed South Africa loses medical practitioners to Canada and the UK and in turn siphons from poorer countries in Southern Africa such as Zambia, Malawi and Zimbabwe. This thinking therefore triggers questions about whether New Zealand is of a subordinate status to Australia in terms of what it can offer to medical practitioners. In reality, it has been seen that indeed Australia seem to be an immediate dream country for New Zealanders who want to improve themselves economically (Report of the 2025 Taskforce, 2009; The New Zealand Herald, 2012).

Ravenstein also offered insights about the propensity to migrate, differentiating between the rural population and the urban population. In this case, he hypothesised that “The natives of towns are less migratory than those of the rural parts of the country” (I, p. 199). As has been noted, in New Zealand there is a policy designed for voluntary bonding where medical practitioners and other health professionals can have their student loans gradually written off depending on the time they spend in hard to staff areas, which are usually in remote areas (Health Workforce New Zealand, 2013c; Ryall, 2008). In Australia too some medical practitioners in the area of need category of registration seem to be targeted by policies that restrict them to practising in some remote areas before they move into cities (Department of Immigration and Citizenship, 2013b). These policies seem to have been developed in response to observed higher propensity among rural medical practitioners to move to cities.

Another area where the Ravensteinian theory offers some insights is in the area of the relationship between industrial or technological development and migration where he stated that “...an increase in the means of locomotion and a development of manufacturers and commerce has led to an increase of migration” (II, p. 288). Although this has some application in the current observed streams of migration, this would hardly explain a situation where currently Australia and New Zealand tend to have high streams of migrants from the UK, Canada and the United States (see Table 15) which are more industrialised and more technologically advanced than these two countries.

This might offer some insight into the fact that industrialisation now produces different effects, especially in regards to access to the natural environment. Both Australia and New Zealand offer better access to the natural environment than the aforementioned developed countries. Indeed, migrants including medical practitioners have been reported to prefer to settle in New Zealand because of the lifestyle (Poot, 1995).

Lastly, and perhaps the most relevant in Ravenstein's principle, is that migrants tend to be dominated by economic motive which is initiated by the context of the social, economic, political and physical environment. In this case, he observed that currents of migration are produced by "... oppressive laws, heavy taxation, an unattractive climate, uncongenial social surroundings..." On this note, he hastens to emphasise that, however, "... none of these currents can compare in volume with that which arises from the desire inherent in most men to 'better' themselves in material respects" (II, p. 286) (Ravenstein, 1885). The most important thing about this observation is that perhaps this was one of the earliest instances known where consideration of broader contextual influences, rather than simple unitary causes of migration, were first mentioned. In the New Zealand situation, much in the media (Davison, 2010; The New Zealand Herald, 2012; Wade, 2011b) tends to emphasise the fact that medical migration from New Zealand to Australia is caused by salary differences. Emphasising the economic motive, one New Zealand newspaper headline had an article entitled: "Goodbye NZ, hello \$100,000" (Wade, 2011b). The aim of this current study is, therefore, to ascertain the real causes for the migration.

In summary, it can be seen that most of the classical thinking about migration still fits the profile of migration of medical practitioners from New Zealand to Australia. This is because Ravenstein emphasises the social, economic, political and geographical environment. These reasons are similar to the ones discussed in the previous chapters. Most importantly, Ravenstein's classical thinking also acknowledges individuals as thinking beings who weigh up options before they move. However, this is not widely written about in the trans-Tasman medical migration literature. On this note, it is concluded that the trans-Tasman medical migration does fit with the traditional migration patterns as suggested in Ravenstein's thinking.

### **3.1.2 Current migration theories.**

Having looked at the classical theories of migration, the following section will make an assessment of whether selected current theories of migration can explain the profile of

the literature review about the migration of medical practitioners from New Zealand to Australia. These current theories include the neoclassical, new economics, dual labour market and world systems theories of migration which according to the focus by Massey et al. (1993, 1998) on the initiation of migration.

***Neoclassical: Macro and micro-economic models.***

The first theory to be discussed is the neoclassical theory of migration which has two models; the macro-economic and the micro-economic model. The macro-economic model (Massey et al., 1993) explains causes of migration in terms of wage differentials and proposes that migrants not only make a decision to migrate based on wage differentials but other contributors to the maximisation of income such as employment conditions, welfare benefits as well as migration costs between countries. This further extension of income maximisation factors is the strength of the theory. Nevertheless, at the same time this theory has been criticised (Arango, 2004) for ignoring broader contextual factors such as political and social ones. Indeed, according to the literature, the principles of income maximisation, if taken to be broader than wage differences, do explain some of the reasons for medical migration between Australia and New Zealand. However, as has been discussed earlier, media articles have tended to cite mainly wage differences (e.g., Collins, 2010; Johnston, 2011; The New Zealand Herald, 2012).

The other tenet of this theory that is open to critique is the claim that for a migration scenario to occur, the source country should have surplus labour while the destination country has the ability to pay. Although it seems that Australia has the ability to pay due to its larger economic base, it would not be plausible to claim that in New Zealand there is a surplus of medical practitioners; instead it is struggling to meet its needs (Ryall, 2008). The element that refers to surplus labour may explain the migration of medical practitioners from the Philippines, Bangladesh and other countries that have traditionally produced surplus medical practitioners in terms of the number needed or more than the numbers particular governments can afford to employ (Astor et al., 2005; Connell, 2010; Kingma, 2006; Mullan, 2005).

The micro-economic model of individual choice (Sjaastad, 1962; Todaro, 1969) is another version of the neoclassical theory which emphasises the element of seeing individuals as rational actors who calculate not only income related benefits but also maintenance costs such as cost of moving, efforts involved in looking for a job, learning a new language, adapting to culture shock, adaptation to new jobs and the psychological

costs of being away from home (Massey et al., 1993). This theory could be one of the bases for why it is easier for New Zealand medical practitioners to migrate to Australia than any other country. This is because in the literature, it has been observed that some of the reasons that make migration easier are related to cultural and systemic similarities as well as geographical proximity (Hugo, 2004; Poot, 1995, 2009). Indeed, as has been said earlier, these two countries have acknowledged similarities even in their policies and legal instruments for example; as well as shared colleges of medicine and mutual recognition of medical qualifications. On this note, it is therefore concluded that the tenet of this theory fits with the medical practitioner migration phenomenon from New Zealand to Australia.

### ***Dual labour market theory.***

Another theory that can explain the cogent issues in medical migration from New Zealand to Australia is the dual labour market theory which is said to be demand-based as it claims that ‘pull’ factors in receiving countries are the causes of migration and international wage differentials and ‘push’ factors in sending countries are not a necessary condition for labour migration (Massey et al., 1993). According to Doeringer and Piore (1985), this is manifested by recruitment drives by employers and agencies in the destination countries particularly in the developed world. It has also been noted that Australian recruitment drives tend to be more active and proactive than the New Zealand ones and hence this might be one of the lesser contributing factors to the issue of medical migration patterns across the Tasman favouring Australia (New Zealand Herald, 2011b). Another tenet of this theory is that developed countries draw labour not taken by natives by recruiting foreigners to take up unwanted jobs. Although this is the extreme of the theory, in a moderate sense, to some extent such thinking is evident in Australian policies that restrict medical immigrants to remote underserved areas for a stipulated number of years before they move into cities (Department of Health and Ageing, 2013; Department of Immigration and Citizenship, 2013b).

The above theories have mainly focused on the role of market forces and also on the role of decision making individuals. Other theories such as the new economics of migration, in contrast, consider not only labour markets but family and community decision inputs.

***Community centred approaches: The new economics of migration and the networks approach.***

The new economics of migration approach considers labour markets and family and community decision inputs. It claims that migration is a family strategy taken to minimise risks which are traditionally linked to market failures in the absence of public protection (Stark, 1991) in traditional agricultural economies. Thus, remittances can redress the failure in these economies (Hagen-Zanker, 2008). While the families tenet can apply to some immigrant medical practitioners from traditional extended families, the case of New Zealand born medical practitioners could be different as the New Zealand society is characterised by nuclear families (Callister et al., 2008, 2009). In addition, the economy in New Zealand tends to be stable in medium time frames as opposed to being unpredictable (Statistics New Zealand, Ministry of Economic Development, & The Treasury, 2007).

A similar approach, the networks approach, emphasises the family centredness of the decision-making process as well as the value of remittances. The networks approach is relevant in this research in the sense that questions have been posed about the role of New Zealand in causing brain drain among Pacific nations because of its strategic location as well as its economic ties with these nations. There is a need to make a clear distinction about the differences between the medical practitioners migrating from Pacific Island states to New Zealand or Australia, and the migration of medical practitioners from New Zealand to Australia. The main difference is that in the case of the former, the available evidence demonstrates that in the short-term, a number of distinct benefits accrue to individual migrants and their families and to these sending societies. There are benefits largely because of remittances and also family advancements, as well as skill gain and overseas experience that have been reported in studies (Brown & Connell, 2004). In the case of medical practitioners emigrating from New Zealand, there is hardly any evidence in medical migration literature about remittances back to families in New Zealand. This is an area that may need further research. The benefits that have been reported are those associated with professional development. Also there is no evidence that migrants from New Zealand frequently take their extended family members to Australia and this could be presumed to be due to the nuclear centredness of families in New Zealand. Therefore this theory may have little applicability to this research topic.

While the above theories focus on family networks, other theories such as the conflict theory tend to be more global in their approach.

***The conflict theory and migration of health professionals from developing countries.***

The conflict theory is more global in approach as it emphasises capitalism in the context of colonial and neo-colonial relationships. It views migration as a product of domination by the developed world countries. This refers especially to former colonial masters, over the underdeveloped ones in the context of international relations fraught with conflict and tension (Massey et al., 1993). While other theories such as the dual labour market theory will explain such processes as resulting in equilibrium, this theory sees conflict and tension as the result. This is further explained as the extension of exploitation of colonial times which now appears in the form of former colonial masters siphoning human resource investment from developing countries. Contemporary writings (Connell, 2010) have explained what they termed the ‘the second phase migration’ which was dominated by exploitation and disempowerment. The reason for this is that migrant medical practitioners tended to be in the most unpopular parts of the country and in the most unpopular specialities such as paediatrics and psychiatry and very few were found in prestige teaching hospitals (Connell, 2010). Although Connell was writing about historical times, even currently, there is evidence in deliberate Australian policies that force immigrant medical practitioners to practise in remote areas of this country for a specific number of years (Birrell, 2004, 2011).

Controversial as this theory may sound, in other contexts especially in Africa, this theory also may help in understanding the reason why Zimbabwean and South African medical practitioners tend to be lost mainly to former colonial masters such as English-speaking countries like England. Similarly, former French-language speaking colonies such as the Republic of Congo lose their workers to France and the former colonial master Belgium. As will be discussed later in the ethics section of this chapter, there is also a strong moral obligation on the level of the receiving and donating country to work towards a fairer distribution of health care services (Kaelin, 2011). In some way, this is the basis of understanding modern movements of ethical stances that have been adopted by developed world countries such as the NHS International Recruitment Code in the UK and the Melbourne Manifesto in Australia in relationship to recruiting from poor countries (Pagett & Padarath, 2007). These aspects will be discussed in detail in the ethical theories part of this chapter. In a situation where there is equal power

relations such as is the case between New Zealand and Australia, this theory has little applicability.

*The world systems theory and the conflict theory.*

Another globally focused theory is the world systems theory which explains migration as a natural consequence of economic globalisation and market penetration across national boundaries (Massey et al., 1993). From a critical perspective, this theory sees the world economy as being managed from the privileged metropolitan global cities which are centres of economic and service development as well as technological advancement (Castells, 1989; Sassen, 1991). Because of strong demand for services in these global cities, a highly educated workforce is needed and therefore post-colonial ties such as speaking English, for South African and Indian medical practitioners, make it easier and possible for former English colonies to siphon this workforce from these developing countries (Massey et al., 1993). Just like most of the theories discussed above, this theory seems to be more focused on demand forces in the destination countries and fails to acknowledge push factors in the countries of origin. It is also noted here that the aforesaid are the extremes of the world systems theories as scholars (e.g., Connell, 2010) have noted that there are other influences such as proximity, language similarities, and existing social networks. In its purest sense, this theory also bears less relevance in the case of the trans-Tasman migration because there is no post-colonial relationship involved except for the fact that New Zealand was once governed from New South Wales.

The world systems theory in contemporary times has similarities with what other scholars call globalisation-the compression of the world and the intensification of consciousness of a global whole resulting in interdependence in the world as a whole (Robertson, 1992). Explaining the New Zealand to Australia medical migration in terms of globalisation is important because even the competing English-speaking countries have strengthened measures of assisting IMGs to be registered (Bedford et al., 2002; Canadian Alliance of Education and Training Organizations, 2004; Osbourne, 2002). This therefore means that any attempt to explain migration should acknowledge influences of forces of globalisation. The thinking in terms of globalisation has also been evident in organisations such as the World Federation of Medical Education (WFME), a global organisation concerned with enhancing the quality of medical education world-wide. The WFME acknowledged that “The world is characterised by increasing internationalisation, from which the medical workforce is not immune” and

the medical workforce is in principle, globally mobile (Stern, Wojtczak, & Schwarz, 2003).

Examples of such globalised movements are not limited to New Zealand and the competing English-speaking countries but do extend to other OECD or European Union (EU) countries which have a relationship with these countries. For example, flows from Germany to other EU countries where from 1997 to 2001, Norway recruited 268 German general practitioners, and 101 specialists. Over the same period 100 German physicians were recruited in Sweden. In 2002, more than 2000 German physicians worked in the United Kingdom NHS (Jakubowski & Hess, 2004). France in early 2000s began recruiting specialist physicians from Germany. The Netherlands was also then recruiting German physicians (Jakubowski & Hess, 2004). This is also the case with large mobility between the Nordic countries that are partly attributed to linguistic similarities. However, as noted earlier, each country is now recruiting from outside the region. For example, in early 2002 Sweden initiated a recruitment campaign in Poland, leading to the employment of 30 Polish physicians (Skoglund & Taraldset, 2000). The scenario shows that in the case of globalisation not only the medical practitioners are active but the health systems are taking active steps to influence migration. This has implications for other competing health systems to reciprocate the competition trends.

### **3.1.3 Analysis.**

The theories discussed do offer insights into the New Zealand to Australia medical migration phenomenon in three major ways. Firstly, the theories shed light about the importance in considering the forces of the economic market in Australia and New Zealand as determining the direction of the flow of medical practitioners. Indeed anecdotal evidence from sources such as newspaper articles and political debates points to the pay gaps as the cause of having the flow of medical practitioners favouring Australia (New Zealand Herald, 2011b; Report of the 2025 Taskforce, 2009). Secondly, the theories discussed above offer insights in factoring in the role of global forces such as industrialisation in capital economies and neo-colonial relationships as having both a direct and an indirect flow-on effect on the emigration of New Zealand medical practitioners. Thirdly, the roles of family units as determinants of migration have been emphasised.

However, there are major shortcomings with these theories. Firstly and most relevant to this study; these theories seem not to have a direct explanation for movements of people

to neighbouring countries with similar economies and similar socio-political environments such as is the case for New Zealand and Australia. Secondly, each of the theories fails to capture the role of broader structural forces and of individual factors and how these interlink to produce migration. Thirdly, these theories do not consider issues of race, socio-economic status, language and gender as complex factors to be accounted for in explaining migration. Fourthly, each of these migration theories tended to focus on particular philosophical biases (e.g., neo-colonial theories being underpinned by Marxism) with the exclusion of other factors such as personal and workplace factors. In summary, these theories also tend not to be unified; that is, they treat causes as disjointed and not linked to each other.

Given the above shortcomings of the mentioned theories, it is therefore suggested that integrated approaches may provide an alternative as they look at both individual and contextual factors. For example, several authors have called for an integrated approach that links different levels of social organisation, analyses simultaneously the origin and destinations, and considers both historical and contemporary processes (Fawcett & Arnold, 1987; Massey, 1990). Fawcett and Arnold (1987) suggest that international labour migration be viewed as a unified social process and that individual decisions and actions are conditioned by “contextual factors” (structural forces) operating at each stage of migration (Goss & Lindquist, 1995).

Indeed, scholars such as Bakewell (2010) have argued that:

...for any theoretical account of international migration ... to be satisfactory it must include four basic elements: first, a treatment of the structural forces promoting emigration in areas of origin; second, the structural factors enabling immigration in destinations; third, consideration of the motivations, goals and aspirations of the people who migrate; and, finally, an analysis of the social and economic structures that are formed to connect areas of outward and inward migration. (p. 1693)

This argument is also supported by Massey et al. (1998). While one or two aspects of the above have been mentioned by others (e.g., Ravenstein, 1885), none has attempted to integrate them into a unified theory (as proposed by Massey et al., 1998). Indeed, other scholars such as (Lee, 1966) have defended the need for unified migration theories that accounts for “.... four major factors: origin factors, destination factors, intervening opportunities and personal factors” (p. 285). An attempt is, therefore, made below to

defend the fact that unified approaches could be better alternatives in explaining the New Zealand to Australia medical migration phenomenon.

#### **3.1.4 Summary.**

It has been noted that there are some characteristics of the New Zealand to Australia trans-Tasman migration of medical practitioners that match the traditional patterns of migration as can be seen in the literature about migration theories. At present, these theories only offer theoretical propositions as the results of the study are not yet integrated. It has been seen that there is no one theory that can fully explain the migration phenomenon being studied here. It is therefore proposed that the better alternatives are the ones that are integrated in nature, as these may acknowledge the complexity of this migration phenomenon.

#### **3.1.5 Conclusion.**

The migration theories have been reviewed with the aim of understanding the trans-Tasman medical practitioner migration phenomenon and how it relates to other issues of global dynamics of medical practitioners. On this note, the context and the importance of the economic and socio-political relationship between Australia and New Zealand makes the trans-Tasman migration issue uniquely different in some respects. Other factors which are structural in nature, as well as such factors as the globalised nature of the world, technology and mode of travel, tend to be universal in relation to understanding the issue of medical practitioner migration in other contexts. The complexity of general forces leading to migration in general has not been ignored and it is on this note that migration theories that do not acknowledge the socio-political, economic and geographic links of Australia are rejected. They are excluded on the grounds of not being congruent with literature evidence pointing to this relationship, as has been discussed. Theories that propose certain factors as exclusively responsible for the migration are also rejected on the grounds of not acknowledging the complexity of this issue. The following chapter further explores complexity issues which mainly relate to ways of managing the trans-Tasman migration issue ethically.

## **Chapter 4: Ethics and the Migration of Medical Practitioners**

### **Introduction**

Similar to the preceding chapter the writer will critically analyse how the phenomenon of medical practitioner movements from New Zealand to Australia relate to other trends of global dynamics of medical practitioners by reviewing migration theories. The chapter also looks at the extent to which this migration raises ethical issues. Selected migration and ethical theories will, therefore, be utilised to assess the current issue of medical practitioner migration from New Zealand to Australia. The research question being answered in this chapter is:

- How does the phenomenon of medical practitioner movements from New Zealand to Australia relate to the other issues of global dynamics of medical practitioners?

### **4.1 Rationale**

Although this research focuses on migration of medical practitioners from New Zealand to Australia, the issue of medical migration is a global phenomenon. It has, therefore, been previously widely researched and scholarship has tended to also examine ethical issues that result from such movements (Dwyer, 2005, 2007; Eckenwiler, 2009; Eyal & Hurst, 2008; Kaelin, 2011; Taché & Schillinger, 2009). This section assesses this issue from the perspective of ethics. It will therefore examine questions of justice at international level followed by questions of justice at a national and individual level.

The study research question being answered is: how does the phenomenon of medical practitioner movements from New Zealand to Australia relate to the other issues of global dynamics of medical practitioners?

It is important to mention that one unique aspect of the ethics of medical migration in the Trans-Tasman context is that these movements are from one resource rich country to another resource rich country. However, before discussing issues related to such movements it is important to examine the issues related to the migration of medical practitioners from the poor resourced countries to the rich resourced countries. This is important because some of the overseas trained medical practitioners who work in New Zealand are from poor resourced developing countries such as South Africa. It is therefore necessary to begin by acknowledging that while ethical issues arise in

migration flows between rich resourced countries, the most worrying issues are those that arise when flows are from poorly resourced countries.

In terms of equity principles, the distribution of basic burdens that people suffer and the benefits enjoyed by the distribution of the health force between rich and poor countries is a prime example of worldwide inequity. The World Health Organisation (WHO) offered insight to help deliberate about this scenario by giving an example of the distribution of the health workforce where 11% of the world population in the Sub-Saharan Africa bears 24% of the global disease burden but has 3% of the world healthcare personnel. On the other hand, 14% of the world's population in the Americas has 10% of the disease burden managed by 37% of the health workers (Taché & Schillinger, 2009; World Health Organisation, 2000). One principled way of assessing the distribution of benefits and responsibilities between receiving and sending countries and the actions of developed countries that receive medical practitioners from low-resourced developing countries is through the perspectives of global justice theories of John Rawls and Immanuel Kant's doctrines of the categorical imperative and that of virtues. The following discussion starts by focussing on John Rawls's global justice theory.

John Rawls's global justice theory can be used to assess the injustices related to this issue and provide guidelines for corrective actions. Rawls's universal theory of justice looks at what is just, and what the basic rights are. Following this theory, the global society should manage the situation of health workforce imbalances by interventions such as having the concerned countries deliberating on the issues of justice and basic rights behind 'the veil of ignorance' (Kaelin, 2011). A veil of ignorance is an abstract, universal principle to which all individuals, who are supposed to be free, equal, and autonomous agree. The direct application of Rawls's notion of the state of being free and equal is that health care is a prerequisite for people to be considered to meet these two states. It enables them to recover from sickness and accident and, thus, make use of their rights and liberties. The status of being free and equal facilitated by the principle of this veil of ignorance supposedly guarantees that the individuals will make impartial choices and agree on what the basic rights are and on what is just. To Rawls, people have to decide what is just because justice is an attribute of a social organisation and it is the first virtue of social institutions and structures.

To achieve such justice Rawls proposed a social contract theory which works on the hypothesis of people joining together and deciding to bring about a just social and political community. It is in this instance that it is argued that developed world countries cannot be positioned to compete with low- resourced developing countries by discussing what is just and fair under a veil of ignorance as there is certainly no level playing field in this scenario. The implication of this standpoint is therefore that developed world countries should not assume a level playing field when dealing with issues of sharing resources such as the medical workforce with developing countries. They should acknowledge their dominant positions and seek to remedy such an unfair playing field by ways that will be discussed in the following paragraphs.

Another tenet of John Rawls's global justice theory is that people's equal moral worth generates moral reasons that are binding on everyone. This follows that when considering receiving medical practitioners from the low-resourced developing countries, from this perspective, the unequal medical practitioner distribution is a moral problem (Kaelin, 2011). The rich receiving countries therefore have an obligation to take action to redress the issue.

According to Rawls, lack of health care deprives people of their ability to make use of their liberties and hence not play their part in society. In this direct application of Rawls's theory to health what is emphasised is the need to restore "our capabilities when by illness and accident we fall below the minimum and are unable to play our part in society" (Kaelin, 2011). For example, John Rawls would see recruitment policies from other countries as insensitive and undermining the basic rights of people in low-resourced countries.

The implications of Rawlsian global justice theories are, therefore, that the receiving rich resourced countries should endeavour to examine their actions in so far as competition with low-resourced countries is concerned. They should also consider the effects that their actions have on the citizens of low-resourced countries.

#### **4.1.1 Insights from Kantian ethics.**

In addition, deliberating on what is just and how to remedy what is not just, the actions of rich resourced receiving countries in making or failing to adopt policies that discourage poaching from other countries are examined. For example, as outlined in addition to relying on medical practitioners from one another, developed world

countries have been reported to be still reliant on medical practitioners from low-resourced countries such as South Africa, Ghana and Nigeria (Astor et al., 2005; Eyal & Hurst, 2008). In this instance, the actions of developed countries need to be analysed from an ethical perspective. Aspects of Kantian ethics may guide in the deliberation of situations such as these where there are processes put by receiving countries to attract medical practitioners from low-resourced countries.

Kant believed that the morality of an act must be judged on the motive or intent of the actor and not on the consequences. In his test of whether an action meets a moral obligation he proposed what he referred to as the first formula of the categorical imperative- let principles override consequences. By this he meant that motives are the key to evaluating an act. Thus, one needs to assess the action of an agent and not the consequences of action. In this case, if there are policies in developed world countries that encourage the recruitment of medical practitioners from low-resourced countries we should look at the intentions and not the consequences.

On this note, the developed world countries are seen as doing good because they have an obligation as individual states to meet their workforce needs in order to optimise the health outcomes of their population. Since a moral action is one that is performed solely for the purpose of meeting a moral obligation, what is relevant in this case is the intention behind action and not the consequences on the sending countries. It can therefore be seen that if we are to argue consistent to the categorical imperative we might find ourselves in support of these actions. One argument put forward is that developed world countries' intentions to meet the health needs of their populations should be viewed in the context of global thinking, that is, putting the needs of low-resourced countries in context. In this case, when deciding what the intentions are, the developed world countries are seen in a bigger picture that encompasses the developing countries.

Kant also proposed what he called the second formula of the categorical imperative - act as to treat humanity, both in your own person, and in the person of every other, always at the same time as an end, never simply as a means (O'Neil, 2002; Tan, 1997), can be useful in evaluating the actions of the medical recruiters. This is in the case of deliberate poaching or recruitment initiatives from low-resourced countries by rich developed world countries. Such a scenario also happens among the developed world countries themselves. For example, Australian medical recruiting companies are on record as

even going onshore to New Zealand to advertise medical vacancies in Australia (Toevai & Kiong, 2007). This has not been debated probably because Australia and New Zealand are seen as equal players who should leave competition to be directed by market conditions. In this instance, the question still remains about developed world countries' medical vacancies that appear in low-resourced country newspapers such as in South Africa. Using Kant's second formula of the categorical imperative it is here argued that when medical recruiters are seen as having a primary motive of profit, in Kant's terms this can be interpreted as treating others as a means to an end, that is, a means to achieve profits at the expense of the suffering health systems in other countries.

Moreover, to find the answer to the question of deliberate poaching it is important to understand doctrines of virtue and that of justice in Kantian ethics. The duties of virtue are about ethics and cannot be enforceable or externally demanded from an agent as opposed to duties of justice which are about rights and are enforceable (Tan, 1997).

The obligation of rich resourced countries to fulfil the duties of virtue has resulted in the mushrooming of ethical recruitment codes, especially in the past twenty years. It is noted that despite this effort these codes have not resulted in any noticeable deterrent in poaching activities in low-resourced countries. The absence of enforcement in duties of virtue has been the major criticism of voluntary codes of ethics as these are not enforceable and poaching still exists as the duty to abide by these codes of ethics, is left to the discretion of those who choose to abide by them (Tan, 1997). This is because duties of virtue are imperfect as they do not specify what actions ought to be done. The agent has the final decision on how, or to what extent, they are implemented. This can be seen in the Melbourne Manifesto which was an ethical Code of Practice for the International Recruitment of Health Care Professionals adopted at 5th Wonca<sup>6</sup> World Rural Health Conference Melbourne, in Australia in May 2002. In its principles, this code only emphasised such virtues as integrity, transparency and collaboration in the processes of recruitment of health professionals from needy countries. This evidence of virtue ethics inherent in it can also be seen in its purpose which is to:

... discourage activities which could harm any country's health care system...  
[and that...] "...Countries considering and benefiting from recruitment from other countries must: a) examine their own national circumstances and b)

---

<sup>6</sup> A world organization for family doctors.

consider the effect that their existing recruitment policies and practices are having on lesser developed countries. (National Rural Health Alliance, 2012, p. 2)

Another argument of note is that if one but not all developed world countries follow these ethical codes in a strict manner, such a country will be put in an unfair competition environment with other developed world countries that continue to recruit. It is, therefore, argued that to be effective ethical recruitment codes need to be adhered to collectively and not by isolated blocks of countries.

Relying entirely on Kant's doctrine of virtue in terms of global justice in the distribution and utilisation of the medical workforce may not give us adequate rationale for action. Scholars such as Tan (1997) have proposed the need to instead rely on the strength of Kant's doctrine of duties of justice. The reason for this proposal is that such a stance acknowledges that assisting the needy is an issue of justice rather than an issue of virtue. These proposals, in summary, require that developed world countries fulfil their duties to provide redress by giving to those whose suffering they are causally responsible, that is, for the wellbeing of those in low-resourced countries.

#### **4.1.2 A philosophical discussion of corrective actions.**

According to scholars (McIntosh, Torgerson, & Klassen, 2007) there are three levels of justice that are relevant to ethical recruitment practices in developing countries. Two of these levels which have a theme of a moral obligation to corrective action and a moral obligation to mutual respect will be discussed.

The first level which is called distributive justice requires an equitable allocation of resources among groups of countries, with specific reference to physician needs. The Alma Alta Declaration added to this by stating that in addition to health workers, and world community organisations, all governments of different countries are key players in the equitable allocation of health resources. These world community organisations, which are the World bank, IMF, WHO, Bilateral and Multilateral agencies, are key players in global distributive justice, and just economic distribution (Kingma, 2006). This writing therefore challenges action from these organisations and different governments, especially in developed world countries.

The second level of global distributive justice is called corrective justice and it requires corrective action to address inequities that have already been created by unfair

recruitment practices (Freeman, 2007). This includes raising questions about whether there is a duty on the part of wealthier nations to compensate those countries whose needs have been eroded. This issue can be deliberated from the perspective of Kantian ethics- the humanity as end-in-itself formula of the categorical imperative. As has already been stated, this formula guides individuals to act in such a way that they always treat humanity, whether in their own person or in the person of any other, never simply as a means, but always at the same time as an end (O'Neil, 2002). For example, Tan (1997) stated that using this formula it can be argued that it is impermissible to leave those in distress suffering. In this circumstance not coming to their aid is morally equivalent to treating them as objects without any value as an end-in-themselves (Tan, 1997).

Indeed in the literature there has been much argument as to whether richer countries should compensate low-resourced countries or not (Eyal & Hurst, 2008). However, the corrective actions that have been proposed such as monetary compensation (Eyal & Hurst, 2008) raise other ethical issues as they are linked to neo-colonial thinking of benefiting from former colonial masters. Even other incentives suggested in policy statements such as the Melbourne Manifesto have been looked at with hesitation along these lines. Similarly, several medical schools have been established in the developing world by well-known developed world universities (Eckenwiler, 2009; Eyal & Hurst, 2008) but this apparent investment in the local health system also tends to produce graduates for export back to the developed world. This approach potentially reduces the value to poorer nations of the first world facilities and training that are developed locally.

### *Implications.*

It is anticipated that the above discussion will challenge the developed world countries in regard to their moral obligation to take action about brain-drain from low-resourced countries in two fronts: remedying the losses that have been suffered and also taking future proactive action to minimise chances of similar brain-drain scenarios existing. It is argued that international organisations such as the WHO, the IMF, the World Bank and multi-lateral organisations such as the OECD are powerful world players and therefore challenged to champion counter brain-drain scenarios by adopting or influencing a global justice approach, where there is relevance. Reflection on the part of medical practitioners is recommended as many studies have tended to discuss issues outside the influence of medical practitioners. These studies have therefore made

recommendations for action by states and organisations with the exclusion of medical practitioners.

#### **4.1.3 Ethics of flows between developed countries.**

In discussing ethical issues raised by the migration of medical practitioners, most of the studies (Dwyer, 2007; Eckenwiler, 2009; Eyal & Hurst, 2008) have tended to focus on ethical issues that arise from the movement of medical practitioners from the poor countries to the rich countries. This approach is justifiable because of health equity issues raised by such movements. Consequently, there is limited scholarship that discusses ethical issues that arise when medical practitioners migrate from one developed world country to another such as the case of migration flows from New Zealand to Australia. Accordingly, it is argued in this writing that apart from the principles of fair distribution of resources between the developed and the undeveloped countries, ethical issues also arise when voluntary migration occurs from one developed country to another. These issues mainly concern intentions inherent in the actions of those concerned, regarding whether they are medical practitioners themselves or the receiving countries.

It is here proposed that the ethical issues that arise when medical practitioners migrate from one developed country to another should be examined along the lines of individual justice perspectives. The reason for this approach is that in this migration scenario, medical practitioners are active players who migrate voluntarily. However, most studies (Astor et al., 2005; Eyal & Hurst, 2008; Hussey, 2007) have tended to portray them as passive beings who respond to forces dictated by dynamism of global movements. The issues to be examined relate to individual freedom and individual obligations of medical practitioners to their societies. Hence, these issues will be analysed under the frameworks of the ideals of social responsibility and obligations. Both Rawls's global justice theory and Kant's doctrines of the categorical imperative and that of virtue ethics can offer some insights in discussing such ethical issues.

##### ***A global justice perspective.***

Before looking at issues of individual justice it is important to revisit Rawls's notion of global justice. As has been discussed, another level of application of Rawls's global justice theory is looking at the flows between developed world countries. One tenet of his global justice theory is that justice is an attribute of a social organisation and it is the first virtue of social institutions and structures. To achieve such justice, Rawls proposed

a social contract theory which works on the hypothesis of people joining together and deciding to bring about a just social and political community. In this instance, Rawls's basic question is simply phrased as: how can society be organised in a just manner? Assumptions of Rawls's theory are based on abstract, universal principles to which all, taken as free, equal, and autonomous individual persons who make impartial choices (veil of ignorance), can agree on what the basic rights are and on what is just. If Rawls's theory of justice is to be applied to New Zealand and Australia, one would argue that these two countries have a level playing field from which to discuss the effects of emigration flows between the two. Thus, the outcome of such a discussion can be judged as just. This view is based on the assumption that the two countries are relatively equal competitors, with both classed as developed countries. Consequently, it can be argued that ethical issues that arise from flows between these two countries are not as compelling as those of flows from developing countries to the developed world.

#### *Individual justice perspectives.*

In terms of individual freedom, it has been argued that free movement is a principle of great moral weight (United Nations Human Rights, 1948) and as such any discussion of ethical issues surrounding the migration of medical practitioners should consider what Rawls would call medical practitioners' basic freedom of movement. According to Bader (2005), freedom of movement across state borders implies the legally recognised right to emigration and voluntary expatriation. Accordingly, the term used is 'justice in emigration'. This term refers to situations where restrictions on outgoing freedom of movement need to be just. To achieve such basic liberty states cannot force medical practitioners to stay in their countries of training. In the context of medical migration, particularly between New Zealand and Australia, it is interesting to note that even the international ethical recruitment codes such as the Melbourne manifesto have upheld individual autonomy rights. For example, principle number 3 reads:

The principles of social justice and global equity, the autonomy and freedom of the individual, and the rights of nation states, all need to be balanced (National Rural Health Alliance, 2012, p. 2)

On the other hand, Article 13 of the Universal Declaration of Human Rights of 1948 states that the right to emigrate is itself a human right and social responsibility of health care professionals (United Nations Human Rights, 1948). One basis of this responsibility is the public investment that society makes in the education and training

of health care professionals (Dwyer, 2007). In this instance, it is argued that ethical discussion around this issue should include discussion of medical practitioners' rights to freedom of movement being weighed against the population's rights to access to basic liberties of care.

In this regard, it has been argued that while medical practitioners are exercising an important human right to migrate and are helping receiving countries fulfil obligations of social justice they are however also, creating problems of social justice in the countries they leave. According to Dwyer (2007), solving these problems requires balancing social needs against individual rights. In terms of ideals of responsibility and social justice in this scenario, one can argue that individual New Zealand medical practitioners are causing harm by leaving their country and contributing to shortages. However, global justice advocates (Taché & Schillinger, 2009) argue that this harm is caused by asymmetric and unfair incentive structures between destination countries and source countries. As long as these imbalanced incentive structures exist, individual actors will continue to act rationally within these structures. Efforts to change unfair institutional and governmental incentive structures therefore require a global justice approach rather than an individual justice approach (Taché & Schillinger, 2009).

Further, in terms of virtue ethics, examination of individual actions of medical practitioners can be done by focusing on professionalism and integrity. According to Simpson and McDonald (2011) professionalism and integrity require health professionals to act in ways consistent with the values of their respective profession. In this instance, one needs to question the intentions of medical practitioners when they chose their profession to ascertain if they did so for the right reasons related to care or they did so for the sake of associated higher incomes or migrating abroad. For example, it has been documented (Connell, 2010; Kingma, 2006), that there are countries such as the Philippines where the nursing and medical profession are seen as vehicles for going abroad. Following this argument, in terms of seeking better remuneration Simpson and McDonald (2011) argue that it is recognised that health professionals have a legitimate interest in appropriate levels of remuneration. The question here therefore is, to what extent should medical practitioners balance personal interests with national interests when migrating from one country to another for higher salaries.

The intentions of medical practitioners when migrating are examined utilising Kant's categorical imperative. In the case described above, the intentions of medical

practitioners are to fulfil their aspiration needs for a higher income, education, adventure and many other related wishes rather than basic needs of survival. It is important here to mention that aspiration needs are those that people seek when their basic needs have been met such as self-fulfillment and esteem (Maslow, 1954). This is the case because in most societies medical practitioners are paid well over most members of the society (Davison, 2010). Additionally, the migration theorists such as Massey et al. (1993) may argue that such forms of migration are a national investment to families and remittances that help the country's economy. However, Bader (2005) argues that this is not an effective remedy for poverty because the country's low income earners might not be helped in this way as those who can afford to migrate are usually not among the worst-off.

Moreover, the actions of individual medical practitioners can be examined from the perspective of distributive justice. This viewpoint claims that while the medical practitioners have a free will to choose to migrate, at the same time they are not meeting their social obligations (not doing justice) to meet the workforce needs of their country (Taché & Schillinger, 2009). In this instance, justice, according to Seglow (2005) concerns what one *can* do for others, or what they *ought* to do for fellow members of their common humanity. The guiding principles of these perspectives is that individuals bear special obligations of distributive justice to other members of their nation (Caney, 2001; D. Miller, 1995; Tamir, 1993).

Seen at nation state level, especially donor nations, this thinking can be useful as it claims that medical practitioners need to consider their social obligations to the nation when making decisions to migrate. However some critique has been given to this thinking especially on the grounds that the assumption of this principle is that individuals have special duties to others because they engage in a joint cooperative national system (D. Miller, 1995; Tamir, 1993). The main question that follows is: Are nations really co-operative systems with common goals? The answer is that this is far from being true as some individuals are born into social strata that will predispose them to propensity for individualism and hence self-sufficient. Conversely, others are born into strata that make them dependent on national resources.

### ***Ethics of payments of medical practitioners for retention.***

Other ethical issues that are mainly of relevance to both New Zealand and Australia relate to the extra pay packages that are given to medical professionals, especially as

retention packages. Both these two countries pay extra packages to medical practitioners to retain them in the country or in specific specialities and areas within the country. For example, in New Zealand between 2012 and 2013 medical practitioners received pay increases of approximately 5% per annum while at national level the average pay increase of most workers was approximately 0.5% per annum (Statistics New Zealand, 2013a; Topham-Kindley, 2012). Another situation that occurred in New Zealand was where medical practitioners in surgical specialities were once awarded almost double the salary increases than medical practitioners in specialities such as psychiatry (Donnell, 2011). An approach to the ethical explanation for this scenario is called the societal worth approach. The societal worth approach by Guderma and Hubbard (2005) treats compensation primarily as a tool for achieving an end (Gunderman & Hubbard, 2005). The societal worth approach seeks to value occupations in terms of their contributions to communities, states, or even all of mankind.

From the perspective of societal worth, it does not matter how much a certain group of workers is being paid at the time, or account for how much one occupation is being compensated relative to another. Instead, the critical question is: How much does the public benefit from this particular line of work and what level of compensation is appropriate to that benefit? In this sense it would indeed seem appropriate for medical practitioners to be paid higher salaries relative to other members of the public as access to health care is considered a basic right in New Zealand. The only controversy in regard to this view arises when one compares medical practitioner salaries with that of childcare teachers, which is double the latter. The issue here is that raising children in good care is vital for the kind of society that the public needs in the future.

The discussion of the societal worth approach in the payments given to medical practitioners is significant in discussing the movement of medical practitioners from one developed country to another, in three ways. Firstly, the significance is in the sense that the two competing developed countries can arguably be seen as being in a relatively level position in their abilities to recognise societal worthiness of medical practitioners. This is in contrast to the imbalanced competition between a developing country and a developed one. Secondly, a question arises as to whether individual medical practitioners or their associations can be challenged to judge the appropriateness of retention packages against what their professional obligations are to provide care. Thirdly, the discussion of the societal worth approach and the payments to medical

practitioners for retention in developed countries raises ethical issues of equity, even within or between developed countries.

*Corrective actions and future directions for ethical thinking.*

Utilising McIntosh, Torgerson, and Klassen's (2007) ideas for corrective actions can be approached by procedural justice. These actions require that efforts to achieve equity respect the rights of all who are involved. In this regard, medical practitioners too are challenged to be aware that they have a social justice obligation for ensuring that their personal aspirations of migration are balanced against the need of providing care where it is needed most. Individual medical practitioners are challenged to factor in consideration of social obligations when migrating or when receiving payments for their services in specific areas that can arguably be seen as above reasonable levels. At the same time individual developed countries need to demonstrate evidence of such thinking in their medical workforce planning strategies.

The discussion of the ethics of migration highlights that in addition to the traditional methods of forecasting workforce needs strategies aimed at ethically managing patterns of international medical migration are part of the bigger picture. The discussion also challenges workforce planners in that they have a special role in the achievement of social justice through proactive workforce planning efforts that lead to adequacy of the medical workforce. Social justice in this sense is viewed not only in terms of workforce adequacy but through ensuring that the laws or regulations are not in contrast with the personal freedoms of medical practitioners to migrate. Medical practitioners too have a social justice obligation in terms of ensuring that their personal aspirations of migration are balanced against the need of providing care where it is required most. The crucial questions that can be poised as frameworks for ethical thinking about this issue are around clarifying the responsibilities of medical practitioners to their profession and to their countries of training as well as resolving conflicts between national interests and goals and personal aspirations of migrating medical practitioners. The questions above logically lead to asking about what entities in different states have the leverage and strategic advantage to deal with the migration of medical practitioners. While these illustrative questions are given to promote an ethical response to the migration of medical practitioners between New Zealand and Australia they can also be relevant to other related migration scenarios in the world.

### *Conclusion.*

It is here argued that the direct movement of medical practitioners from New Zealand to Australia does not in itself raise ethical issues, as the two countries are both developed countries. However, there may be issues about the indirect migration of medical practitioners from resource poor countries through New Zealand to Australia. In this respect there may be some similarities between the ethics of migration from resource poor countries to New Zealand and from New Zealand to Australia. The strength of the idea of examination of issues of global justice and issues of individual justice together is important as it leads one to argue that both outside forces and individual medical practitioners themselves should be factored in workforce planning efforts. In addition to using ethical theoretical frameworks to comprehend the trans-Tasman medical migration, it is also important to add other perspectives to the inquiry. It is valuable to include the views of medical workforce planning stakeholders and the medical practitioners themselves. The next chapter therefore details the methodology of obtaining the perspectives of medical practitioners and related stakeholders.

# Chapter 5: Methodology

## Introduction

This chapter will introduce and defend the use of a qualitative mixed methods case study as a methodology for this research. This will be followed by a discussion of the survey and in-depth interview research methods that were used in this study. Thereafter, a description of how the survey questionnaires were disseminated and how the in-depth interviews were conducted will follow. The chapter then concludes by defending the integrity of the research and its ethical appropriateness.

### 5.1 Methodology: A Qualitative Mixed Method Case Study

This research utilises a qualitative mixed methods case study methodology which is adopted from an embedded case study methodology (Gerring, 2004; Yin, 1994) utilising mixed methods with more emphasis given to the qualitative paradigm. Christensen and Johnson (2004) call such a method a qualitative dominant mixed method while Johnson, Onwuegbuzie, and Turner (2007) call it a qualitative mixed method. Hence, the latter is adopted to call this methodology a qualitative mixed method case study. Figure 6 shows a diagrammatical representation, with my highlighting, of where this methodology fits in the continuum.

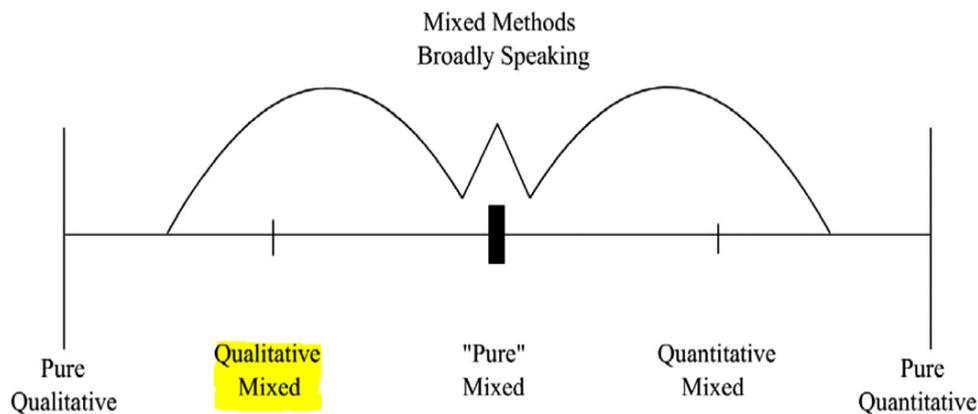


Figure 6. Graphic showing qualitative mixed methods in the continuum of mixed methods.

Adapted from (Johnson et al., 2007) [My highlighting].

Before defining what is meant by qualitative mixed method it will be useful to first define what a case study is. A case study is best defined as an in-depth study of a single unit or a relatively bounded phenomenon within its real-life context where the scholar's aim is to elucidate features of a larger class of similar phenomena (Gerring, 2004; Yin,

1994). The word ‘case study’ as used in this research is applied in two senses; firstly, ‘case study of the state of the medical workforce in New Zealand’ and secondly; in the sense of ‘the case study of an issue or phenomenon; which in this research, is the migration of medical practitioners from New Zealand to Australia. Therefore in this research, the meaning of case study is that the researcher investigates what Gerring (2004) refers to as a single ‘phenomenon’, or ‘an instance/example’. Ambiguity is thus acknowledged in this way of seeing a case as both a phenomenon and an example. However, Gerring (2004) suggests general criteria that an ‘example’ should meet in order for it to be taken as a case to be studied. Hence, an example phenomenon can be taken as a case to be studied as long as it meets ‘the significant case’ or ‘the special case’ criteria. Particularly relevant to this study, New Zealand meets the ‘significant’ or ‘special’ criterion because it is known to stand out among competing English-speaking countries as a high importer and a high exporter of medical practitioners (Simoens & Hurst, 2006; Zurn & Dumont, 2008).

According to proponents of case studies such as Yin (1994), after defining a case to be studied, researchers utilising this methodology should then define the unit of analysis, the boundaries, the type of case study and the intended knowledge to be generated from the case study. This process follows below.

### **5.1.1 Defining the unit of analysis and boundaries of the case.**

Within this study, the selected unit of analysis is the New Zealand medical workforce and its migration to Australia. When the main case study unit has some associated units of analysis (Scholz & Tietje, 2002) these are called embedded units of analysis. In this study, the embedded units of analysis were firstly, medical practitioners and key workforce experts in New Zealand. The second embedded unit of analysis was that of medical practitioners who have left New Zealand for Australia. These are summarised as follows:

- Embedded unit of analysis 1: medical practitioners in New Zealand and selected key policy workforce experts
- Embedded unit of analysis 2: medical practitioners who migrated to Australia

Yin (1994) further notes that a unit connotes a spatially bounded phenomenon such as a country observed at a single point in time or over some delimited period of time. More suggestions on how to bind a case therefore include: (a) by time and place (Creswell,

2003); (b) time and activity (R. E. Stake, 1994); and (c) by definition and context (Miles & Huberman, 1994). This study therefore adopted the approach of binding the case by place or geographical boundary, time, and context. The geographical boundary covered is that of New Zealand and Australia being viewed as one regional area. As has been stated earlier regarding the view of New Zealand and Australia as one regional area is not new in migration literature as scholars such as Poot (1995) have already advocated such a perspective.

Furthermore on the boundaries, Yin (2004) states that there is a need to define specific time boundaries in order to specify the beginning and end of the case. Accordingly, for this case, the time period covered is 1990 onwards as this is the time when health reforms started in New Zealand (Cumming, 1998; Zurn & Dumont, 2008). This justifies the reason why a detailed historical context of migration into New Zealand and that of the dynamics of the medical workforce in New Zealand has been given to periods stretching from outside the main boundary of 1990 to present. Doing so was a way of acknowledging that what is happening currently in the medical workforce is a product of the past. The delineation of the boundaries of the case can also be in terms of the data collection parameters (Yin, 1994). In this case these parameters will include medical practitioners who migrated to Australia and those who are still working in New Zealand, as well as the key workforce experts in New Zealand.

It is apparent that there may be some issues in understanding the spatial delineation of the case being studied. However, Gerring (2004), the proponent of this methodology, acknowledges that a case study event or an entity may be less well defined than the conventional case of a single individual. Moreover, on the periphery of the phenomenon, other scholars have acknowledged that the boundaries between the phenomenon and the context are sometimes not clearly evident (Carpeso, 2012).

### **5.1.2 Determining the type of case study.**

The type of case study will be determined using the criteria suggested by Stake (1995), who uses three terms to differentiate the types of case studies: intrinsic, instrumental, and collective. This research fits with the two earlier types. According to Stake (2005), if one is interested in a unique situation, this will be an intrinsic case study. This simply means that one has an intrinsic interest in the subject and they are aware that the results have limited transferability. If the intent is to gain insight and understanding of a particular situation or phenomenon, then Stake (2005) would suggest that one uses an

instrumental case study to gain understanding (Baxter & Jack, 2008). It is ‘instrumental’ because the case of the trans-Tasman medical practitioner movements will be examined not only for itself but to provide insight into the issue of global dynamics of physicians being examined. In this type of case study, the case is studied because it represents other cases and therefore illustrates a particular trait or problem. In other words, the case is studied because it is of interest itself, although other researchers may extend this research as a starting point in their attempt to understanding other similar phenomenon (Miriam, 1998; R. E. Stake, 1994).

Another way to determine the type of case study being used is to clarify the purpose of conducting it. The case study method can be employed for such purposes as description, exploration, prescription, and theory building (Yin, 1994). However, Gerring (2004) emphasises that case studies are usually employed as exploratory studies. This study is at the level where the goal is to develop propositional ideas that could be used for further inquiry. Case studies are not meant for research aimed at statistical generalisation (Yin, 1994). However, analytical generalisation will be made and this refers to the generalisation from empirical observations to theory and not a population (Yin, 1994).

### **5.1.3 Ontology and epistemology.**

Having defined the case study and given the intent and the boundaries, it is necessary to explain the paradigm of this methodology by looking at issues of ontology and epistemology. Ontology refers to different assumptions about the nature of knowledge, while epistemology pertains to the means of generating it (Crotty, 1998; Grant & Giddings, 2002). It is vital to make the difference between ontology and epistemology clear, as these determine the appropriate means of generating methods in this study. Both the theorists informing this study, Gerring (2004) and Yin (1994), situate the case study in the constructivist paradigm. In terms of ontology, constructivists claim that truth is relative and that it is dependent on one’s perspective. Constructivism is built upon the premise of a social reality (Baxter & Jack, 2008) and hence in terms of epistemology it emphasises studying phenomena in a holistic way in their natural setting. Therefore, although this research utilises mixed methods, qualitative methods are given more dominance as will be described later. Having a qualitative dominance in a case study ensures that rich descriptions of such a phenomenon, event, organisation, or programme are given value and attention in a holistic fashion (Stake, 1995; Yin, 1994), and hence the compatibility of ontology and epistemology in this research. For

example, since this research has its ontological basis in constructivism, medical practitioners studied here are not isolated from their own unique historical, physical, social and economic context. Consequently, a thick description of the background of migration has been given in the introductory chapters.

Although the paradigm used in this research stresses the importance of subjective human creation of meaning, it does not reject the positivist notion of objective reality which is investigated through quantitative methods. The assumptions of a quantitative paradigm as used in this research are that problems can be defined as *a priori* by being operationalised into variables that can be quantified. Such data is analysed by statistical means to provide patterns, trends and underlying dimensions in the data which cannot be achieved in a similar way when undertaking qualitative analysis (Bazeley, 2004).

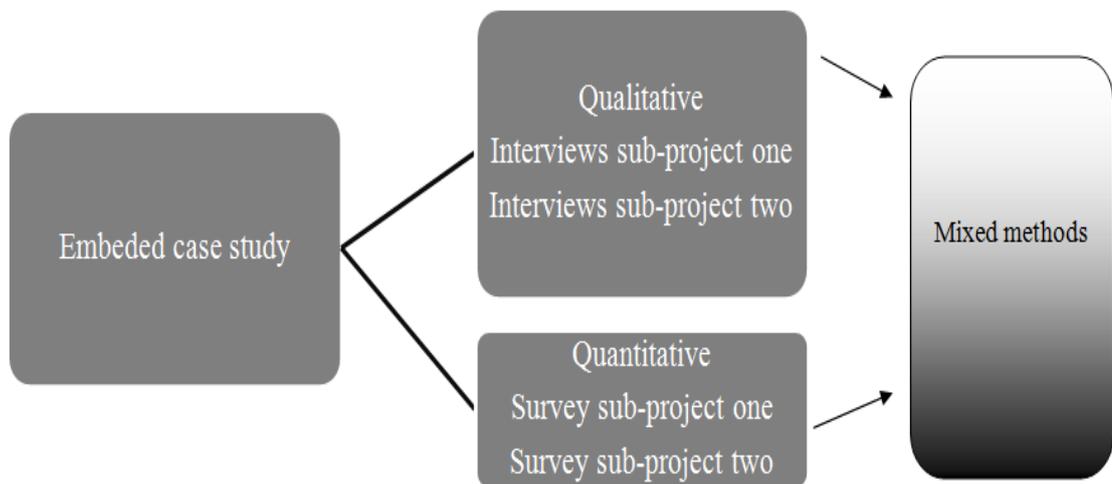
### ***The why and how of the mixed methods.***

This case study employs both qualitative and quantitative methods as a way of gathering data. Therefore, it is informed by some elements of pragmatic philosophy which means using an approach that works the best in a real world situation (Johnson et al., 2007). Pragmatism allows the use of methods that work and are seen as useful regardless of any paradigmatic assumptions. “The rationale for this approach is that the quantitative data and results provide a general picture... [while] more analysis, specifically through qualitative data, is needed to refine, extend, and explain the general picture” (Creswell, 2005, p. 515). Moreover, in the migration literature pertinent to this research, Tammaru and Sjoberg (1999) argue that migration studies should employ mixed methods. They suggest this in cases where qualitative approaches will help to understand the motives that migrants can articulate and quantitative approaches can capture motives that are influenced by tacit knowledge; that is, the type of knowledge that migrants cannot explain.

Scholars (Christensen & Johnson, 2004) have specifically called for the need to clarify whether the purpose of mixing methods was for triangulation or development. The former term means seeking convergence of results from different methods and the latter means using one method to help develop the other method. As has been indicated, this research is qualitative dominant. The purpose of mixing methods was for development in the sense of using the quantitative results to add to what has already been found in qualitative interviews. Creswell and Plano Clark (2007) call this the embedded design, because one data set (quantitative in this research) provides a supportive secondary role

to the frame of a main data set (qualitative in this research). According to De Lisle (2011) this embedded category has a qualitative dominant design, in which emphasis is placed on the qualitative and the constructivist-interpretive mental model that governs it.

According to Bazeley (2004), when claiming to be utilising mixed methods, it is also important to clarify what is being mixed and how it is being mixed. In this research, the methodology is a qualitative embedded case study and within this methodology, mixed methods are employed at the data gathering stage in a concurrent fashion. According to (2007) during the data analysis stage, qualitative data can play an important role by interpreting, clarifying, describing, and validating quantitative results. These methods are mixed in the sense that there were inductive (qualitative) in-depth interviews which were analysed by the related qualitative method of thematic analysis. There was use also of quantitative (deductive) methods which was in the form of survey questionnaires. These were analysed using statistical methods of descriptive analysis. Figure 7 shows how the methods were mixed.



Note. Larger size of the middle top rectangle signifies qualitative dominance  
 Figure 7. A representation of how the methods were mixed.

Christensen and Johnson (2004) stress that another key element to be clarified is the paradigm emphasis; that is, whether one method was dominant or the methods had an equal status. Indeed Morse (2003) indicated that in mixed methods research either a qualitative or quantitative core component can direct the theoretical drive. In this present research the qualitative component directed the theoretical drive, hence qualitative mixed method. It is therefore stated here that since the methodology was

underpinned by constructivist thinking which is associated more with the qualitative paradigm the methods of carrying out the research were mixed with the qualitative methods being given more weight. Figure 8 shows a representation of the fact that qualitative methods were given more weight as can be seen by the cases of letters in the highlighted selection while Figure 8 shows where the qualitative mixed method fits in the continuum.

		Time Order Decision	
		Concurrent	Sequential
Paradigm Emphasis Decision	Equal Status	QUAL + QUAN	QUAL → QUAN QUAN → QUAL
	Dominant Status	QUAL + qual	QUAL → quan qual → QUAN
		QUAN + qual	QUAN → qual quan → QUAL

Figure 8. Qualitative dominance and time order in mixed methods of this study. Adapted from: (Christensen & Johnson, 2004) [My highlighting].

Johnson et al. (2007) have given a working definition by stating that:

Qualitative...mixed methods research is the type of mixed research in which one relies on a qualitative, constructivist.... view of the research process, while concurrently recognising that the addition of quantitative data and approaches are likely to benefit most research projects. (p. 124)

Johnson et al. (2007) further explained that the qualitative mixed method research fits qualitative researchers who believe it is important to include quantitative data approaches into their otherwise qualitative research projects.

Another key element according to Christensen and Johnson (2004) is specifying whether the methods were completed concurrently or sequentially. Figure 7 shows that in terms of time order this research was done concurrently instead of sequentially.

In terms of stages where the mixing occurs in this research the mixing occurred at the technique level i.e. at the data collection and data analysis stages.

Having defined what a qualitative mixed method is, it will be useful to define the survey and interview methods of data gathering, which is presented in the following section. This section will also describe the sampling techniques employed in this research.

#### **5.1.4 The survey method.**

In the traditional positivistic paradigm, surveys have been defined as methods where data for or from a large number of organisations are collected through methods such as mail questionnaires, telephone interviews, or from published statistics, and these data are subjected to statistical analysis and quantitative interpretations. In such cases, the target sample is supposed to be representative of a larger population, so that inferences and generalisations can be made about that population. It becomes therefore important to obtain a high response rate from administered surveys to reduce bias due to non-response (Gable, 1994).

However in this research, the survey employed is framed in a qualitative paradigm. Hence, surveys in this case are defined as tools for collecting information through mail and the internet from targeted participants in order to obtain vital information on the beliefs, patterns, and attitudes of the participants surrounding the phenomena being investigated (Sprague, Quigley, & Bhandari, 2009). Such surveys framed in a qualitative paradigm do not aim at statistical generalisations as the main objective is gaining understanding of issues. The sampling strategies tended not to be representative of the target population and therefore statistical inference is not possible as this would be questionable.

The questionnaire survey tool was used for both New Zealand and Australian participants. The questions used were developed from an initial literature review based on similar previous studies examining the reasons why medical practitioners leave their countries of first medical qualifications (Akl et al., 2008; Astor et al., 2005; Morton et al., 2008). The questionnaire for the first group of participants who were medical practitioners in New Zealand and selected workforce experts, addressed causes of migration, policy perceptions about managing the 'brain drain' phenomenon and possible strategies for minimising its consequences (Appendix E). The format of this questionnaire and the contents were adopted mainly from Astor et al. (2005). For this reason permission was sought from the corresponding author Reidar K. Lie as seen in Appendix J-copy right requests. However, the questions were modified to suit the New Zealand context. Some questions were excluded mainly because they applied to

situations in developing countries as can be seen in Appendix K. This questionnaire had different questions from the second questionnaire for medical practitioners who migrated to Australia (Appendix F) because it only focused on reasons for migration and ways of managing the migration without dwelling much on policy as in the first questionnaire. Hence, those questionnaires did not lend themselves to an item by item comparison. The surveys were followed by in-depth interviews of interested participants sampled from the participants who completed the questionnaire.

### **5.1.5 Sampling strategies.**

The sampling strategies employed were convenience sampling and purposive sampling. The rationale for choosing these sampling strategies is provided below.

#### ***Convenience sampling.***

The methods of sampling in both sample groups in New Zealand and in Australia tended to be of a convenience sampling type. This involves drawing samples that are both easily accessible, with individuals willing to participate in a study (Teddlie & Yu, 2007). The fact that the aim of this strategy ‘captures’ volunteers lends itself to criticism that it could be biased. However in this study, the researcher was careful to target specific groups of participants presumed to be have important knowledge.

#### ***Purposive sampling.***

Purposive and convenience sampling were used for both the survey method and in-depth interviews. Purposive sampling was used in both questionnaires where key workforce experts in New Zealand and medical practitioners who migrated to Australia were targeted. Purposive sampling is defined as selecting units which can be individuals, groups of individuals or a setting based on specific purposes associated with answering a research study’s questions (Teddlie & Yu, 2007). Purposive sampling can also be defined as a type of sampling in which, ‘‘particular settings, persons, or events are deliberately selected for the important information they can provide that cannot be gotten as well from other choices’’ (Maxwell, 1997, p. 87). The key characteristic of this method of sampling is that it is of a qualitative non-probability type which is of special relevance to data analysis with conclusions to be drawn from the research (Teddlie & Yu, 2007). It is claimed that in this type of sampling, the researcher’s knowledge of the population must guide the sampling process. Another characteristic of this sampling strategy is that individuals deemed most appropriate for the study are selected to meet the needs of the research. The assumption is that good

‘judgement’ on the part of the researcher would help select ‘suitable’ participants (Tansey, 2007). The advantage was that the researcher had control over the selection process and hence inclusion of important and relevant actors. This leads to testimony that data were collected from the central players involved. In such circumstances, the goal is being prudent in the selection process to reduce randomness as much as possible. The reason for this is that random sampling would be a hindrance rather than a help as the most important actors of interest may be excluded by chance. The disadvantages were mainly greater scope for selection bias, as outlined earlier, and the limited potential to generalise from the sample to the wider population.

The two sections below will describe the procedures that were followed to gather data from two sample groups. The first sample group comprised medical practitioners in New Zealand and selected key policy workforce experts. The second sample group comprised medical practitioners who migrated to Australia.

## **5.2 Data Collection Sub-Project One: Sample of New Zealand Medical Practitioners and Selected Workforce Experts**

Part one comprised medical practitioners in New Zealand and selected workforce experts (the workforce experts). Medical practitioners included anyone registered to practice medicine in any registration scope as long as they were still residing in New Zealand. Workforce experts were loosely defined as those who have demonstrated knowledge to have input in workforce planning at the national level in New Zealand, either through research or delegated powers from a government agency. These included policy makers, researchers, employer representatives and politicians.

### **5.2.1 Piloting the questionnaire.**

The questionnaire for medical practitioners in New Zealand and selected key policy workforce experts was pilot tested in a small Primary Health Organisation (PHO) with a total of 30 medical practitioners and 11 management staff. Six of the thirty medical practitioners completed the questionnaire and also provided feedback about questionnaire design. Five of the 11 management staff also responded and provided feedback on the questionnaire. Among a total of 11 pilot participants, all except two chose the online questionnaire.

As suggested by Leece et al. (2004), the researcher recorded the time associated with development and implementation of the mail and internet-based surveys to assess the feasibility of each method. The pilot study indicated that the response rate on hard copy

questionnaires was very low and also slow. On the other hand, the response rate on online questionnaires was very quick; from instant to 48 hours; slowing down as the time progressed. Table 18 shows the perceived efficiency of the dissemination methods in the pilot study of a total of 41 participants.

Table 18  
*Perceived Efficiency of Questionnaire Dissemination Modes*

	Methods of questionnaire dissemination		
	Hardcopy questionnaires	Link in e-newsletters	Emails
Response rate	Low	High	Very high
Time taken to respond	Months	Instant to 2 days	Instant to 2 days

The feedback of the pilot study was incorporated into the final version of the questionnaire which was then disseminated to participants accordingly.

### **5.2.2 Phase 1 of data collection: Volunteer and purposive sampling.**

Volunteer sampling meant that eligible participants were invited through web-based solicitation methods such as emails and newsletter advertisements in places where each category of participants was likely to be found (e.g., hospitals and practice settings for medical practitioners). Purposive sampling was used in selecting workforce experts by inviting them directly according to their known interest in medical workforce issues. These participants completed one generic questionnaire as shown in Appendix E: Questionnaire for medical practitioners in New Zealand and selected workforce experts.

Participants were requested to choose from different versions of questionnaires, which were internet and a paper version. These formats were similar and had identical content, except for the obvious difference in versions. In this research it was found that web-based strategies tended to be more effective than hard copy modes, as can be seen in Table 18, although other scholars (VanGeest, Johnson, & Welch, 2007) found that postal strategies were generally more successful than web-based approaches. The differences could be due to significant increases in the use of the internet between the time of their study and the time of this study.

#### ***Strategies adopted to maximise response rates.***

Strategies to maximise response rates were adopted from Edwards et al. (2002) and these were in five broad categories. The first was the appearance of the modes of survey. Both the online and the mail surveys had the university logos in colour font and

the envelopes also had a university logo in colour (Edwards et al., 2002). Another strategy to maximise responses was through reminders. One reminder email was sent to non-respondents and a second reminder was in the form of a different mode mainly by telephone. Where telephones were not available a letter was sent. Where the respondents sought clarification, the researcher attempted to provide a response as immediate as was possible.

### ***Postal questionnaires.***

In the postal mode, 50 self-addressed envelopes were sent marked with a business (university) logo. The next batch of 20 letters was sent utilising the cheapest available version of courier envelopes. The non-signature courier envelopes were selected for ethical reasons of trying not to exaggerate the importance of the contents. It was also attempting to make the questionnaires not override other priorities that the medical practitioners have in relation to urgent patient health matters. Reminders were sent to non-respondents using ordinary envelopes with business logos in order to improve face validity. The response times were noted down. Of all the postal mail sent, the return turnaround was long. The first letter was received after three weeks and another two followed after a month. Hence, there were a total of 3 responses out of 75 letters. The postal mode was therefore discontinued in the first two months for the reasons of inefficiency.

On the other hand, the email/web-based strategy achieved more returns: 25 responses within between two minutes and two days as shown in Table 18. The email/web-based was adopted as it achieved more responses than the postal method. Discontinuing the postal questionnaire in this manner is justified as costs in sending letters were involved while there were little or no returns.

### ***Approaching organisations for participants.***

In contacting organisations, the first step was to seek permission to access participants through representative organisations that hold databases of medical practitioners with different profiles. These included health authorities, medical colleges and individual health bodies. The organisations approached are listed in Table 19.

Table 19  
*Organisations Approached and Number of Responses*

	<b>Number of organisations approached</b>	<b>Total approved</b>	<b>Number of participants</b>
Medical Colleges	6	0	0
Medical associations/ Authorities	3	0	0
DHBs	8	5	79
Private Practices	10	4	12
Medical schools	2	Only individuals volunteered	
<b>Total</b>			<b>107</b>

*Note.* Response rates could not be calculated because DHBs sent email to doctors in specific departments.

The majority of organisations approached already had clear-cut procedures for researchers to follow when requesting permission to access participants. For ethical reasons, the approached organisations will not be named otherwise there will be a question of putting those organisations not participating into a category of ‘declined’, which is in conflict with the principle of voluntary participation, as will be discussed in sections that follow. The responses of organisations ranged from acceptance to issues that led the researcher not to pursue the requests as can be seen in Table 20.

Table 20  
*Summary of Responses from Organisations*

<b>Organisation</b>	<b>Response summary</b>
1	Approved
2	Approves only through ethics committee that sits once a year and the date has already passed
3	Approved
4	Approved but suggested impracticable dissemination strategy
5	No response at all
6	Approved
7	Approved
8	No response at all
9	Communication mix up
10	Pending until the ethics cut of date of data collection
11	Approved
12	Approved
13	Approved
<b>Total approvals</b>	<b>7</b>

### 5.2.3 Phase 2: Purposive sampling of medical practitioners.

The second phase was meant to fill gaps of the first sampling method (the volunteer sampling method). Gaps were identified in the data from the volunteer sample and these gaps were mainly in junior medical practitioners and workforce experts. To ensure rich and varied data, purposive sampling was carried out to target medical practitioners as follows: salaried medical practitioners and independent medical practitioners, rural, urban and semi-urban medical practitioners, the junior medical workforce and the senior medical workforce as well as private hospitals and public hospitals as shown in Table 22. There was also a deliberate effort made to sample from a cross-section of specialties.

Table 21  
*Sampling across Settings in Medicine*

<b>Sample target</b>	<b>Organizations targeted</b>
Rural areas	DHBs
Independent medical practitioners	General practice networks in selected regions and use of publicly available contact detail
Registrars/ house officers	Public and private hospitals
Fellows/specialists	Colleges of medicine

### 5.2.4 Phase 3: Purposive sampling of key workforce experts.

As has been said in the section on sampling strategies, purposive sampling was carried out because the researcher had in mind the people assumed to be knowledgeable about the subject. The technique was used to reach medical practitioner employers and key workforce experts in research, policy making and political portfolios. Employers included health workforce development teams as well as management teams.

Organisations where the above participants could be found were also approached to seek access to participants as an initial step. However, there was much fear among different organisations, as most of them indicated that they were concerned that the opinions of these individuals might be misconstrued for organisational opinions. The writer therefore used publicly available contact details to request participation. A total of 20 individuals were identified through their known interest in health workforce issues. Such interest in workforce issues was gauged by either regular commentaries in the print and electronic media or in journal articles. Requests for participation were then sent to them. Ten workforce experts agreed to complete the online survey only, while six voluntarily agreed to do in-depth interviews only. Among these were six politicians,

both in the opposition parties and the ruling government, with portfolios either in health or in immigration. They were approached through emails, followed up by a reminder after three weeks through hard copy official envelopes. Two politicians with health and immigration portfolios responded to participate in the online survey and answer open ended texts, while one agreed to do an in-depth interview as well.

### 5.2.5 The in-depth interviews.

The in-depth interviews were conducted either by telephone, or face to face at venues agreed between the researcher and the participants. Of the 20 interviews conducted, 14 were conducted by telephone while the other six were conducted face to face. These participants included 15 medical practitioners and six workforce experts. Of the 15 medical practitioners, only four had also participated in the online survey. The total number of participants is summarised in Table 24. All workforce experts who participated in an interview had not participated in the survey questionnaire. The in-depth interviews ranged from 30 minutes to one hour and this was considered sufficient time, considering the busy schedules of medical practitioners.

Table 22  
*Summary of Survey and Interview only Participants*

Category	Participants		Total
	Survey only	Interview only	
Medical practitioners	104	11	115
Workforce experts	10	6	16
Total	114	16	131

### *Ceasing recruitment.*

The process of soliciting for responses occurred between August 2010 and August 2011. Ceasing recruitment was guided by the principle of allowing for rich, varied data but with noticeable ‘theoretical saturation.’ Theoretical saturation is achieved when similar themes appear over and over again, with limited new concepts emerging in subsequent focus groups (Braun & Clarke, 2006). Recruitment therefore ceased when there was evidence of theoretical saturation in the qualitative data and also when there was no evidence of patterns in the quantitative responses.

### **5.3 Data Collection Part Two: Medical Practitioners who Migrated to Australia**

This sample consisted of participants who were medical practitioners who left New Zealand between 1990 and the time when the questionnaire was disseminated. The medical practitioners who go to work in Australia only for weekend locum work were excluded, as were those who worked in New Zealand on a sponsored overseas experience or on a specific research mission. The Australian sample was not taken as a comparison sample but rather to get perspectives from the medical practitioners who have actually moved.

#### **5.3.1 Piloting the questionnaire.**

A pilot study was done by contacting seven individual medical practitioners in the Northern Territory whose addresses were publicly available. These medical practitioners were provided with hard copy questionnaires and online questionnaires. Of the total of seven medical practitioners who responded, only one of them utilised a hard copy questionnaire, while ten of them preferred a web-based version similar to the one shown in Appendix H. The medical practitioners were also asked to give general feedback about the questionnaire. The feedback included the need to collapse and combine some questions that appeared to be similar, as well as the need to remove immigration-related questions for ethical reasons. Such feedback was incorporated into the final versions of the questionnaire before dissemination.

#### **5.3.2 Sampling strategy.**

The sampling strategy aimed to achieve a mix of medical practitioners from different specialties and of different seniority levels in order to achieve a diversity of opinions. Different organisations, were therefore contacted to seek permission to distribute the questionnaires to medical practitioners who either had basic medical qualifications from New Zealand or had basic medical qualifications from elsewhere but had practiced in New Zealand under any registration scope.

In sampling, it would have been useful to have the actual numbers of New Zealand medical practitioners practicing in Australia in mind, but lack of an accessible databases with accurate information made this impossible. However, sampling was done bearing in mind that, based on figures from Health Workforce Australia (2013) medical practitioners per state range from 73 in the Australian Capital Territory (ACT) territory to 588 in the New South Wales (NSW) as shown in *Table 3*.

### **5.3.3 Phase 1: Volunteer sampling.**

The Australian Health Practitioner Regulation Agency (AHPRA) was approached in November 2010 as a potential way of accessing participants who are medical practitioners who once practiced in New Zealand. It was initially anticipated that should this way of accessing information be successful, then the problem of having to contact medical practitioners and organisations individually would be solved. Unfortunately, during this period the AHPRA was still undergoing structural changes and their response indicated that processes had not been put in place to address my request. The second attempt was to approach medical practitioner representative organisations in different states. Of the 17 organisations approached, nine responded with approval (one approved upon receipt of clarification). In summary, outcomes of seeking permission included no responses at all; requirements for additional ethics approval; and, in one case, requirements that the researcher advertise. However, the quotes for advertising were beyond the budget of the research. One of these organisations indicated that a condition for agreeing to the request was that one of the members of the organisation had to be a co-author. Other responses were that they allowed commissioned reports but not doctoral studies.

Table 23  
*Response Summaries from Organizations*

<b>Organization</b>	<b>Response summary</b>
1	Allows only if one of the researchers is a member
2	Approves only through ethics committee that sits once a year and the date has already passed
3	Approved
4	Approved
5	No response at all
6	Quoted costs of up to \$6000 to place an advertisement
7	Approved
8	Allows only commissioned researchers
9	Approved
10	Approved
11	Co-authorship must be guaranteed
12	Approved
13	No response at all
14	Approved
15	Approved
16	Communication mix up
17	Approved
<b>Total approved 9</b>	

#### **5.3.4 Phase 2: Purposive sampling strategy.**

On assessing gaps in the initial volunteer sample, the writer found that there were gaps in capturing opinions of medical practitioners in public hospitals and also there was a need for a variety of specialties. Hospitals were then targeted for the purpose of filling this gap. The researcher noticed that each hospital had its own way of dealing with requests for participants ranging from communication officers, public relations managers, human resources officers, and CEO approvals to ethics committee approvals. Medical colleges were also approached and some of these approved after an internal ethics approval process. The responses from these are summarised in Table 24.

#### ***Response rates and questionnaire turnaround.***

Finally, a total of 84 participants were recruited and 64 of them completed the survey questionnaire. Among the 64 who completed the survey, five of these also participated in the telephone open-ended interviews. The telephone interviews therefore had 25 participants, made up of 20 who participated in the interviews only and the five who

participated in both the questionnaire and the telephone open-ended interviews. The response rates as shown in Table 24, ranging from 0% to 75%, dependent on the organisation and on the mode of questionnaire delivery. The response rate for emails ranged from 0.25% to 75%, while those for e-newsletters ranged from 10% to 50%. The lowest response rates were those for the questionnaires which ranged from 0% to 5%.

Table 24  
*Response Rates per Organisation*

<b>Organisation</b>	<b>Number of potential participants</b>	<b>Number of responses</b>	<b>Response rate</b>	<b>Method of approach</b>
1	8	4	50%	E-newsletter
2	24	18	75%	E-mail
3	80	2	0.25%	Courier envelopes
4	4	3	75%	E-mail
5	3	0	0%	Courier envelopes
7	36	22	61%	E-mail with link
9	5	2	40%	E-newsletter
12	2	0	0%	Courier envelopes
14	21	17	81%	E-mail with link
15	6	2	33%	E-newsletter
17	11	3	27%	E-newsletter
<b>Total</b>	<b>260</b>	<b>84</b>	<b>32%</b>	

*Note.* Table excludes snowball sampled participants.

It was noted that emails and newsletters tended to have a fast and high response. This ranged from immediate to four days. Postal questionnaires were labour intensive and tended to have a low response rate and response time, ranging from three weeks to 3 months.

Figure 9 shows that 25 participants took part in the interview while 64 participants took part in the survey and the stated numbers included 4 participants who took part in both the survey and the interview.

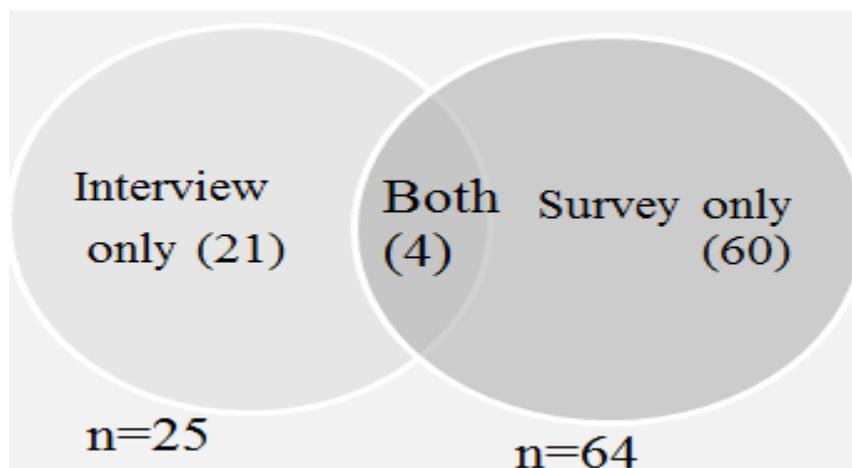


Figure 9. Venn diagram showing the spread of participants between interviews and the survey questionnaire

## 5.4 Data Analysis

Analysis of the in-depth interviews of both the New Zealand participants and the Australian participants was conducted using the same theory of thematic analysis. The process was aided by the use of nVivo software. On the other hand, the analysis of quantitative data from the survey was carried out using some elements of descriptive statistics. SPSS 15.0 software was utilised for analysis; while Excel spread sheets were used for data management. An in-depth discussion of the process of thematic analysis follows below.

### 5.4.1 Analysis of qualitative data.

The qualitative results were analysed using the thematic analysis method as described by Braun and Clarke (2006). It is therefore important to begin by defining what thematic analysis is and explaining the processes of analysing results using this method.

According to Braun and Clarke (2006), thematic analysis is a method for identifying, analysing and reporting patterns of themes within data by minimally organising and describing the data set in rich detail. In terms of ontological position, thematic analysis as described by Braun and Clarke (2006) is not wedded to any pre-existing theoretical framework. Hence it is compatible with this research driven by the philosophy of pragmatism. This also means that it does not require the detailed theoretical and technical knowledge of approaches such as grounded theory and discourse analysis. Thus, it has flexibility for use in a mixed method study such as this one.

Thematic analysis involves the process of becoming familiar with data and then sifting through such data to collate it into meaningful groups called codes. Codes are said to be “the most basic segment, or element, of the raw data or information that can be assessed in a meaningful way regarding the phenomenon” (Boyatzis, 1998, p. 63). The codes identify a feature of the data (semantic content or latent) that appears interesting to the analyst.

A level above a code is called a theme, which is a unit of analysis that is usually broader than codes and occurs at the stage of interpretative analysis of the data in relation to arguments about the phenomenon being examined (Boyatzis, 1998). In this research, the writer also had another level called a subtheme, which is simply a theme-within-a-theme. According to the method adopted in this writing, themes were not dependent on quantifiable measures of recurrence but rather on whether they captured something important in relation to the topic of study. It is also important to mention that, since this research involved qualitative interviews of two sub-projects, an adaptation of Braun and Clarke’s (2006) thematic analysis was made by adding another phase; the phase of combining themes from two sub-projects to form ‘major themes’. These are shown in Table 46 in Chapter 10.

#### *Use of nVivo software in thematic analysis.*

The researcher utilised the nVivo software because of the large volume of data that was handled and also because the software helps in analysing data rigorously. nVivo software is an analysis product that enables the researcher to associate codes with volumes of text and visual materials. It also allows the researcher to search these codes for patterns; and to construct formal structure or develop relationships (Ozkan, 2004). Computer assisted software analysis can help in providing a structure for writing and storing memos, thereby speeding up the process. Such methods also ensure conceptual thinking about emerging themes and complexity in forming relationships. This is enabled by providing a platform for constructing classifications of codes that reflect testable models of the themes emerging from the data (Seidel, 1991). Some scholars (Kelle, 1997; Seidel, 1991) have expressed fears that if computer-assisted tools are used the researcher loses subtle issues which can only be captured by engaging intimately with the data by manual methods (Seidel, 1991). However, the nVivo software still allows the researcher to be intimately involved with the data. This is because the researcher takes an active role by reading through and naming codes as well as by sorting and reorganising codes.

### *Phases of thematic analysis.*

In terms of process thematic analysis adopted here involved six phases as shown in Table 25. Phase one involved becoming familiar with the data, to identify the initial analytic interests and thoughts. This phase was followed by Phase two which was about generating initial codes. Phase three was a stage that re-focused the analysis at a level broader than codes, that is, translated codes into potential themes and collated relevant data extracts under potential themes. Phase four involved reviewing themes using Patton's (1990) approach of dual criteria for judging categories/themes, that is, internal homogeneity and external heterogeneity. Internal homogeneity means that data within themes should cohere together meaningfully, while external heterogeneity means that there should be clear and identifiable distinctions between themes. This process was facilitated by guiding questions as shown in Table 26.

Table 25  
*Thematic Analysis Phases*

---

<b>Thematic analysis phases</b>
Phase 1: Familiarising with data
Phase 2: Generating initial codes
Phase 3: Sorting different codes into potential themes
Phase 4: Reviewing themes for clarity, coherence and distinctiveness
Phase 5: Defining and naming themes
Phase 6: Combining themes from two sub-projects to make major themes

---

Table 26  
*Questions Guiding the Development of Themes*

---

<b>Guiding questions</b>
'What does this theme mean?'
'What are the assumptions underpinning it?'
'What are the implications of this theme?'
'What conditions are likely to have given rise to it?'
'Why do people talk about this thing in this particular way (as opposed to other ways)?' and
'What is the overall story the different themes reveal about the topic?'

---

*Note.* Adapted from Braun & Clarke (2006).

Reviewing also involved checking whether collated extracts fitted within the theme and were coherent. Phase five involved finalising the naming of themes and Phase six involved combining themes from two sub-projects and deciding on the overall story told by these major themes. This story is meant to match themes with the overall data and the research questions.

In line with the philosophical underpinning of a case study, the researcher's interest was mainly to capture, as much as possible, an extensive description of overall data. As Braun and Clark (2006) have indicated, aiming for an extensive description of data is important in exploratory research where not much has been investigated about the topic. Consequently, the aim was to understand what the participants said as a whole in addition to selecting the voices that stand out.

According to Braun and Clarke (2006), capturing as much as possible of an extensive description of data can be done by coding the entire content of the data set by inductive methods, as opposed to deductive coding that provides less rich descriptions or limited aspects of data. In the deductive process, theory from the literature review guides the researcher in looking for specific content in the data. As suggested in the literature, the researcher did review the literature initially with the aim enhancing his analysis by sensitising himself to more subtle features of data (Tuckett, 2005).

It is also important to explain some aspects of the language used by the researcher when presenting the qualitative results. Due to the qualitative nature of the paradigm in which this research was framed, the frequency of appearance of participants' utterances will not be quantified but rather will be stated in qualitative terms. For example using such phrases as "the majority" or "very few participants indicated that...". It is also important to mention the language used when referring to whether the themes were 'discovered' or 'identified'. For consistency with the experts (Braun & Clarke, 2006) of the method of analysis being employed, the researcher uses the word 'identify'. Braun and Clarke (2006) justify this by claiming that the researcher's role is active in that it involves making decisions such as identifying, selecting, editing and reporting the themes. This takes the view that themes neither emerge nor can be discovered but rather the researcher actively identifies themes, and further selects the ones that are of interest.

Having discussed how the qualitative aspect of the data was analysed it is also important to explain how the quantitative aspect of this research was analysed.

#### **5.4.2 Quantitative data analysis of Likert-type items of the New Zealand and Australian participant surveys.**

Participants answered questions (Likert-type items) related to medical workforce issues in a Likert scale, ranging from 'strongly agree' to 'strongly disagree'. The presentation of the quantitative results therefore compared how the participants were spread among

the categories which are 'agree', 'strongly agree', 'disagree' and 'strongly disagree'. The neutral category of the Likert items was the 'mixed feelings' category.

Clason and Dormody (1994) stressed that when deciding how to analyse data, it is important to clarify whether the questions were of Likert-types or were Likert scales. The difference between Likert-type items and Likert scales is that the former are single and uniquely stand-alone items that cannot be summated, while the latter are multiple questions that are used in a composite scale. On the other hand, a Likert scale is a composite of four or more Likert-type items that are combined into a single composite score during the data analysis process because what is of interest is a trait.

The questionnaires were handled and distributed through a survey tool called SurveyMonkey®. Following ceasing the sampling and distribution of the questionnaire the results were downloaded into an Excel spread sheet for cleaning. This process involved the removal of invalid cases, such as removing participants who had responded to fewer than 10 questions. The data was then uploaded into SPSS for analysis using percentages and bar charts.

#### **5.4.3 Text analysis strategy and method of achieving rigour.**

The open text responses in the quantitative questionnaire were analysed in the quantitative paradigm by counts of responses of frequently appearing words and phrases. The texts were counted manually as well as triangulated with nVivo text search query and word frequency queries in nVivo software as can be seen in the screen shot in Figure 10. According to QSR International (2013) the text query can be used to search for a word or phrase in the interview material and all the matches to the context in which it was used can be viewed. On the other hand, the word frequency query lists the most frequently occurring words in the interview material and helps to visualise the results in a tree map or cluster analysis diagram. The text search queries were done after the manual counting process. The text search query as shown below reflects the instances when the word 'money' was used as well as the other associated words that were used. This strategy allowed the inclusion of words that were relevant or exclusion of words that were not necessary for the counts.

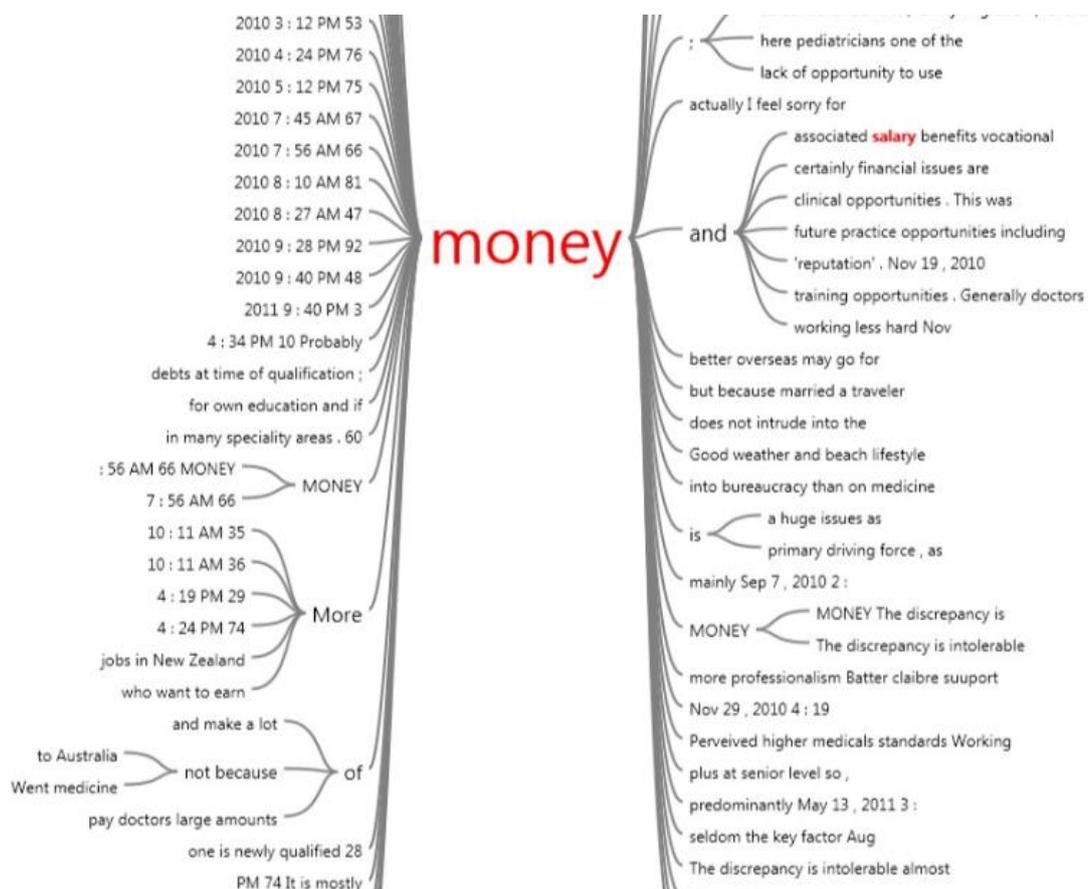


Figure 10. Text search query for the word 'money'.

#### 5.4.4 Study validation framework.

##### *Rigour of the qualitative aspect of the questionnaire.*

The rigour of research has traditionally been viewed in a positivistic paradigm by applying the constructs of validity and reliability (Giddings & Grant, 2009). This stance was brought about by the fact that qualitative research has tended to be subordinated to quantitative paradigms. However, the use of validity and reliability as validation frameworks has meant that quantitative thinking has tended to be pursued in evaluating the rigour of qualitative research (Lincoln & Guba, 1985). Such a position has resulted in questioning the rigour of qualitative research as a methodology. Researchers such as Pitts (1994) have therefore adapted these two criteria and defended them for use within the qualitative frameworks, while others such as Lincoln and Guba (1985) have proposed a different framework: trustworthiness. They proposed that trustworthiness can be achieved by fulfilling the criteria of credibility, conformability, transferability and dependability. These will be discussed below, starting with credibility.

#### *5.4.4.1.1 Credibility.*

Credibility is about truthful representation of the issue being researched and requires that findings should be congruent with the utterances of participants. This can be achieved by taking necessary steps to separate the writer's own personal assumptions about the issue being researched (Ezzy, 2002). The writer ensured this from a methods point of view. Firstly, in the interviews participants were asked open-ended questions and their utterances formed the codes from which themes were made. Where possible the participants' own words were also used to form themes. Codes developed during the analysis process were not decided prior to analysing data; they were instead induced from the data. From a post writing point of view, the writer's reflection is that indeed this process was beneficial as themes that were not anticipated were developed. Credibility was also achieved by making sure that participants' voices were reported verbatim. The results chapter was reserved for participants' voices and the judgements were reserved for the discussion chapter. The themes were also reviewed by participants and the two supervisors of this work who are experienced in qualitative research. Further credibility could have been achieved by sending transcripts to the participants. However, this was going to contradict the ethics of interviewing medical practitioners whose time is more valuably spent with our sick and vulnerable and hence their attention needs to be prioritised.

#### *5.4.4.1.2 Transferability.*

Transferability is a measure of how far the findings of the study can be transferred to other similar contexts (Polit & Hungler, 1997). As has been stated earlier on, the intent of this research was to understand the issue rather than for generalisation. The limited sample size and the uniqueness of medical practitioners in the context of New Zealand cannot be generalised to the migration scenarios of other countries. However, the outcomes of this research do offer a foundation for similar studies to be carried out with a clearly defined intent to generalise findings. Other studies could build on this work, in order to carry out research with larger samples under similar or different contexts and hence, in such instances, generalisations could be possible.

#### *5.4.4.1.3 Confirmability.*

As for confirmability, raw data was given to both supervisors regularly and when themes were arrived at, the supervisors were also involved in auditing the themes. Indeed it has been argued that to achieve confirmability, researchers must take steps to

demonstrate that findings emerge from the data and not their own predispositions (Shenton, 2004)..

#### *5.4.4.1.4 Dependability.*

Dependability was ensured by a clear description of the process, that is, the research methodology with a justification of the methods used, which hence can be called an inquiry audit (Lincoln & Guba, 1985). This has been achieved by providing a dense description of methods as well as the philosophical justification of these methods. Diagrams have also been employed to represent the thinking involved in selecting or using the methods.

#### ***Rigour of the quantitative aspects of the questionnaire.***

Discussions of rigour in the quantitative aspects of the questionnaire include issues of external validity and content validity. In terms of external validity, which is about generalising findings, it is noted here that the size of the population was too small to achieve any generalisability. Additionally, it is important to note that the statistical results generated here were mainly for the sake of polling opinions rather than making any inferences. The issue of content validity that may need discussion here relate to how questions were formulated. Content validity, with reference to question formulation, was ensured by utilising questions from previously published studies (e.g., Akl et al., 2008; Astor et al., 2005). Content validity was also achieved by piloting the questionnaire and responding to issues that were identified in the pilot. Experienced biostatisticians, as acknowledged in the prelude of the thesis, were also contacted for comments on the questionnaire.

#### **5.4.5 Ethical considerations.**

This research was granted ethical approvals both in Australia and in New Zealand, as participants resided in either of these two countries. On the Australian side, ethical approval (H3793) was granted by James Cook University Human Ethics Committee on 28 July 2010 (Appendix C). On the New Zealand side, ethical approval (10/239) was granted by the Auckland University of Technology Ethics Committee (Appendix D). The researcher demonstrated ethical rigour of the research through adherence to the five principles proposed by Tolich and Davidson (1999). These included voluntary participation, informed consent, doing no harm, and confidentiality.

### ***Do no harm.***

This research had no questions that could be perceived to cause harm to participants. The only possible harm of the research that was noted related to making recommendations that could potentially interfere with an individual medical practitioner's personal freedom to migrate. The writer upholds the individual medical practitioner's personal freedom to migrate and therefore took necessary steps to protect this in interpretations and discussing the implications of results.

### ***Voluntary participation.***

Participants were informed about the voluntary nature of taking part in this study. Participation was through self-selection, as most of the participants received the survey link either through emails or internet links. Where organisations were involved in sending the links, the organisations stated clearly that the research was being conducted by an independent outsider. They were also told that they could withdraw from the study at any stage.

### ***Informed consent and avoiding deceit.***

Participants were fully informed about the intent and the processes involved in the study. In addition to reading the information, participants were required to fill in an informed consent form, both online and in hard copies as can be seen in Appendix B. Consent to participate was sought from both survey and in-depth interviews.

### ***Confidentiality.***

The writer maintained confidentiality of information through not identifying participants by name. In New Zealand, one DHB, through its own internal ethics committee, required the writer to remove some demographic questions and this was obeyed with all questionnaires even outside that DHB. The participants were told that all information collected in this study will be stored and destroyed in accordance with the protocols of the AUT University Ethics Committee and the James Cook University Human Ethics Committee.

### ***Te Tiriti o Waitangi (The Treaty of Waitangi).***

Although this research does not involve Māori participants and does not directly make inferences from Māori data in New Zealand, it is an ethical requirement for researchers to indicate how their research may impact on Māori (Health Research Council, 2010).

As has been mentioned in the introductory chapters, Māori are indigenous people and hence while discussing issues about early migration, Māori presence prior to European arrival was acknowledged. By way of reflection, this research may impact on Māori health outcomes, as the adequacy of medical practitioners is crucial in primary health care strategy delivery. This strategy actually has its targets as alleviating diseases such as cardiovascular diseases that affect Māori at disproportionate rates (Ministry of Health, 2009). Specifically, under the Treaty of Waitangi clauses, New Zealand policy makers have an obligation to ensure that the Māori communities are adequately represented in the medical workforce. However, as things stand, in terms of workforce composition, in 2003 the Māori medical practitioner workforce was 2.7%, as compared to the fact that the Māori account for 15% of the population (Poole et al., 2009). When discussing issues of workforce adequacy in this research Māori medical workforce inadequacy has been acknowledged and discussed.

## **5.5 Limitations of the Study**

Limitations of this research include that the survey was an incomplete coverage of medical practitioners from all specialities and geographical locations. The generic nature of the questionnaire for medical practitioners and workforce experts was another limitation, as some questions may have been more relevant to one group of participants than others. Furthermore, the anonymous data collected in the survey also does not facilitate the link between the data and demographic attributes of the participants. Further on the question of the survey questionnaire a limitation was noted in the fact that participants in the New Zealand survey did not give their demographic data. The reason for lack of data as explained earlier on was that some employer organisations requested that it be removed to preserve anonymity of the participants. Although ethical considerations of respecting the wishes of participants are an integral part of the research process, it is acknowledged here that lack of demographic data might have affected the quality of conclusions drawn from the data. Limitations related to the denominators of participants sampled in both surveys are also acknowledged. Although this was not a quantitative study and also despite attempts made to give approximate numbers, such estimates were based on literature evidence and hence could not be used as a basis for calculating response rates. As has been already stated lack of denominators in both surveys was caused by unavailability of databases that have numbers of medical practitioners that met the sampling criteria. The researcher made an effort as described earlier on but failed to get statistical data about the numbers of

medical practitioners working in specific workplace settings. Such data could have helped in triangulating data available from registration authorities and grey literature as described in the background chapter.

Finally there was a limitation in relying solely on the Likert-type items gauging the level of agreement only. The questionnaire could have been enhanced by gauging both the level of agreement and the ranking items in order of importance to the participants themselves. It is therefore acknowledged that some participants could have interpreted the level of agreement questions as gauging importance of factors in question.

Despite these potential limitations, this study shows how creative strategies could be utilised, especially in situations where there are unnecessary bureaucratic hurdles to overcome in gaining access to participants.

## **5.6 Conclusion**

This chapter has given a description of the methodology and the ways by which this research was carried out: the interviews and the survey methods. The methods of analysing both the interview and the survey data have been described and justified. The chapter therefore concluded by giving a validation framework for this research. The ethical issues associated with this research were also described. The following chapter presents the results of the one of the methods of gathering data: the interviews.

## **Chapter 6: Presentation of Sub-Project One Results: Qualitative Interviews of Medical Practitioners in New Zealand and Selected Workforce Experts**

### **Introduction**

This chapter (sub-project one) will present the qualitative results of the New Zealand interviews with medical practitioners and a few selected workforce experts. This presentation of themes from the process of thematic analysis as described in Chapter 5 will mainly consist of verbatim texts of participants and very little of commentary to preserve dominance of the participant's voice (Braun & Clarke, 2006; Ezzy, 2002; Patton, 1990).

Before presenting the results there are two items to note. Firstly, it must be stated that although the word 'sic' has been used after some excerpts to inform the reader that the spelling, grammatical and formatting mistakes are attributed to the original source (the participant), in fact all excerpts were inserted in the body of this writing without alteration. The word 'sic' has only been used where the mistakes are too obvious and the reason for not using it in most instances was to avoid clutter. Secondly, the medical practitioners were put into three categories. The first category was that of medical practitioners not in speciality training or who have not yet completed speciality training (Medical Practitioner or MP). The second category was that of medical practitioners who have completed specialist training and hence are registered for specialty practice (Specialists or SP). The third category was those who attained post-training registration in the General Practice vocational scope (General Practitioner or GP).

#### **6.1.1 Demographic profile of participants.**

There were 22 participants and of these 6 also undertook the survey and hence there were 17 interview only participants. Among these 22 participants 6 were workforce experts and one of them had already completed the survey questionnaire. It is also important to mention that of the 22 participants 16 were medical practitioners and 6 had already participated in survey.

Among 16 medical practitioners 8 identified as specialists (SP), two as general practitioners (GP)-post-training and six identified as medical practitioners, either being in-training or not in a speciality training programme and hence are referred to as other

medical practitioner (MP). The key in Table 27 shows how these will be referred to in the presentation excerpts.

Table 27  
*Key to label of text excerpts*

Abbreviation	Meaning	Usage in the presentation of results
MP	Other Medical Practitioner	Any medical practitioner who has not attained registration in a vocational scope
GP	General Practitioner	Attained post-training registration in the general practice vocational scope
SP	Specialist	Any medical practitioner who has attained post-training registration in a vocational scope other than general practice

In terms of gender, 8 of the participants were female while 14 were males. The in-depth interviews ranged from 30 minutes to one hour which was considered sufficient time for busy medical practitioners.

### **6.1.2 Summary of themes.**

Participants were asked questions about their views regarding the causes of migration of their colleagues to Australia. They mentioned reasons that came under the themes of research, training, and other career aspirations; remuneration and pay packages; working conditions; management and collegial relationship factors; health system and government policy factors; lifestyle, family, social and environmental factors; and, pull factors and retention strategies. Each of these themes had a number of subthemes ranging from three to five as will be detailed in the sections that follow. Participants were also asked what could be done to manage the trans-Tasman migration phenomenon and they mentioned strategies of retention. The summary of all themes is presented in Table 28.

Table 28  
*Summary of Themes and Subthemes of Medical Practitioners' and Workforce Experts' Interviews*

<b>Theme number</b>	<b>Theme</b>	<b>Subthemes</b>
1	Research, training, and other career aspirations	Career structure Lure of opportunities in a bigger country Research aspirations Training and continued professional development
2	Remuneration and pay packages	Higher salaries Pay packages Mixed feelings about pay
3	Working conditions	Satisfactory to very good Bad to worse Comparable, favourable and improving Mixed feelings about working conditions Workload and non-clinical duties Issues specific to some specialities
4	Management and colleague relationship factors	Management issues Collegial relationships
5	Health system and government policy factors	Registration, regulation and policy issues Health system and clinical environment Clinical and technological resources Student debt
6	Lifestyle, family, social and environmental factors	Family and social factors Small cities in New Zealand vs cosmopolitan cities lifestyle in Australia Personal, lifestyle and other geographic factors
7	Pull factors and retention strategies	Promoting and acknowledging loyalty Making graduates feel appreciated Capitalising on family pull factors Sensible bonding and other strategies of promoting inertia Local and overseas recruitment strategies Remuneration strategies Competing within the means of a small population Overseas experience Training and medical education strategies Bilateral policy strategies Student debt related policies

### 6.1.3 Theme 1: Research, training and other career aspirations.

Theme one, which is about career aspirations, was about issues related to career structure, opportunities in a bigger country, research aspirations and training continued development opportunities, as shown in Figure 11. The theme was so named because all the reasons that the participants gave were related to career aspiration push factors in New Zealand and pull factors in Australia. These push and pull factors fell under the subthemes of career structure, the lure of opportunities in Australia, participants' research aspirations and the need opportunities for training and development.

Theme	Sub-themes
Research, training and other career aspirations	<ul style="list-style-type: none"><li>• Career structure</li><li>• Lure of opportunities in a bigger country</li><li>• Research aspirations</li><li>• Training and continued professional development</li></ul>

Figure 11. Theme of research, training and other career aspirations.

#### *Subtheme 1: Career structure.*

Participants reiterated the issue of career structure as a separate issue from career opportunities. Under this subtheme participants expressed concerns mainly about lack of clear career paths and lack of funding or making such careers explicit and resourced by funding.

*....perhaps most importantly the future career path [is a pull to Australia][MP]*

*Our biggest problem is lack of a career structure. Doctors are very motivated by having career goals and their achievement of such goals should be better recognised. [WE]*

*Make....career pathways e.g., for management.... careers for doctors explicit and attractive.[SP]*

*Specific career pathways can be motivating...and this are not available in New Zealand [SP]*

In the above quotes it can be seen how the participants thought that Australia offered a better career structure than New Zealand. Another item of interest is the participants' use of the words 'motivating' and 'recognition'. Recognition and motivation are terms that appear to be pointing to issues associated with job satisfaction and therefore the probable likelihood to stay with the employer. However, participants did not give

specific examples of how the Australian system offers a better career path except specifying that Australia funds academic institutions very well.

***Subtheme 2: The lure of opportunities in a bigger country***

The lure of opportunities was said to be an attraction to Australia. Participants clearly specified that this is mainly because of the larger size of the country and they described these opportunities as broad and varied. Opportunities were also said to be easily available and these included job and study opportunities.

*There are also opportunities that are not so easily available here in NZ that are available in Oz [MP]*

*....pool of opportunities jobs etc.... scope of practice, academic opportunity [SP]*

*..... Opportunities and experiences available in the bigger centres.....[SP]*

Of much interest in the participants' statements was the choice of words and the phrasing of sentences to express their meanings. For example, in the above statements it is noted that the word 'opportunities' was recurring showing some consistency in participants' utterances. Another participant called New Zealand a 'small island' as seen in the quote below.

*NZ is a very small island. One of our large Universities (Otago) is in a small town (Dunedin) with a population of 40,000. That would qualify as a rural setting in other countries. So trainees have to leave NZ to gain appropriate skills [SP]*

It might not be conventional in everyday language for New Zealand as a country to be referred to as an island. The reference to New Zealand as an Island was also prefixed with the word small probably to emphasise the proportion of the size of New Zealand in relation to Australia. Also in the above quote the participant thought that Dunedin, one of the towns in New Zealand, could be equated to a rural setting in other unspecified countries. This was probably to emphasise the scarcity of opportunities because in every day ordinary language rural areas are associated with scarcity of resources.

Other opportunities outlined were those associated with diversification of income. An example of diversification of income mentioned was working in private practice settings.

*There are far more private work opportunities in Australia too, with the promise of greater control over one's work environment and practices than any DHB can match.[SP]*

Also in the quote above one may notice that the phrase ‘...than any DHB can match...’ can be taken to signify comparison of two countries that are different by particular comparative standards.

As noted earlier, not only the availability of opportunities was mentioned by participants, but the variety and broadness of opportunities was also emphasised by them. For example:

*...opportunities for .... broader training experiences. [WE]*

*[They actually move there for a] variety of opportunities [SMO]*

*Also need to accept that need to do some work in Australia to get full range of experience [SP]*

It also seemed that participants were associating bigger countries with more opportunities. This was seen in the mention of bigger countries other than Australia such as the UK and the US.

*In Australia there is more opportunities .... (as a junior I was recommended by all my senior colleagues to go to Australia/UK/USA to obtain better experience)....[MP]*

Although UK and US were mentioned only as bigger none of the participants spoke about going to these countries. This was probably because the questions asked were specifically tailored to the trans-Tasman migration scenario.

### ***Subtheme 3: Research aspirations.***

In addition to statements about general opportunities the participants also specifically mentioned that research aspirations were some of the factors that can either pull or push them to Australia. Under this subtheme participants also mentioned issues about limited research opportunities in New Zealand-push factors. Participants indicated that their research aspirations are either missing or poorly supported and on the other hand in Australia there is more support for research endeavours-pull factors. Another important issue that was raised by participants was the relationships with academic institutions or universities which they considered as feeble in New Zealand.

*Furthermore, poorly supported research and feeble relationships with universities here make returning to do research very difficult and further undermine the job satisfaction [SP]*

*...but perhaps most importantly the future career path afforded by research opportunities and personal scientific development are generally missing outside of the research universities. [SP]*

It is important to note that the participant above linked the issues of research with job satisfaction. The question of funding for research was also raised by participants. The participants thought that in Australia research is better funded than New Zealand.

*Those thinking of an academic career are attracted by the well-funded academic institutions in Australia [MP]*

*In Australia there is superior support for research.... [MP]*

The participants raised issues of quality in research by making comparison of research opportunities in Australia and New Zealand.

*In Australia there is improved senior positions with provision to complete quality research and offer up-to-date technologies...[SP]*

The words used by participants in relationship to research opportunities which have been picked up for further analysis are ‘feeble’ and ‘poor’. Indeed these words show participants strong feelings about the research situation in New Zealand. This is in comparison with the words that were selected in reference to Australia where participants used such words as ‘complete’ ‘quality’ and ‘superior’.

#### ***Subtheme 4: Training and professional development opportunities.***

While other participants merely mentioned opportunities for CPD some participants clearly mentioned CPD and training opportunities as a major issue.

*Another major factor is the wider training opportunities overseas, which historically medical practitioners have sought[WE]*

*....access to CPD is a major issue [SP]*

*...access to professional support and CPD. [MP]*

*Also, opportunities for subspecialty and broader training experiences. [SP]*

Some issues that rose related to the manner in which training was conducted.

Participants had mixed feelings with the majority stating that it was poorly done and few indicating that it is reasonable.

*Training is often unstructured and poorly supervised. ...best way to do that is to improve training do trainees want to come be at a hospital. They will also want to stay as consultants.[SP]*

*Internship seems to be the prime time of exposure to medicine for medical graduates, as well as filter for graduates' decision regarding entering specialist's training. ....there is I think a bias towards surgical and general medicine rotations which leaves many interns ignorant of or even frightened of psychiatric pathology. [SP]*

*[MP'S] - fairly long hours, but good training and support. [MP]*

Some issues related not only to availability of training opportunities but also the manner and level of funding. It seemed that participants thought that Australia tends to be generous when compared with New Zealand.

*...vocational training opportunities and experiences ....are generously supported in Australia [GP]*

*... help with college exams happens in Australia. [GP]*

It can be seen from the above statements that medical practitioners see professional advancement not as their individual responsibility but as a joint responsibility between themselves and their employers. They seem to think that, to some extent, in Australia this responsibility is taken jointly.

#### **6.1.4 Theme 2: Remuneration and pay packages.**

Factors associated with remuneration and pay packages (Figure 12) were also mentioned as constituting decisions to migrate. One unique thing about this theme is that these factors did not only constitute decisions to migrate but they were also the major triggers of migration. The subthemes of this theme are higher salaries and better pay packages. Another subtheme that came under this theme was that of mixed feelings about remuneration.

Theme	Sub-themes
Remuneration and pay packages	<ul style="list-style-type: none"> <li>● Higher pay</li> <li>● Pay packages</li> <li>● Mixed feelings about pay</li> </ul>

Figure 12. Theme of remuneration and pay packages.

##### ***Subtheme 1: Higher pay.***

Under this subtheme participants described how pay or higher salaries are a pull factor in Australia and mainly pointed to the issue of pay differences between Australia and New Zealand. They thought that these differences were very high and intolerable. Some

participants seemed to be confident that salaries are much higher in Australia than in New Zealand while others seemed not to be sure about this fact.

*Like in Australia Money please \$ [RMO]*

*We are drawn by the reputation for \$\$\$\$ [SP]*

*... they say it's all about money and for sure there are good salaries there in Australia [SP]*

It is worth analysing how the participants expressed the availability of good salaries in Australia by a string of symbols for money such as '\$\$\$\$...'. These could be taken to mean abundance of money available in Australia which of course could be perceived rather than real.

Apart from simply mentioning that there is money in Australia some participants expressed how the salaries compare with New Zealand. In this regards some thought it was double or treble what New Zealand can offer.

*The discrepancy is intolerable (almost 100% or more, depending on where in Australia you go) and makes recruitment impossible. [SP]*

*Our salaries are small compared to colleagues overseas - I could treble my salary tomorrow by working in Australia [MP]*

*....I mean... you get double pay and get half the workload. [MP]*

As has been said the above figures may be true of other areas and specialities but to most medical practitioners these could just be perceived this way. This can be seen in the researcher's memo notes taken while interviewing one participant.

*Although the participants seemed to think that Australian salaries are higher when asked how high are the salaries were three of them stated that they have never enquired but they know that they can earn higher [Researcher's memo notes]*

Of much interest was the fact that there was evidence that some of what participants mentioned was hearsay. This was evident in the use of such words as 'hearsay' 'reputation' and 'grapevine'. For example:

*There is existing reputation that if you need money then go Aussie [MP]*

*...money, ....word on the grapevine. That's what we hear a lot and in the media [MP]*

*A lot of doctors talk about how Australia is Mecca. Your financial ambitions could be boosted by salary there [SP]*

The use of the word 'Mecca' could also be taken to mean both hearsay and also abundance. Mecca is a Muslim place which is known for attracting many visitors and some people who only hear of Mecca, never having been there, may believe that it is a spot of abundance.

### ***Subtheme 2: Pay packages.***

While in the above subtheme some participants simply mentioned salary differences, other participants stated that it is the total remuneration package that matters. This total remuneration would ideally include more pay coupled with better employment conditions such as CPD and leave.

*I definitely move for ...more money combined with better conditions [SMO]*

*Why can't [sic] I move given...higher pay, with associated better leave and CME conditions [SP]*

*...remuneration packaged with better conditions of work [SP]*

*...money and associated salary benefits [MP]*

Some participants even specified what those conditions were. These included superannuation, cars, and reduced workload as a result of having administrative assistants helping the clinicians.

*...pay MUCH [sic] higher as well as super contribution of employer and allowed expenses also better equipment (and of course the weather) [MP]*

*...It is mostly money plus at senior level so extra perks sic as salary sacrifice, cars, research opportunities and Secretaries. [SP]*

It can therefore be concluded that it is not only a higher salary that seems to be an attraction but associated generous conditions are an attraction too.

### ***Subtheme 3: Mixed feelings about pay.***

In addition to feelings that salaries were much higher in Australia some participants seemed to convey mixed feelings about salaries. Feelings were mixed in the sense that some seemed to be content while others seemed not. At the same time some participants seemed to think that they are reasonable or nothing to cause migration.

In the statements below doctors see salaries as either reasonable or varied according to where one is employed. Participants even saw the discrepancies as subjective and dependant on one's view.

*The payment is not as bad as it looks when taking into account the breakdown of the "benefit package" [MP]*

*Good in the main centres. Less than ideal in some smaller centres because of rosters and hours on call. [SP]*

Other participants simply felt that there is reasonable remuneration here in New Zealand and the salary differences did not warrant any movement. Some even described those who move as being greedy.

*There is reasonable remuneration here in NZ*

*Going to Australia is just Greed. You can still have a good life here in New Zealand [SP]*

*Pay- it depends on what you buy- if you want a fancy house and fancy car then go to Australia. [SP]*

*Money - actually I feel sorry for those that move for this reason; doctors here (NZ) get a good salary whatever some might say [SP]*

While some of the above participants simply expressed their feelings about being content some participants seemed to rationalise the reasons for lower salaries in New Zealand.

*Financial remuneration is much higher in Australia but NZ is a relatively poor country and we will never compete at the same level. [MP]*

*Remuneration ...but it should be noted that hours worked in Australia are often higher than in NZ, but overtime paid rather [WE]*

It can be seen from all the above aspects of this subtheme that although some participants clearly specified that there are higher salaries in Australia, there are some who know this fact but think it does not warrant migration. At the same time there are some who seem to be reasonably comfortable about salaries.

### **6.1.5 Theme 3: Working conditions.**

The theme of feelings about working conditions, summarised in Figure 13, reflected varied and diverse views about what the working conditions are like in New Zealand. The views included that these conditions range from satisfactory to very good and from bad to worse as well as mixed feelings about what the conditions are like in the sense

that some individuals thought they were both good and bad aspects. There were also views expressed about workload and non-clinical duties and some issues that were a problem in certain specialities.

Theme	Sub-themes
Working conditions	<ul style="list-style-type: none"> <li>● Satisfactory to very good</li> <li>● Bad to worse</li> <li>● Comparably favourable and improving</li> <li>● Mixed feelings about working conditions</li> <li>● Workload and non-clinical duties</li> <li>● Issues specific to specialities</li> </ul>

Figure 13. Theme of working conditions.

***Subtheme 1: Satisfactory to very good.***

In addition to sentiments about improving conditions some participants had a clear stand; that conditions are either satisfactory or very good. There were some who thought that they were good compared to what other people are earning in New Zealand and some who thought that they were good considering a number of other factors packaged with working conditions.

Those who thought they were relatively good tended to compare with what most people are paid in New Zealand.

*Relatively good compared to other health professionals [SP]*

*Generally speaking they are good compared to most other people working in New Zealand.[WE]*

Other participants who indicated that conditions were good qualified their statements in various ways. For example, some said they are good in terms of remuneration while others said that they are good considering the hours that are worked. Some thought that the conditions are good and the issue is that there is always Australia to compare with.

*I think working conditions in NZ are very good with sufficient remuneration [WE]*

*They are generally well supported and do not work onerous hours [SP]*

*I think work conditions are reasonably good overall - that is not to say we cannot improve them further. [WE]*

*They are fine however people will always look to do better if they can and OZ offers much more [SP]*

There was a group of participants who thought that conditions are generally good; and this was taken to mean satisfactorily good. These participants mentioned various reasons why they thought the working conditions are good. These included consideration of the overall workload; some considered working conditions in terms of opportunities for CPD and the clinical autonomy.

*Pretty good Good conciliation –46 hours a week [sic]. Have time for paperwork, research.[SP]*

*I have \$16,000 medical education registrar. I am happy with.[SP]*

*I have opportunity for doing things that interest me. Satisfied with opportunities. E.g. post grad in clinical education. diploma in cardiology [SP]*

*Generally good, with more clinical autonomy and more paid higher-training support than many Aussie new grad positions, even as they are less well remunerated [MP]*

There was also a group of participants who stated that conditions were not just good but very good.

*Very good working conditions, with relatively easy hours now compared to my [MP] years. [SP]*

*Very good working conditions during and after training [SP]*

Of special interest was that although the participants thought that conditions were very good none of the participants mentioned the word excellent in reference to working conditions.

### ***Subtheme 2: Bad to worse.***

On the other hand, there were some participants who thought that conditions ranged from bad to worse. These participants mentioned various reasons for their statements ranging from reasons associated with disparities in working conditions across specialities to lack of support with resources. Some participants saw working conditions as being simply bad and boring.

*Boring and Less respect for doctors from pts and other staff [MP]*

*Bad and don't seem improve [MP]*

Other participants saw the conditions as deteriorating and they gave the reasons for thinking that way. These reasons were pay reduction, staff turnover and stress levels affecting them.

*They are deteriorating, definitely given recent run reviews and reduction in pay as well as increasing vacancies [MP]*

*Resources are deteriorating and workload/stressors for senior doctors is not an attractive option to younger doctors.[SP]*

### ***Subtheme 3: Comparable, favourable and improving***

While some participants felt that conditions were not favourable others thought that they were definitely improving. Such opinions are actually a positive sign when considering individual job satisfaction in the workforce.

*Graduate conditions are definitely improving. [MP]*

*They have improved considerably at a junior level, but our Hospitals run on very low levels of senior staff [SP]*

*Vary enormously depending on where the graduates practice. Generally easier workload than in previous generations, but in an environment where we are more risk-averse and sensitive to error, and where we have much higher expectations around work/life balance [sic]. [SP]*

*Compared to how it was long back when I graduated the current graduates working conditions are exceptional [SP]*

In addition to the above feelings about working conditions some participants even qualified their statements by making comparisons with other English-speaking developed world countries such as Australia, UK, and the US. It must be noted that the countries mentioned by the participants are actually some of the leading recipient countries for New Zealand medical practitioners.

*Generally good, ... and more paid higher-training support than many Aussie new grad positions, even as they are less well remunerated [SP]*

*In general I have found that pay is a bit higher but hours longer. Similar to what you find in the US.[SP]*

*The conditions are better than in UK, but pay is lower. [SP]*

Of much importance in this subtheme is that most of the participants who aired the above views had actually worked in one or two of the mentioned countries and hence had practical experience. Although such views are not taken to be facts they are of

special importance as they come from people who had a lived experience of being medical practitioners in these countries.

*They are actually good. I am UK trained and also worked in Australia. Will be staying indefinitely in NZ as pressures are lower, working conditions often comparable and standard of living comparable. [SP]*

*I actually trained in Australia (one for reverse migration) and I think conditions are generally good here [SP]*

*Having worked in the UK as a junior and Australia as a junior and specialist, my experience has been that the juniors' working conditions are on the whole better in NZ, but seniors' conditions worse. [SP]*

The above expression of feelings could also be a question of personal preferences rather than fact.

#### ***Subtheme 4: Mixed feelings about working conditions.***

The subtheme of mixed feelings about working conditions reflected expressions where participants mentioned both positive and negative things. The participants who expressed mixed feelings about working conditions indicated that conditions can be seen to be good only if there are some improvements in some areas, such as roistering.

*Excellent working conditions, unfortunate loss of team structure, largely due to [MP] roistering from RDA. [MP]*

Other participants' views were that there are some good aspects and bad aspects as well. The participants tended to even specify which aspects were either good or bad. The aspects that contributed to conditions being described as bad included being disengaged, relational issues and financial inducements.

*Overall, conditions are not too bad, although this is very variable [MP]*

*So although the working conditions are quite reasonable the working atmosphere can feel overwhelming and demoralising particularly to those new in their medical careers. [MP]*

*Working conditions have been good but not improving and many doctors are disengaged. [SP]*

*I think they are actually good but don't look good because of the different exchange and remuneration rates. [WE]*

*Good conditions currently and initial remuneration but need inducements (financial and training) to enter and complete [WE]*

Probably one of the significant things about the above statements is that such statements may be taken to mean that participants are either ambivalent about working conditions or simply tend to rationalise the state of affairs.

***Subtheme 5: Workload and nonclinical duties.***

Some participants tended to point out that the workload is not favourable mainly because of long hours. They also expressed dislike of non-clinical duties. Participants tended to specify the effects of workload on their wellbeing and motivation.

*When there are shortages it causes stress and limits support and training experience. [MP]*

*Generally good but the hours and intensity are creeping up [MP]*

*The working hours are very long in New Zealand. [SP]*

Non-clinical duties were seen as not preferable to most participants. They tended to prefer to concentrate on direct patient care and other clinical duties. The aspect of non-clinical duties that most participants mentioned was paper work.

*They are reasonable but probably reasonably “boring” with a lot of paper work and systems work rather than direct patient care. [MP]*

Junior staff to senior staff proportion of the workforce was seen as a contributor to workload issues, which included imbalance of the distribution of workload. Senior doctors tended to think that junior doctors work less.

*Currently there are too few junior doctors to safely accomplish the workload [SP]*

*Junior doctors definitely leave all work for senior doctors. In other countries they do the job instead of following senior doctors around like puppies....[SP]*

*Lack of junior doctors and workforce shortages exacerbate problems with increased workloads.[SP]*

Participants also mentioned stress levels as high and as rising from the intensity of the workload.

*...relatively they are not bad, but they are busy, expectations are high, stress levels are high, and it takes its toll [MP]*

*I DON'T think we lose doctors primarily because of \$s, but because of having too few doctors to provide the hours of care that the government says must be provided and hence doctors are stressed [sic] [WE]*

Participants also expressed feelings about non-clinical duties. Of particular interest in this subtheme is that all participants who mentioned non-clinical duties tended to clearly specify that they are not favourable. This is unlike the other issues such as remuneration where participants expressed varying opinions.

*Of importance to us are....ideas of a more rounded role with a better clinical-non-clinical split. [MP]*

*...definitely reducing severely the non-clinical processes & “paperwork” [MP]*

*Instead of lots of paper work I would think it would be ideal to have 1/3 service 1/3 training 1/3 having decent laugh relax- satisfaction [MP]*

*Clinical experience should not be dominated by the paper but by patient experience [SP]*

Some of the above participants seemed to be more concerned about the proportion of time spent on non-clinical work rather than saying that they do not want non-clinical work.

#### ***Subtheme 6: Issues specific to certain specialities.***

Issues related to some specialties concerned discrepancies in working conditions. These included the levels of remuneration, staffing levels and availability of training posts. Issues about discrepancies in remuneration were raised by medical practitioners and even specifying the specialties that are less remunerated.

*The loss of medical graduates is mostly in specialties that are less well remunerated ie have not a private practice buffer, are full time DHB , physicians, psychiatrists, although there is still a lucrative market for radiologists and anaesthetists who are relatively well paid. [SP]*

*Particularly some obscene incomes in certain specialties like ophthalmology - attracts the wrong types into medicine [SP]*

*The discrepancies between how specialties are paid in NZ is also unfair (ie. orthopaedic surgeons don't immigrate as often as psychiatrists...they earn here what they do in Australia). [SP]*

*Also if you can benefit from ACC (again surgery biased...), you are less likely to go. [SP]*

Other issues raised related to the availability of training posts. Training posts were said to be either very limited or unavailable in some instances or areas.

*...competition for restricted posts here fiercer than most places (other than the largest cities) [SP]*

*...failure to obtain the specialty post of choice in NZ especial in specialities with much competition [SP]*

*[SPs]- far too few in some specialities.... [SP]*

The expressions of feelings by participants under the theme of feelings about working conditions, appears to indicate that participants had mixed feelings about their working conditions. It can also be said that participants were clear about the aspects of working conditions that they did not like although they did not elaborate much on the aspects that they liked. What stands out in this theme is that participants are not happy about non-clinical duties and also the allocation of duties between junior staff and senior staff.

#### **6.1.6 Theme 4: Management and collegial relationship issues.**

In addition to expressing their feelings about working conditions participants also raised issues about relationships, as shown in Figure 14. These relationships issues were either between themselves and management or between themselves and their colleagues. Generally participants felt that the management was hierarchical and this hierarchical structure seemed to be taken as a means of manipulating or interfering with medical practitioners performing their roles. Some medical practitioners were also not happy with the communication styles adopted by some managers. The issues between medical practitioners and their colleagues were mainly related to the sharing and allocation of duties.

Theme	Sub-themes
Management and collegial relationship issues	<ul style="list-style-type: none"><li>• Management issues</li><li>• Collegial relationships</li></ul>

Figure 14. Management and relationship factors.

##### ***Subtheme 1: Management issues.***

Among issues specific to management, participants mentioned managements' responses to input from medical practitioners. It seemed that decision-making processes were of paramount importance to medical practitioners. These issues seemed to be related to attitudes and the manner in which management conducted themselves when it came to conflict resolution.

Firstly, medical practitioners expressed concern mainly about a number of organisational issues and the need to change the way some specific aspects of the job such as rostering are done.

*Need to improve flexibility of contract criteria to get greater continuity of care thus improving patient care, medical training and save hand-over costs. [SP]*

*Need more consultation with the [SPs] in roistering [SP]*

*remuneration clinical experience overseas trip System less chaotic and less in crisis with deficiencies and lack of control by senior doctors and GPs [MP]*

Some statements specifically pointed to the sources of tension. In this case some participants pointed to use of equipment and access to resources as a source of tension between the management and medical practitioners.

*....quite significant restrictions on use of and access to technologies and treatments [SP]*

*Always... arguments with DHB's about equipment likewise reduce job satisfaction.[SP]*

*Under-resourced and overworked system... but management doesn't think so... [MP]*

It was interesting to note that some participants clearly pointed to DHBs as a whole as sources of conflict with management. This might be taken to signify that the problems are systemic as well as being particular to some departments.

*...a lot of risk management and 'political' drivers that possibly cloud young Dr scenery.... ? [MP] scene here regards relationship with employing district health boards appears adversarial and [MPs] express being undervalued and isolated from medical teams --- the industrialised model of medical employment is headlines and its undermining sense of professionalism etc etc DHB's dont have a track record of valuing training above clinical service provision in many speciality areas [sic] [MP]*

*Health system fragmented and one of the most consistent gripes I have heard around the country is the retention of good doctors frequently is hampered by the utter incompetence of some of the District Health Boards and their members. Bureaucratic idiocy seems to be less a factor in Australia. [RMO]*

*The perpetual and increasingly bitter relationship between senior doctors and the DHBs that employ them. [SP]*

*There is clinician disengagement from the sector because of the empowerment of managerialism which I consider a pestilence and scourge on the health system. I hold the view that re-engagement of clinicians will be minimalist and powerless and that there will simply be just "tokenism" [SP]*

The use of the word 'perpetual' in the above quote might be taken to signify that the participant was not talking about a one off situation but rather a continuous and

strenuous situation. ‘Adversarial’ and ‘bureaucratic idiocy’ were also strong terms used by the particular participants above.

Other issues related to styles of management which the participants saw as autocratic and punitive.

*A constant trending toward punitive style measures which disregard professionalism and assume authoritarian based action will solve workforce issues. [MP]*

*...assertiveness frowned upon, not encouraged to make decisions [MP]*

*Excessive bureaucracy and managerialism. Punitive too. No thanks! I do medical physician locums in Australia as a possible prelude to moving there permanently. [MP]*

*...often management relies on goodwill or fear of not getting onto the chosen training programme.... [MP]*

In the above quote attention is paid to the selection of words such as punitive by participants. Employees of a higher social status such as medical practitioners may not be expected to be subjected to treatment that warrants use of such words. Use of such words as ‘frown upon’ might be taken to signify fear on the part of the participant. The use of the word ‘conservative’ on the other hand might be taken to refer to inertia when it comes to suggestions for change.

Participants also raised issues about general engagement in decision-making as well as partnerships between different levels of management.

*There are some push factors such as lack of engagement with senior staff in decision making by sen managers.[SP]*

*There is no engagement in decision making! [SP]*

*... Antiquated and poor response to change. Lack of impetus to change and input ideas from overseas conservative... [MP]*

*... Other factors that would help are better partnerships between senior clinicians, senior management and Boards. [SP]*

The statements above seem to be pointing to a management system which is hierarchical with a top-down decision-making process. This can be seen from the use of such phrases as ‘no engagement’ and ‘better partnership’.

The issues raised above led to the following writer’s memo notes:

*This is the fourth instance where I keep seeing issues related to management and engagement...perhaps in the discussion I need to look at theories that explain engagement [Writer's memo notes]*

There was also a general expression by medical practitioners that they needed to feel valued and respected. Sentiments were also expressed about recognition.

*DHBs can do better at recognising the excellence they have in their senior staff. Some do international groundbreaking work but are unsupported or this goes unacknowledged. [SP]*

*There is need for people to feel Valued and respected .....but no not in NZ.[MP]*

*...failure to recognise (in a meaningful way - such as UK merit awards) additional contribution to the health service. suggestions that simply making it a 'nicer place to work' or that 'superior lifestyle' will be enough to retain professional is doomed to fail.[WE]*

The consistent use of the word 'respect' among different participants is worth noting. The strength of this word is noted by the fact that in some cases participants clearly stated that they needed to be valued.

In the above quotes the words 'recognised', 'valued' 'respected' gave rise to the following writer's research memo notes.

*Some of these words e.g. 'recognition' and being 'valued' 'awards' relate to motivation. It will be useful to review motivation theories in the discussion section of this work [Writer's research memo notes]*

From what has been presented above it can be seen from the words that medical practitioners were using words that indeed showed some levels of dissatisfaction with management systems. These issues related to management are to do with communication and the manner of conduct by management to medical practitioners.

### ***Subtheme 2: Collegial relationships.***

Issues about collegial relationships were mainly concerning relations between medical practitioners in different levels. These included bullying, workload sharing, tasks allocation and other relationship issues.

*...co-worker relationships are bad [SP]*

*...[MP]/smo relationships tend to be bad [MP]*

*It seems variable. Some junior doctors still report bullying, being unappreciated and treated with poor respect. Others have a good experience, particularly in primary care and community settings.[MP]*

Other issues raised were about workload expectations. Although these issues were said to be about collegial relationships they seemed to be issues that could be resolved with management, not only with colleagues. The participants also seemed to think that these issues tend to be better in Australia by comparison.

*.....Different expectations between [SP] and [MP] about levels of support [SP]*

*Consultation needed about [MP/SP] workload proportions Less work In Australia... You have back up colleagues, huge work force in Australia.....Here no back up [MP]*

In some cases participants raised issues around mentorship processes as triggers of relationship issues.

*... finding a niche ...- with good team and strong [MP] bound up with mentor/[SP] role models that don't make them dismayed..... [MP]*

*Apprenticeship and Mentorship by consultants Better consultant mentorship [MP]*

The theme of management and relationship issues reveals that medical practitioners have in this research tended to express feelings that they are not happy with the management styles adopted by their senior managers. Participants have also blamed DHBs for some issues.

### 6.1.7 Theme 5: Health system and government policy factors.

The opinions in this category included those that related to registration, regulation and registration issues, as shown in Figure 15. Health system opinions were also about the clinical environment and the way it is resourced. Participants also mentioned issues about the general health governing system. Student debt was one of the major government policy issues to which participants kept referring.

Theme	Sub-themes
Health system and government policy factors	<ul style="list-style-type: none"> <li>• Registration, regulation and policy issues</li> <li>• Health system and clinical environment</li> <li>• Clinical and technological resources</li> <li>• Student debt</li> </ul>

Figure 15. Theme 5: Health system and government policy factors.

***Subtheme 1: Registration, regulation and policy issues.***

Some issues seemed to be specific to overseas-trained medical practitioners. For example, the registration hurdles that they faced seemed to be prevalent in their utterances. Although these medical practitioners had already registered they seemed to still hold the issues in their minds.

*Medical council- does not consider me adequately trained even though I have had double trained and double experienced.[MP]*

*There was a time when there were lots of stories which were negative about overseas trained doctors and by that time i contemplated leaving so even now I have contacts and can leave anytime.[GP]*

*Because of registration hurdles I faced initially as an OTD i feel not loyal to NZ [GP]*

*I know lots of OTDs who left NZ unregistered but when in Aussie got lots of support and are registered. [GP]*

In addition to registration factors, some issues under this subtheme seemed to be generally about the health systems and the regulatory environment in New Zealand. The participants mentioned both positive and negative things about the regulatory environment in New Zealand. The positive things mentioned included the following.

*I like Quality of life is enhanced by ACC system [GP]*

*Lack of litigation makes NZ look good [MP]*

*Medico legal environment is good [MP]*

Negative things were also mentioned as additional things that can have an impact in making migration decisions and in the love of one's job. These included mainly the regulatory environment, especially the regulation of drugs and treatment options.

*...lack of opportunity to use new drugs / new techniques is an issue due to Pharmac restrictions. [SP]*

*...quite significant restrictions on use of and access to technologies and treatments [SP]*

*Consultants prevented from offering quality attachments by ARMOS, funding and regulation [SP]*

Issues of drug usage and access to technology mentioned above should not only be interpreted in terms of patient safety but rather linked to government funding. While other treatment options are safeguarded for patient safety, some other options are not

available mainly because of funding priorities. Although the government has priorities in health funding it must be noted that prioritisation sometimes has a ripple effect on medical workforce job satisfaction insofar as their goals of achieving positive patient health comes are concerned. Restriction in drug usage mentioned above could also be linked to how medical practitioners consider themselves as exposed to latest treatment technologies. This need for experience and exposure is therefore probably the one that drives them to Australia.

***Subtheme 2: Health system and clinical environment.***

Participants also mentioned administration issues related to the health system. These included health insurance and the running of health systems through DHBs in New Zealand. Participants felt that there are some adjustments that need to be made in this regard. Some issues mentioned under this subtheme tended to be mostly about the style of medicine and the general countrywide medical practice environment.

Participants mentioned issues that seemed to be personal preferences about the styles of medicine. These issues included patient empowerment and the private and public insurance preferences.

*However the NZ medical system is paternalistic. E.g. severely impairing the families by making 2 weeks appointments and then take time of work. I have to offer something valuable so that the patients see value to come themselves. Patients here want to be told. [SP]*

*Money does not intrude into the public system in NZ like in Aussie ( A clincher for me was seeing 2 patients treated vastly differently in Australia as a senior reg because one was insured and one was not ). [GP]*

*I like the style of medicine in NZ [MP]*

*NZ needs more privatisation of health care. Compulsory health insurance GP*

*More integration of primary care and secondary care will help further but is hampered by the fee system in primary care [GP]*

While the above problems seemed to be practical, other problems mentioned by participants tended to be philosophical. Some issues mentioned above, such as public funding and private funding seem to have been raised because of individual practitioners' values and philosophical inclinations about the allocation of health resources. Such individual preferences should be factored in when planning retention strategies because some individuals feel strongly about them to the extent of leaving a country. It must be noted that the way these issues were mentioned it seemed that they

were only additional things to consider in making migration decisions rather than being the main issues.

Other issues mentioned seemed to be related to the simplicity of the health systems and the ease of dealing with administrative issues within a health system. These questions mainly arose when participants were referring to the positive things about practicing in New Zealand.

*The simpler administration of the health system (despite our 20 DHBs) [RMO]*

*The inefficiency in the public sector and system focussed rather than patient focussed delivery of care intrinsic in the way most DHB's work contribute lot to erode job satisfaction. [SP]*

*Familiarity with systems NZ health system is simpler and more uniform compared to Australia. [SP]*

Participants also mentioned abstract bureaucratic processes such as audit and priorities of policy experts.

*Over-emphasis on "audit." for the sake of audit rather than investigating something which is really going to add useful information or change practice [SP]*

*Problems compounded by NZ addiction to bureaucratic processes, internally & externally which is pouring fast-setting concrete into our systems [SP]*

Although the above participants seemed to be dissatisfied with systemic issues, other participants seemed to see New Zealand systems as being favourable compared to Australian ones. One participant seemed to believe that small size can be an advantage if people think creatively about it.

*The strong advantage of medicine in NZ as compared to Australia is the public ... health system. Australia has a US-style medical system, fragmented in a myriad of private providers and with low academic potential. NZ needs to capitalise in a very significant way on these advantages by focusing resources into the public health care system (instead of small private providers) and improving the public health system, allowing for high-powered, high-level care and cutting edge academic development. ... is no reason NZ could not ..., like the Netherlands and the Scandinavian countries, being a small country.. [SP]*

It can be seen that the above mentioned health system and administration issues were mainly in favour of New Zealand. Participants mentioned issues that they did not like in Australia in comparison to what they liked in New Zealand. This therefore is a positive sign about the attitudes these participants have towards the New Zealand health system. Another very important implication of the above subtheme could be that some of the

above factors about the health system seemed to be abstract and philosophical. Therefore it should be noted that such philosophical inclinations of medical practitioners may have an impact on their preferences to practice in different health systems.

### *Subtheme 3: Clinical and technological resources.*

In this theme participants seemed to be concerned about technological and other clinical resources such as equipment. Technological resources included availability and access to technology such as telemedicine. Participants also tended to rate the standard of technology as poor while others rated it as exceptional. It must be noted that while the majority showed concerns, few participants thought New Zealand was good in this regard.

*Am not happy with technology. There are lots of software that could be used not only word processor. I have had good experience with computer use and here am frustrated about how some computer software are not used [SMO]*

*Tele medicine in fracture is very minimal. [SP]*

*Access to technology and things is very hard. [SP]*

While the above referred to technology, other participants mainly spoke about access to modern treatment options and associated equipment, as well as other clinical resources.

*We need better access to newer treatments [SP]*

*Greater access to better facilities and equipment. [SP]*

*Introducing and training in new technologies eg ultrasound guided procedures/echo-cardiography. [GP]*

*Improved senior positions with provision to complete quality research and offer up-to-date technologies to patients [SP]*

Other participants were not happy about access to equipment and technologies and others thought that the equipment and technologies were exceptional.

*Here there is excellent computerized access to lab tests [MP]*

*Exceptional support e.g. you order lab test results in the morning and they are available in the afternoon [MP]*

Participants also mentioned issues about the availability and even access to clinical resources and commented that these compromise standards of care. They indicated that

these are minimal to optimal. Some of them were comparing these to the Australian context:

*Very challenging conditions, .....resources in NZ are very constrained [SP]*

*Resources sometimes not optimal. the public in the context of a poorly funded/resourced health service battling to meet some of the basic needs. [MP]*

*Supporting infrastructure and resources... I hear it is better in Australia. [MP]*

*Australia is superior when it comes to resources. The little resources that we beg for here in NZ are used as tools of manipulation by management or those who control them.[MP]*

*.....generally in hospitals substandard. ingrained problems of insufficient resource vs demand. Services continually fail to keep pace with rising demand. [MP]*

The participants' comments under the subtheme of clinical resources seem to suggest that the way the clinical environment is resourced has effects on job satisfaction. Also because New Zealand has a mobile workforce that has had experience in many countries, the resources will always be compared with those of countries where these medical practitioners have worked. In practical terms, though, the New Zealand economy is smaller when compared with other developed world economies.

#### ***Subtheme 4: Student debt.***

Another government policy issue raised was student debt. Participants were not happy with the amount of student debt which they had accumulated or had already paid. Some participants were not happy about how that fund is administered and also the problems that have been created by the yearning to pay off student debt as a priority.

*Large student loans is a negative issue [WE]*

*Currently it is easy to see why debt burdened new graduates opt to work overseas. ... financial burdens on young adults are. [MP]*

*Large student debt and no aggressive government action is an issue here [MP]*

*Salaries and the very large student debt. [WE]*

Some participants, especially workforce experts, not only mentioned the issue of student debt but also mentioned how they thought it should be managed. They also spelt out their philosophical ideas about how the student debt should be handled. The philosophical ideas were that medical education is a public good and hence the government must also have a reasonable stake in the student debt.

*The principle reason is salary, and this is particularly an issue because of the albatross of debt that we hang around young graduates necks. This in turn comes from the working ideological assumption that tertiary education confers principally a personal good, whereas I contend it is principally a public good, which should be paid for collectively. [WE]*

Other participants also mentioned how the issue of the student loan has created problems, especially in terms of a change of attitudes towards earning in order to pay the student loan. Some also thought that it has created disloyalty issues.

*This has created a mentality that one needs to earn more in order to help pay off student loans [WE]*

*I do not imagine that many NZ students feel a high degree of loyalty to stay in NZ having paid so much for their education. This creates a user-pays mentality in which their response is understandable. The more people that go to Australia and pay off the loan, the more likely that students' peers will also influence their decision to go and so it perpetuates.[SMO]*

*We must feel that.....career development rather than debt reduction is a priority [MP]*

It was noteworthy that most of the participants prefixed the word student debt with 'very large'. This might be taken to mean that participants do appreciate the need to pay student debt but their main worry is about the amount that they have to settle.

### **6.1.8 Theme 6: Lifestyle, family, social and environmental factors.**

The theme of lifestyle, family, social and environmental factors was also identified with subthemes as shown in Figure 16. On being asked about factors that could potentially necessitate movements, participants identified factors in the sub-themes of family and social factors, size of cities, personal and lifestyle and climate and climate and other geographic factors.

Theme	Sub-themes
Lifestyle, family, social and environmental factors	<ul style="list-style-type: none"> <li>• Family and social factors</li> <li>• Small cities in New Zealand vs cosmopolitan cities lifestyle in Australia</li> <li>• Personal, lifestyle and other geographic factors</li> </ul>

Figure 16. Theme of lifestyle, family and environmental factors.

***Subtheme 1: Family and social factors.***

Participants mentioned family and community attachments as some of the factors to consider when making decisions to stay or to migrate. It must be noted that mainly New Zealand born participants spoke about family and community factors as reasons for staying in New Zealand rather than as reasons for moving.

*Family.. Not wanting to uproot family [MP]*

*.... family commitments, desire to settle down. [MP]*

*Family ties and support comfort/ familiarity with culture - both professionally and socially ...lack of curiosity to explore new experiences*

While the above participants mainly mentioned family, other participants also mentioned family as well as cultural, community and social ties.

*Plentiful water and a good quality of life, family and cultural ties [MP]*

*Commitment to local communities and family. [SP]*

*Local, family and social networks. Familiarity with local services and systems. [SP]*

*...family masochism mistaken sense of loyalty to the country that trained them [SP]*

In the above statements it is of special interest that participants mentioned commitment whenever they spoke about community and this gave rise to the following researcher's memo notes;

*Commitment and loyalty seem to be used interchangeably. These two words have; in this instance been used with reference to communities yet in other instances they were used in reference to New Zealand as a country. This gives a reason for further exploration of these concepts in the discussion chapter [Researcher's memo notes].*

In addition to family and community factors participants also mentioned social factors that kept them wanting to stay in New Zealand. These factors related to societal attitudes, governance and race relations. In other instances these attitudes were contrasted with those of Australia.

*Greater societal commitment to a multi racial and cultural society [MP]*

*Also, there is relatively little severe deprivation compared to some Aboriginal settlements. [MP]*

In this subtheme about family and social factors it can be seen that some of these issues came from participants who have actually lived in Australia and they were therefore talking from experience.

***Subtheme 2: Small cities in New Zealand vs. cosmopolitan cities lifestyle in Australia.***

Small cities and cosmopolitan cities were seen to be vital for participants in making decisions about migration. Notably, they expressed mixed feelings in this regard with some preferring small cities and others preferring cosmopolitan cities. Some participants mentioned the advantages of working in small centres while other mentioned the disadvantages of working in these and hence preference for a cosmopolitan lifestyle. The same also applied to bigger cities. For example;

*....I love small cities...With modern technology the feeling of isolation is not very relevant. [MP]*

*....bigger hospital treat you as a number [MP]*

While other participants mentioned that they like small cities others thought that it was a disadvantage to be in small cities or centres. Although some medical practitioners as seen above tended to love small cities others clearly identified issues associated with being in small centres as a push factor.

*Smaller centres-GPs in small towns are in crisis. Specialists in small centres are also in crisis. [GP]*

*Teaching, training and not available in small centres. [SP]*

*Less than ideal [conditions] in some smaller centres because of rosters and hours on call. [MP]*

*Support at larger centres is good. Many smaller centres struggle retaining or attracting staff [MP]*

*overall ok except in small specialties, and for rural areas [SP]*

*Good in the main centres. Less than ideal in some smaller centres because of rosters and hours on call. [MP]*

From the above statements it can be seen that the issues were not only related to resources but to the general working conditions too, such as roistering and training.

Participants also mentioned preferences for metropolitan cities and their lifestyle in Australia. Some participants simply stated that they have preferences for larger cities while other participants indicated that larger cities tend to be vibrant and exciting.

*Larger more exciting cities [MP]*

*For me, .... a more cosmopolitan lifestyle (Sydney) would be the only possible draw of Australia.[SP]*

*Love of the bigger centres and their vibrant life [MP]*

*Also there is the lure of city life in the big centres [MP]*

*I think money is primary driving force, as well as experience of living in big cities [MP]*

*NZ is too small for growth because even right now I feel I have outgrown it. [SMO]*

The view of the participant who mentioned outgrowing the country matches the views of the other participants who said they prefer to go to Australia where there are bigger cities and bigger opportunities.

While some medical practitioners mentioned the lure of bigger cities, others preferred the lifestyle in small cities.

*Better life style in small centres - less hectic. [SP]*

*The pace of life seems slower here and there seems less 'risk' but that may just be a feeling. [MP]*

*Very specific geographical areas in which doctors wish to live.eg south islanders not wishing to live in Auckland, or Palmerstone North [WE]*

Other participants did not only refer to the size of cities but to issues associated with being in a smaller country. These included love of smaller distances to travel. On the other hand, other participants did not like the small size of New Zealand as a country comparing one of its cities as equivalent to a rural setting in Australia.

*Life style (rather than cultural activities per se) and natural way of life with smaller distances to travel [SP]*

The issue of preferences for bigger cities seems to be a question of individual differences. It is also a question of background. As has been highlighted, New Zealand medical practitioners are from diverse backgrounds. Indeed, some were brought up in countries with large metropolitan cities where the rural lifestyles do not even exist.

When IMGs migrate to New Zealand they tend to be deployed to rural and remote areas and hence face having to adjust to the lifestyles there.

***Subtheme 3: Personal, lifestyle and other geographic factors.***

Under this subtheme there was a mention of personal preferences and lifestyle in terms of the values and the general pace of life. Geographic issues included proximity to Australia and the love of the physical geographic environment, including climate, as a lure to either New Zealand or Australia.

Some of the preferences for New Zealand were around the area of natural resources, the general way of life and the values.

*In NZ....ability to maintain a good lifestyle without working too hard - this needs to be maintained [SP]*

*NZ is a rewarding place to live in and to work in regards the country (lots of water) the people, the values and culture [MP]*

It was noteworthy that some participants mentioned good things as an attraction about the climate in New Zealand, while others saw good aspects of the climate in Australia. One may therefore comprehend this as a question of personal preferences.

*Weather is a big point in Gold Coast it's fantastic. In Auckland I could not.[SP]*

*Good weather and beach lifestyle in Australia [MP]*

*NZ is good climate, Good weather [SP]*

*....weather and amazing scenery in AUS.[MP]*

*Predictable sunshine Australia.[MP]*

It was however noted that most participants tended to lean towards thinking that Australia has better natural scenery to offer than New Zealand. These features included beach lifestyle, warmer climate and the beauty of the scenery.

Another geographical factor also mentioned as a factor in making decisions to migrate to Australia was proximity. In this case participants expressed that sometimes they are faced with decisions to migrate within New Zealand. While making such decisions Australia too becomes an option because of proximity.

*If one is not able to get a desirable position in primary city of residence so sometimes if one has to get a position they have to make to another city and the*

*main point here is that if I have to move to another city I might as well move to Australia because of proximity. [MP]*

*Australia is close and you can come back to see family quiet easily and joint*

*Colleges mean that registration will not be an issue. [SP]*

*One we make decisions to migrate we consider ease of relocation and moving to Australia is as good as moving to Wellington [from Auckland] [MP]*

Personal factors such as adventure were also mentioned as important in migration decisions. These included the general curiosity to live in different parts of the world and also the overseas experience.

*Wish to 'see the world' - (that's why I'm here from UK ...) [MP]*

*...wish to travel and love of adventure [MP]*

*Young NZers are always going to have a few years overseas, for experience [WE]*

It was interesting that although other participants had stated that moving across the Tasman is as good as moving within Australia or within New Zealand some participants still viewed going to Australia as adventurous seeing another part of the world.

#### **6.1.9 Theme 7: Pull factors and retention strategies.**

Most of the statements in this theme came out of the question where participants were asked about what keeps them in New Zealand while others are migrating. Participants were also asked- what, if anything, could help to attract medical practitioners given the existing push factors and the number of medical practitioners who have already left New Zealand for Australia. Participants suggested measures such as promoting and acknowledging loyalty, capitalising on family pull factors, sustained recruitment strategies, competing within the means of a small population, bonding policies, training policies and student debt policies, overseas experience, training and medical education, remuneration strategies and bilateral policies, as shown in Figure 17.

Theme	Sub-themes
Pull factors and retention strategies	<ul style="list-style-type: none"> <li>• Promoting and acknowledging loyalty</li> <li>• Making graduates feel appreciated</li> <li>• Capitalising on family pull factors</li> <li>• Sensible bonding and other strategies of promoting inertia</li> <li>• Local and overseas recruitment strategies</li> <li>• Remuneration strategies</li> <li>• Competing within the means of a small population</li> <li>• Overseas experience</li> <li>• Training and medical education strategies</li> <li>• Bilateral policy strategies</li> <li>• Student debt related policies</li> </ul>

Figure 17. The theme of pull factors and retention strategies.

***Subtheme 1: Promoting and acknowledging loyalty.***

Quite a number of participants mentioned loyalty and a sense of entitlement as factors that keep them in New Zealand. It was interesting that the words ‘loyalty’ and ‘commitment’ kept recurring.

*Loyalty keeps me here [SP]*

*Loyalty to NZ. NZ lifestyle. Definitely not the salaries unless they work as locums [WE]*

*Commitment to NZ is a big factor for me [MP]*

*Altruism. Perceived quality of life but I am not at all sure that it is better here than across the ditch. [MP]*

Other participants even stated the reasons why they have that sense of commitment to stay. Reasons such as dedication to a country that trained them and positive experiences of working with communities were mentioned.

*Hopefully like me- Patriotism and the belief that NZ trained doctors have a responsibility to the NZ population. Also the desire to make NZ a international health state of excellence [MP]*

*Not salaries but Dedication to the country that trained me [SP]*

*The usual relationship factors, but also experiences in New Zealand communities which convince me of the worth of staying [SP]*

*Wanting to contribute to the society that enabled me... to succeed in ... profession.[MP]*

*Some students are very aware of the lack of doctors in rural areas and want to work there as a priority. [WE]*

It was interesting that none of the participants in the above statements mentioned salaries as a retention factor.

### ***Subtheme 2: Making graduates feel appreciated.***

Creating a sense of loyalty is similar to what the participants thought of as strategies for making graduates feel appreciated. In this research other medical practitioners even suggested such strategies as free lunches, regular satisfaction surveys and rewards for specific career achievements as ways of creating a sense of entitlement.

*In fact the working conditions (for instance free lunches) creates a sense of entitlement [SP]*

*...regular satisfaction surveys, and see what their expectations are...[SP]*

*...enjoying their job, being well trained - it should be that they feel appreciated but not sure we achieve that too well! [MP]*

*The demoralized senior workforce have a detrimental effect on young trainees and possibly contribute to the feeling that it is better to abandoning the sinking ship than to stay here. There is no longer time to nurture trainees to become good doctors in our system.[SP]*

*So...individual performance review/appraisals, with attached rewards in terms of specific recognition of career achievements and related financial incentives. [SP]*

The use of the metaphor of a 'sinking ship' above to signify how demoralised the workforce is noted as a way of demonstrating strong feelings about not being appreciated.

### ***Subtheme 3: Capitalising on family pull factors.***

In addition to loyalty and a sense of entitlement, other participants stated that family and social networks could be used as a pulling force to stay in New Zealand. It was noteworthy that both New Zealand-born and foreign-born participants made such statements.

*I have already strengthened my family base here in NZ and I guess this is same for others [SP]*

*If there were immigration policies that encourage both myself and my family to be established.... then i would stay [MP]*

*Social networks and...my family is already established here [MP]*

Although not a popular strategy promoting and strengthening family base could be a useful strategy as family issues are pragmatic in nature and not a matter of choice.

***Subtheme 4: Sensible bonding and other strategies of promoting inertia.***

In addition to having a strengthened family base, medical practitioners also thought that other strategies of promoting inertia such as bonding on the basis of scholarship should be implemented. As can be seen below the participants even gave the rationale for doing so. The logic was that the longer the graduate stays the more likely they will be established socially and professionally.

*If they were bonded to stay in NZ for 5-6 years after registration, in return for a large reduction or complete reduction in fees, they might stay for the duration of their specialty training, become established in NZ and be less likely to leave.[WE]*

*....there is also some simple inertia - the longer a grad stays here the more likely they are to stay here. I think some are motivated by a sense of duty as well but I think this is a relatively weaker factor. [SP]*

From the above statements it seems the participants were not specific about the bonding periods and did not mention whether they were aware of any existing bonding schemes. The participants did not, however, mention specific things that can make them stay longer.

***Subtheme 5: Local and Overseas recruitment strategies.***

Participants also highlighted local and international recruitment strategies as ways of intervention in a situation where there are trends in losing medical practitioners to Australia. Among ideas about local recruitment strategies mentioned were making the medical profession attractive to the general population and recruitment strategies targeting rural areas.

*One strategy is investment in education which would allow more local children to consider medicine as a vocation [SP]*

*.... showing evidence of a sustained strategy to address NZ's recruitment & retention problems. [SP]*

Although some of the above participants indicated the need to attract local students into medicine, anecdotal evidence indicates that there is a big competition for medical places which could mean that indeed local students are considering medicine as a vocation. Another avenue to consider could be that of making medicine attractive to high achieving students who might otherwise choose other scientific vocations such as engineering.

Overseas recruitment strategies suggested included the need to target recruitment of medical practitioners from European countries and the need to entice medical practitioners who have already left New Zealand to come back.

*I think there is great potential in targeting clinical academics in Europe and the US and attracting them to NZ in a similar way, into academic and/or senior positions. ....moved here from an academic medical career in Europe for the combination of high-quality medicine and lifestyle.[SP]*

*Declare a hunting season i.e. hospital managers and health bureaucrats! [SP]*

*The key is to keep in touch with those who left for overseas and be able to entice them back [SP]*

#### ***Subtheme 6: Remuneration strategies***

In addition to what could be done to entice medical practitioners who are overseas, participants also suggested that, locally, remuneration should be high. Others thought that there was no need to raise remuneration to match international competitors. Nonetheless, some participants thought that raising remuneration should be the primary strategy while others just suggested that it should be raised to reasonable standards.

*A sensible remuneration system that discourages locum seeking.*

*pay MUCH higher as well as super contribution of employer and allowed expenses also better equipment*

*Better pay primarily*

It was interesting that some participants acknowledged that it would be hard for New Zealand to compete with other countries for higher salaries. They seemed to stay away from suggesting salary increase as an option. One important conclusion from what the participants have said is that most of them are being realistic about the position of New Zealand to Australia and other competing OECD countries that New Zealand cannot financially and materially compete with. This is evidenced by the fact that most

medical graduates are actually clearly stating that improving salaries will not help much but a holistic outlook to conditions will help.

*If it was plausible I would say remuneration but bear in mind Australia has a bigger and better economy for better pay [MP]*

*Remuneration is important but other developed countries with stronger economies than NZ will pay top dollars [SP]*

*....not just offering jobs with good pay packages as the Australians will always be able to offer more. [SP]*

*- not [just]...increasing salaries but improving other conditions. We can never, and should never, try to compete with other countries for the best salaries SP]*

### ***Subtheme 7: Competing within the means of a small population.***

Other participants even made more suggestions of how New Zealand can compete within its means without having to try to match standards of bigger economies.

*NZ needs to think smarter, not bigger, and it could become even more of a global leader in healthcare, like the countries mentioned have been during the past several decades [SP]*

*We have a small enough population and we must capitalise on this. [MP]*

It can be seen from the above statements that the participants were being rational about the issue of salary being used as a retention strategy. They were specifically pointing to the smaller size of the economy in New Zealand as compared to Australia. Indeed New Zealand can still compete within its means given there are already medical practitioners in New Zealand from bigger economies such as UK and the US.

### ***Subtheme 8: Overseas experience.***

Another retention strategy that was mentioned by medical practitioners is overseas experience in the form of exchange scholarships. It was interesting that some participants tended to think that such exchange programs and scholarships seem suitable for younger graduates, as can be seen in the statements below.

*Bonding new graduates. Also need to accept that need to do some work in Australia to get full range of experience and help with college exams. [WE]*

*... structured overseas experience opportunities in the form of scholarships and exchange experiences with other countries. If we had exchange mechanisms formally in place for younger doctors they would have less need to find longer term jobs overseas and more likelihood of ultimately staying in NZ.[WE]*

Some participants were even specific on where such exchanges should take place and at what point of life it should take place. They indicated that it should be in larger teaching hospitals and it should not be at a time when medical graduates are contemplating settling down with life commitments.

*Perhaps developing 'controlled' exchanges of trainees between training centres that are supported by College requirements (eg advanced trainees from Australia and New Zealand spending 1 year in each others centres), rather than the present system where all trainees head west. [SP]*

*...more diversity of exposure and training in larger teaching hospitals[MP]*

*...more opportunity in life experience and just to do overseas experience (problem it occurs at an influential point in life where they meet their future partners).[MP]*

*...build in the opportunity to travel and work overseas as part of the career development (exchange schemes with suitable academic depts or services) [SP]*

On looking at the above quotes, firstly, one may interpret what the participants are saying as implying that medical practitioners are globally mobile. This is because participants are suggesting that travel and overseas experience should be built into careers. Secondly, one may interpret what the participants as implying is that there is value in gaining overseas experience. As indicated, there is a lot to learn from emphasising the link between training and experience with overseas travel. Thirdly, participants seem to be implying that overseas travel should be a joint responsibility with their employers as it is of mutual benefit to both parties. This is in the sense that while the medical practitioners will gain experience, employers will enjoy the services of bonded employees who might even stay longer and hence retention is achieved.

#### ***Subtheme 9: Training and medical education strategies.***

Training and medical education strategies such as decentralising training to small rural and provincial centres as well as offering more professional development opportunities were suggested as retention strategies. Statements that were emphasising rural training were mainly focused on providing opportunities for trainees to spend as much time in rural areas as possible.

*Less training focussed in big centres and more in rural/provisional areas so people realise that smaller centres have a lot to offer. [WE]*

*.... some emphasis on rural training. If we want to have primary care and rural hospitals then it is crucially important that we recruit more students from rural areas, give all med students much greater exposure to rural practice and focus*

*on training hospital generalists, able to cope with a wide range of presenting conditions [WE]*

Participants who mentioned rural training said this in the context of disproportionate distribution of medical practitioners between urban centres and rural areas. It is, however, noted that there has been some attempt in New Zealand to decentralise training to provincial areas; for example through the establishment of the Bay of Plenty Clinical School in 2009.

Other participants mentioned merely providing opportunities for traineeship as a strategy. They referred to this against the background of having some medical practitioners migrating to Australia to seek training opportunities.

*More opportunities for training and professional development ...otherwise living in Australia for several years to complete training leads to starting a young family often leads to settling down more permanently. ....The stage that many doctors are at in life at this time is such that marrying/ having children often occurs.[WE]*

*If doctors complete their training in rural areas or if they are of a rural origin and... complete most of their training in the rural main centres they will tend to settle there [SP]*

Indeed as has already been discussed in the earlier themes, having graduates going overseas for training does not only contribute to losses but it makes recruiting back strategies difficult. This is because medical practitioners sometimes settle in the country they to which they migrated.

#### ***Subtheme 10: Bilateral policy strategies.***

Some participants seemed to suggest policy factors such as collaboration of the two countries on workforce planning initiatives.

*I think the NZ and Australian health ministries should work together to have a plan for placing graduates in both NZ and Australia. The NZers migrating to Australia are responding to a workforce crisis there, resulting in a workforce crisis here.[WE]*

*...there should be a bilateral policy as both countries are siblings...[SP]*

In a way the above suggested strategies can be seen to be feasible because already Australia and New Zealand collaborate on mutual recognition of qualifications and also on many social policies. One would therefore expect that the process of implementing such measures would be practical, except there is an issue of violating individual choices and freedom of movement to consider. However, it must be noted that Australia

and New Zealand have different administrative structures for their workforces. For example, while New Zealand has a national unified structure, most, but not all, of Australia's health administration and workforce solutions are managed by different states.

### ***Subtheme 11: Student debt related policies.***

In addition to mentioning student debt as a push factor, participants mentioned student debt policies as possible retention strategies, if well planned. These policies would include reducing the amount that students are responsible for paying and innovative strategies such as bonding attached to relief of student debt.

*Less expensive fees for medical student training.[MP]*

*...relief of student debt attached to a bonding system [SP]*

*Financial inducements (eg repayment of student debt/ tax rebate for each year worked in NZ) [SP]*

*We should reduce the cost of medical school fees but require NZ grads to stay here for a period of several years after graduating. We should also need to increase the number of graduates.[WE]*

*....and financial incentives which encourage them to consider career development rather than debt reduction as a priority.*

New Zealand already has a student debt related policy called voluntary bonding. However, the fact that participants are not mentioning it might mean that its impact is not felt. It could also be the fact that it is not well marketed. Another reason for participants not mentioning this scheme could be that the sample of participants might have captured an older cohort that could not necessarily have benefited from this scheme.

### **6.1.10 Summary and conclusion on sub-project one results.**

This chapter has presented results on factors that are associated with decisions to migrate and also on factors that necessitate decisions to migrate. Factors that are considered in decision-making tended to be those that can perpetuate migration when they are combined together, not necessarily on their own. These factors include health system and government factors, working conditions and lifestyle and environmental factors. It was however noted that remuneration, career aspiration factors, training and family factors could necessitate either decisions to stay or choice to migrate. It was noted that although medical practitioners have stayed in New Zealand, they still have a

feeling that Australia offers comparatively superior conditions. This position has three implications. Firstly, the fact that medical practitioners are staying in New Zealand despite being aware of superior conditions in Australia could mean that those conditions deemed superior are not necessary conditions to cause migration for this sample of participants. Secondly, the fact that these participants are voicing concerns about relatively inferior conditions in New Zealand in comparison to Australia could mean that New Zealand potentially has a dissatisfied workforce. If participants were not dissatisfied they would have mentioned positive factors that could have overshadowed negative ones. A third implication could be that if the factors that medical practitioners were dissatisfied with are necessary conditions to migrate then New Zealand potentially has a workforce that has a propensity to migrate.

Having noted the reasons for staying including those of the New Zealand-based medical practitioners and workforce experts, the next section will look at the factors that were considered in decisions to migrate. The discussion will be from the perspective of medical practitioners who have already left to practise in Australia.

## **Chapter 7: Presentation of Sub-Project Two Results: Qualitative Interviews of Medical Practitioners who Migrated to Australia**

In addition to the earlier sub-project that sought the perspectives of medical practitioners and key workforce experts in New Zealand, a second sub-project was conducted with medical practitioners who migrated to Australia. The two sub-projects happened almost concurrently because they were independent of each other. These sub-projects, as has already been noted, were not meant to be compared but rather to supplement each other. It is also important to state that these themes came from 25 participants 14 of whom were interviewed by telephone, 4 were interviewed face to face in Australia and 7 completed an equivalent of an interview which was called an online qualitative interview questionnaire. The qualitative interview questionnaire had questions that were the same as those of the face to face and telephone interviews.

### **7.1 Demographic Profile of Medical Practitioners who Participated in In-Depth Interviews.**

Among the 25 medical practitioners interviewed, 15 were specialists (SP), including five general practitioners- post-training (GP). The other 10 were not specialists (MP), including two in training in the general practice vocational scope. The abbreviations MP, GP and SP will therefore be used as explained in the previous chapter in the key in *Table 27*.

The states where the medical practitioners worked were Western Australia (WA)(2) , New South Wales (NSW) (5), Queensland (QLD) (5), Northern Territory (NT) (3), South Australia (SA) (3), Victoria (VIC) (4) and there were some who did not indicate their state (3). The medical practitioners' countries of birth included New Zealand (10), South Africa (2), England (3), US (2), Australia (2), and five indicated that they were born in the class of Asian continent and Africa other than South Africa. In terms of gender, nine participants were females while 16 were males.

A summary of all themes that came out of this sub-project are provided in Table 29. The themes will be presented together with subthemes and text extracts from the participants. Under each subtheme, the process of presentation will involve a summary of what the extracts are about. In some cases after the extract the researcher will make an interpretation of latent meanings of the texts. The researcher will do so because this research is framed in an interpretive paradigm.

Table 29  
*Summary of Themes and Subthemes of Medical Practitioners who Migrated to Australia*

<b>Theme number</b>	<b>Themes</b>	<b>Subthemes</b>
1	Research, training and career aspirations	Research opportunities Training and subspecialty opportunities Variety of clinical cases and clinical opportunities
2	Remuneration and pay packages	Remuneration and pay packages
3	Working conditions	Working conditions
4	Management and collegial relationships	Management Collegial support and relations
5	Health system, Government policies and registration factors	Government policies Student loan policies Health system Regulation and registration issues
6	Family, social, and personal factors	Social factors Economic factors Family factors Personal and environmental factors
7	Push factors and intentions of returning to New Zealand	Push factors in Australia Intentions of returning to New Zealand

As shown in Table 29, on being asked about the factors that were important to consider in migrating to Australia, the medical practitioners mentioned reasons that fell under such themes as research, training and career aspirations; remuneration and pay packages; working conditions; management and collegial relationships; the health system, Government policies and registration factors; as well as family, social and personal factors. There was also a theme about push and intentions of returning to New Zealand.

### **7.1.1 Theme 1: Research, training and career aspirations.**

Participants spoke about how being in Australia afforded them wider and varied opportunities in the areas of research, training and other career aspirations. A summary of subthemes under this theme is provided in Figure 18. The opportunities they discussed were mainly in the areas of research, speciality and subspecialty training, ability to see a diverse range of clinical cases as well as other general opportunities. In brief, the participants thought that their chances of exposure are limited in New Zealand. They mainly thought that the limit in such opportunities is a result of the

small size of New Zealand as a country. These will be discussed below starting with research opportunities.

Theme	Sub-themes
Researcher, training and career aspirations	<ul style="list-style-type: none"> <li>• Research opportunities</li> <li>• Training and subspecialty opportunities</li> <li>• Variety of clinical cases and clinical opportunities</li> </ul>

Figure 18. Theme of research, training and clinical aspirations.

### ***Subtheme 1: Research opportunities***

Some participants moved to Australia mainly because they were not happy with opportunities for research in New Zealand. In reference to opportunities for research, participants felt that New Zealand did not support research adequately. Other participants felt that even the available support was feeble and Australia offered better opportunities. These opportunities included being closer to research experts with similar interests, being in an environment where there are larger teaching hospitals or where the hospitals have closer links with universities. Participants also moved to Australia in order to work in an environment where there was a larger family of experts in their fields of interest.

*My reasons for leaving New Zealand were as follows. Please list them exactly the way i will mention them: I wanted work in an environment where there is: 1. A large tertiary referral hospital, 2. Extensive support for biomedical research and this is the case in Singapore, 3. A family of research experts, 4. Support in the clinical department 5. Support for academic development within a clinical environment, 6. Excellent integration with research and development laboratories. (sic)[SP]*

While other participants were specific about the aspects of research opportunities that made them leave, others spoke generally about research opportunities.

*... main reason is that the research funding in NZ is minimal compared with Australia. [SP]*

*Career advancement pathway with reduced clinical workload and more academic/research support. [SP]*

*My perception is that academic pathology is dead in NZ. Stability in the pathology services tendering process (sic) [SP]*

*I needed better recognition and remuneration. Better working conditions including protected time to perform research [MP]*

While some participants were more concerned about available opportunities for research, others were more focused on being in a community of recognised experts in their areas of research. Other respondents were also concerned about opportunities to grow into recognised world experts in research. They thought that New Zealand did not offer such opportunities.

*I needed an environment with more research funding. A community of recognized experts in global health too [SP]*

*Increase in salary funding of research, infrastructure and greater critical mass of researchers [SP]*

*My field of focus is in infectious diseases in low- and middle-income countries. New Zealand has no group of experts nor any research support available for this type of work. New Zealand has a dismal health research funding track record in recent years; it is virtually impossible to become a recognized world expert in my field in such an environment. [SP]*

There were also some opinions expressed about the calibre of training institutions. The participants indicated that they were generally concerned about the quality and the functioning of training institutions in New Zealand

*Wanted to work in a large well functioning public health system ..., well organized. Training affiliation with accreditation large tertiary level hospital with academic focus and this does not exist in NZ. [SP]*

From the statements said above, it can be seen that participants have a perception that New Zealand research opportunities are limited when compared to Australia. It would be worthwhile to review literature about how research opportunities compare between the two countries.

In addition to raising issues about research opportunities participants also raised concerns about training opportunities they thought were available in New Zealand.

### ***Subtheme 2: Training and subspecialty opportunities.***

There was a group of participants who indicated that their main concern was scope of training opportunities. Participants thought that the more they wanted to advance themselves in New Zealand the smaller the chances were of getting the advancement opportunities. This was mainly seen to be because of restricted availability of opportunities. Some participants even described setting up in New Zealand in an advanced speciality as taking a risk. Other issues raised by participants were generally about the attitude of management towards training for staff. For example, some

participants were generally unhappy about the attitudes of employers towards professional development and training, which they described as lacking encouragement. The statements expressed about the general attitudes of employers towards training included the following.

*There was no encouragement to do specialty [MP]*

*Here study leave is a right & in NZ it's hard. You beg for training in nz [MP]*

Other participants expressed concerns about lack of opportunities for specialisation and the risks that arose out of specialising in particular areas and attempting to settle in New Zealand.

*I needed advanced training in specialist area. Only available in Australia. No suitable job ever became available in NZ to allow for appropriate and early return. Offered a job in Australia that enabled sub-specialisation not available in Auckland [SP]*

*In New Zealand the higher you want to advance the narrower the chances of doing so arise...a ceiling [MP]*

*My training in Radiology is similar in Australia and NZ. I did further training in Nuclear Medicine and PET which is not well supported in NZ in Public (sic) hospitals. Too big a risk in setting up in NZ with Nuclear medicine without Medicare support [SP]*

Other participants simply failed to find training opportunities and relevant jobs because they were not available in New Zealand. They felt that they could only be able to fulfil these aspirations when they migrated to Australia.

*I didn't get the intern job I wanted. [SP]*

*I was able to complete my postgraduate training in Melbourne, whereas I would have to move around in New Zealand ...pathology [SP]*

In addition to subspecialty issues, some of the areas where there were no jobs were those in which the participants specialised in diverse and rare diseases that were hardly prevalent in New Zealand.

*There are no advanced registrar training in NZ almost non-existent at advanced level in my area [SP]*

*The job I have now does not exist in New Zealand [SP]*

*Left to do a PHD program in Melbourne and training choleric pathology [SP]*

*Also consultant position for my particular specialty was non-existent in NZ although majority of my training was done in NZ. Job opportunities are better in Australia [SP]*

Participants tended to use the word ‘non-existent’ in reference to the unavailability of training posts in New Zealand. In cases like these, it can be seen that even if participants stayed they had to do so at the expense of their career ambitions.

In some specialities, participants indicated that shortages were caused by oversupply. It is interesting that specialists would talk of an oversupply while in New Zealand most shortages tend to be at specialist level (Association of Salaried Medical Specialists Report, 2010). This could be an indication of a disproportionate supply of medical practitioners in certain specialities.

*In Auckland I was limited by an oversupply of radiologist. Over supply of radiologists. (sic) [SP]*

*At the time I graduated in Radiology, there were no job opportunities in NZ - they had all gone to South African immigrants (who subsequently migrated to Australia) [SP]*

Participants also indicated that issues were not only about availability of specialist training positions but also about jobs. Most of these participants evidently moved to Australia and got jobs along with even more other opportunities such as further subspecialty training.

*I got not only fellowship training opportunities, but good employment opportunities too [SP]*

*Moved to Australia to do fellowship and have stayed on due to increased career opportunities and better remuneration package. [SP]*

*Advanced training or fellowship jobs were better in Australia and this led into staying as a consultant [SP]*

Participants also mentioned issues associated with being in a place where there is support by colleagues and also support by the system. Support by the health system was mainly mentioned in the context of health funding.

*My field of focus is in infectious diseases in low- and middle-income countries. New Zealand has no group of experts nor any research support available for this type of work. New Zealand has a dismal health research funding track record in recent years; it is virtually impossible to become a recognized world expert in my field in such an environment [SP]*

*Size of professional community and opportunities for experience... an issue in NZ [SP]*

*Better career path and pay. Ability to train in my specialty (Nuclear Medicine) in NZ Better funding for imaging [SP]*

Other issues were not only about the availability but about the number and variety of available jobs.

*More consultant positions in chosen field (Chemical Pathology). Big issue at the moment in Australia with most specialties: overseas trained doctors are being used to fill "areas of need", despite plenty of training specialists. A short sighted attempt to solve the senior doctor problem, there will now be a great many qualifying specialists competing for a small number of jobs [SP]*

Of special interest about this theme was that the issue of training positions and available jobs was a main trigger for migration to most of the participants. It seemed that the concerned participants were left with no option but to leave and find opportunities in Australia.

### ***Subtheme 3: Variety of clinical cases and clinical opportunities.***

Under this subtheme participants mentioned reasons for leaving New Zealand such as a lack of variety of clinical cases and varieties of treatment opportunities. By varieties of clinical cases they meant that in New Zealand they had limited access to patients presenting with unusual or rare diseases such as HIV/AIDS. By varieties of opportunities they meant exposure to the latest available treatment options which other countries in the developed world could be having for example;

*Better/faster access to medications in haematology eg.monoclonal antibodies, Immune modulatory agents for myeloma. Better access to PET-CT scanning - had since 1999. Still not available in Auckland [SP]*

Other participants spoke of a lack of opportunities to have exposure to rare diseases. These rare diseases could only be prevalent in a country with a larger population pool.

*I left to practice adult HIV medicine because at that time this was a very limited speciality in NZ and hardly any cases. I intended to return but the opportunities in Australia, the excellent salaries, marrying an Australian and the similarities in culture have kept me. [SP]*

Some participants also spoke of the size of the population they were working in as having been important in them making decisions about migration.

*The immense variety of patients is importance [MP]*

*Isolation and lack of variety of clinical cases. This happens when you work in smaller centres where you can't get a variety of clinical cases. This was a problem. Sometimes there is no variety of clinical cases. You may have to do the thing is you feel unhappy in one area of NZ and when you want to move there are limited opportunities to move within New Zealand and hence you think Australia.[GP]*

It also seemed that participants felt that a smaller patient population did not present them with enough options for career development such as research opportunities and specifically clinical trials.

*Bigger patient population for clinical trials [SP]*

*...by moving to Australia within 6 years I was able to be part of a team conducting clinical trials in this country...these wouldn't be easily possible with a small country like New Zealand [SP]*

From what can be seen in the statements presented by participants one can conclude that the factors mentioned here tended to be main triggers for migration. This is because participants clearly linked these reasons with immediately achievable career goals in Australia. For example, one participant was able to be involved in clinical trials by migrating to Australia.

### **7.1.2 Theme 2: Remuneration and pay packages.**

The theme of remuneration and pay packages arose out of statements raised by participants about remuneration itself and general working conditions. Participants thought that all these mentioned issues were better in Australia than in New Zealand. A summary of this theme and subtheme is given in Figure 19.

Theme	Sub-themes
Remuneration and pay packages	<ul style="list-style-type: none"> <li>Remuneration and pay packages</li> </ul>

Figure 19. Theme of remuneration and pay packages.

#### ***Subtheme 1: Remuneration and pay packages.***

Remuneration and pay packages were said to be a major issue in the New Zealand medical workforce. This was even highlighted as a main trigger for migration. Participants also cited the related packages which they said were a lot better in Australia. They mainly cited the advantage of having salary packaging, and other non-income benefits. Salary packaging in Australia means that medical practitioners can pool together non-income benefits and claim reductions in taxation.

In terms of remuneration, participants thought that remuneration in Australia is not comparable to remuneration in New Zealand by a long way.

*Financial remuneration is number one [MP]*

*The salary in NZ is a joke [MP]*

In addition to mentioning preferred methods of remuneration such as hourly wages, participants also referred to benefits in Australia that included superannuation and financial support for professional development. The financial support mentioned was not limited to CPD only but protected teaching time and also support for medical registration.

*While I was working my salary was not of today' level but there was and is a markedly improved chance to save thru superannuation and salary packaging is now well established with guaranteed professional development on an annual basis by right and not by lottery and luck [SMO]*

*Holiday pay increases by 17% and it's called holiday loading. All this by right and not by begging as in NZ. The taxation and superannuation are important to older doctors. In Australia radiologist are in short supplies. There are full time radiologists in hospital and when I work in hospital the hospital pays the practice and not me as an individual. [SP]*

Some participants also spoke about preferred methods of remuneration. These methods included being paid hourly wages and preferences for fixed salaries.

*If you prefer you can get paid an hourly wage in Australia [SP]*

*Australia is ...better, as you ...paid salary plus on call, not a fixed salary.[SP]*

While it could be argued that these could be personal preferences it must be noted that such personal preferences add to the aggregate of factors that contribute to job satisfaction.

Participants also mentioned issues that seemed to arise from Australia's diverse environments in which medical practitioners can work. According to participants, some of these environments offered very diverse remuneration and other salary packages such as mobile phones and cars.

*Medical registration –all of my registration I can get tax deduction. E.g. I belong to specialties. Health department - has attractive packages that add to your salary package. And with my employer I get home phone, mobile phone, computer and a car add this extra to salary and have total value of your package. [SP]*

As can be seen above, some of the packages appear to have been from the health department and not individual employers. This shows that if these packages are not for all government employees then the Department of Health has made an effort to convince other policy makers that medical practitioners are a special group of workers.

### 7.1.3 Theme 3: Working conditions.

Theme	Sub-themes
Working conditions	Working conditions

Figure 20. Theme of working conditions.

#### *Subtheme 1: Working conditions.*

On citing issues about working conditions the most mentioned issues were hours worked and the workload in terms of how much a medical practitioner works at a given time. Some participants specified whether they were talking about issues at junior level or issues at senior level. Participants tended to specify that these are better in Australia than in New Zealand by a significant scale.

The issues concerning working hours included the fact that participants felt that there was no corresponding pay for these. They felt that they were not adequately compensated for these long hours in New Zealand.

*Considerably better working conditions for junior doctors in Australia. Fewer hours, safer conditions, better penalty rates for on-calls and overtime. New Zealand is a long way behind. [MP]*

*Work hours excessive and paid not adequate [MP]*

Apart from hours worked, participants seemed to be concerned about how on call work was organised as well as how shift works were organised. It seemed that some felt that these were taking up much of their personal time. The number of patients a medical practitioner attended to per day was also an issue.

*The on call was much better and a lot more progressive - not 12-day shifts, no double shifts in a 24-hr period, you get a few days off after nights etc [MP]*

*Everyone industrial awards eg 5 weeks annual leave. In Australia if someone cross-over easy if side. Protected teaching time. Less cover to do course, in Auckland.*

*In NZ I had 20-30 patients per day and no breaks and time.[MP]*

*...There was so much pressure in the NHS....I worked ridiculous hours in very complex situations such as attending to gunshot wounds....when I arrived in*

*New Zealand I felt semi-retired and I loved it. I had that there is even better choice / flexibility of hours worked in Australia....then I migrated [SP]*

The above issues could have been dependant on the work setting in New Zealand. For example, on call hours differ between rural and urban DHBs in New Zealand. Given the diverse environments of Australia one would expect that on call hours would differ there also.

#### **7.1.4 Theme 4: Management and collegial relationships.**

Under this theme participants mentioned issues about relationships with management and colleagues, as can be seen in Figure 21. Most participants tended to think that managers generally have bad relationships with medical practitioners. Participants also cited issues about relationships with their colleagues as well as issues about support from colleagues.

Theme	Sub-themes
Management and collegial relationships	<ul style="list-style-type: none"><li>• Management</li><li>• Collegial support and relations</li></ul>

Figure 21. Theme of management and collegial relationships.

##### ***Subtheme 1: Management.***

Management and administration seemed to be a factor in influencing participants to make decisions to migrate. Participants tended not to like the management styles adopted by some managers. Some thought that there were administrative structures that they were not happy with while others thought that the relationship between managers and medical practitioners were bad.

*There is issues about...non-medical governance, aggressive oversight from non-medical parties, ..... [SP]*

*....more independence from managers, less middle management, more professional respect[SP]*

*More influence in the running of our departments and services. [SP]*

Among those who thought Australia also had bad managers were some who felt that in Australia they were comparatively not as bad as New Zealand.

*Management and administration is equally bad both NZ and Australia. [SP]*

*Although there are bad managers in Australia too....they are better than NZ ones because here you can have your clinical autonomy.[MP]*

From one of the statements above it can be seen that medical practitioners could be feeling that management interferes with clinical autonomy.

***Subtheme 2: Collegial support and relations.***

Issues about collegial relationships and support were also raised. These related to the sharing of duties mainly. Senior medical practitioners felt that in New Zealand they could have been better supported by a good complement of junior medical practitioners. On the other hand, medical practitioners at all levels thought that they should be given administrative support to do non-clinical work.

*Possible amount of administration...decline in administration assistance e.g. secretaries for routine staff e.g. budgetary management go to head of department these are like accreditation. [SP]*

*We needed...more junior doctor support [SP]*

*Better provision of suitably qualified doctors at a junior and consultant level so that I wouldn't be spending all my time getting flogged in a public hospital without appropriate support. (e.g. running around doing registrar work because hospital admin don't recruit enough junior Drs. Being on call all the time because there aren't enough consultants, having to cover gen med as well as specialty area etc)(sic) [SP]*

Some issues above seemed to be related to staffing shortages. Some medical practitioners ended up performing duties that they thought were ideally not theirs to perform. For example, one of the participants stated that he ended up doing duties that were outside his speciality.

It is also important to ascertain whether the statements said above were about the general trends about management and collegial support issues or were opinions arising from variations in conditions that medical practitioners might have been exposed to.

**7.1.5 Theme 5: Health system, government policies and registration factors.**

Under this theme issues relating to the health system, government policy and regulation factors were raised. These issues were raised as areas to be targeted by the New Zealand government if it is to make improvements on the retention of medical practitioners. A summary of all subthemes under this theme is presented in Figure 22.

Theme	Sub-themes
Health system, government policies and registration factors	<ul style="list-style-type: none"> <li>• Government policies</li> <li>• Student loan policies</li> <li>• Health system</li> <li>• Regulations and registration issues</li> </ul>

Figure 22. Health system, government policies and registration factors.

***Subtheme 1: Government policies.***

Participants referred to government policies in a general sense and also specific financial policies such as taxation. The participants thought that the government failed to use financial policies to retain medical practitioners and also to make the country's image look good.

Some participants spoke of failure of integration of immigration policies and health workforce retention policies.

*NZ have failed to obtain good image because of short sighted migration policies. Good quality imgs are more globally mobile. Because NZ does not make enough graduate and they are cheaper. So thats what NZ must capitalize on. When they come as generalist they must be offered vocational training and then make efforts to retain them. I was not offered vocational training and hence I left (sic)[GP]*

As will be seen in the discussion chapter, Australia actually has a policy on offering vocational training for IMGs, especially those in the general scope of practice.

Participants spoke of taxation policies in terms of the rate of taxation and also tax incentives as well as packages such as superannuation. Some participants even thought that taxation policies were unfriendly in New Zealand.

*[In Australia]if you join [superannuation] you only pay 15% tax.[MP]*

*With the smaller salary NZ can still compete by making other conditions attractive e.g. the attitude of the taxation should factor in migration issues. [SP]*

*The tax department attitude in NZ it can be 5% but here its 9% and some practices can be doubled. self managed superfund there in Australia this is attractive although there are shifts and regulations. Inland revenue should liaise with M.O.H. on such issues (sic) [SP]*

It is noteworthy that the above participants tended to use the word 'attitude' consistently mainly pointing that it was a question of the general outlook of the government rather than taxation pragmatics. The quote below adds to the researcher's interpretation that probably the participants were more concerned about what they perceived as attitudes.

*MORE Rational approach to health care for whole country -decrease influence of parochial interests -NZ population too small for parochialism (sic)[GP]*

Participants also thought that the government in New Zealand does not provide enough funding for the health system. Some participants did not specify what that funding was in particular. However this seemed to be an issue as quite a few of the participants raised it.

*Funding – underfunding in Australia but better than NZ of course.[MP]*

*The government should show commitment to funding health care as this leads to many restrictions in practice resources[MP]*

*More money put into bureaucracy than on medicine in NZ[SP]*

As can be seen in one of the statements above it seems the problem of funding is not only limited to New Zealand but also to Australia. However, the participants seemed to think that the issue is worse in New Zealand than in Australia. Another important thing arising from what the participants said is the fact that it seems a lack of funding results in practitioners having some restrictions on resources.

### ***Subtheme 2: Student loan policies.***

Another policy issue that was raised by a number of medical practitioners was student debt. These participants felt that student debt was too high and that the burden of student debt should be shared by all social parties. They thought that the government should show some generosity towards repayment rates. Participants also felt that the issue of the student loans should be taken seriously by the government, especially in terms of making specific policies that target retention of medical practitioners.

*...VERY LARGE student loan accumulated from 1st year (PLUS interests) which I felt really set me back in terms of setting my career and life up. I knew that in Australia the exchange rate was better so I could send more money home to pay my loan off And also, for a very childish reason, I felt a bit entitled given that I had paid NZ government ~\$100,000 of my money for loan plus a 7% interest, they shouldn't be allowed to make me pay high taxes too when I am qualified- that is a double-whammy and not very fair!! (sic)[SP]*

*I left to seek more money to pay off student loan [MP]*

*I saw my friends leaving and paying back student debt within months and I could not resist the temptation of leaving too [MP]*

From what has been said above it can be seen that the student loan is a push factor in New Zealand that is not only considered in decisions to migrate but as a major trigger of such decisions.

### ***Subtheme 3: Health system.***

Participants mentioned issues related to the health system which included structural and administrative issues such as private and public practice for medical practitioners. Other issues mentioned by these migrated medical practitioners were operational in nature such as the way some health programs are administered and run, such as cancer programs.

In the issue of the private and public practice of medicine participants felt the way things are undertaken tend to be different between Australia and New Zealand. The participants thought that there are disadvantages in each of the systems. Some participants liked private practice while others seemed not to like it. They thought that New Zealand emphasises public practice while Australia emphasises private practice.

*Have so many reasons not working in NZ. Worked in America as a medical student and did not like especially emphasis on private insurance and long hours... but in NZ on the other hand private practice is minimal [SP]*

*In NZ hard to go into private practice limited because of control. [SP]*

*In Australia it's easy because of Medicare [SP]*

Those participants who did not like private practice tended to think about the public good while those who liked it wanted to have it for the sake of maximising their own income. Another thing to note from the above quotes is that the participants who preferred private practice were those who worked as specialists.

*The conflict of interest around being permitted to participate in private practice when working in the public service should be removed. More full time surgeons should be appointed in public hospitals to concentrate on care of public patients. [SP]*

*There is a conflict of interest with regards to colleagues in public service and their being allowed to participate in private practice - it is being abused. Surgeons in particular are abusing the situation hence the long waiting lists. [SP]*

Other issues raised by participants tended to be about services for patients, in particular those requiring specialist services. Participants tended to be concerned about delays. These delays appeared to relate to specialist services. While participants mentioned

issues about delays in waiting lists in New Zealand this is in the context of one of election goals of the ruling national government which was to reduce waiting lists in specialist services. These have also made headlines in the public media, for example in an article by (Donnell, 2011).

*Waiting lists for cancer patients should be reduced to acceptable standards - its appalling what's going on in rural NZ. [SP]*

*Long waiting lists for cancer patients and lack of desire for colleagues in the clinical specialities to rectify this situation despite us as pathologists providing a 24hr turnaround time for diagnostic services. [SP]*

*There is a need for Structural change to the operation of the National Cervical Screening Program. [SP]*

The above quotes could be taken as expressions of frustration. The participants were mainly concerned about delays in as far as they affect patients and themselves in their professional lives. It seems that if the above problems were dealt with by getting significant input from the medical practitioners their feelings would probably be different as can be seen in the quote below;

*District health boards have absolutely no idea of how to run a health service - senior consultants have very little influence in how best to improve the service and when asked our advice is ignored more often than not. [SP]*

It seems the medical practitioners may have tried to make attempts to influence decisions about health systems but levels of frustration are expressed as can be seen in the above quote.

#### ***Subtheme 4: Registration and regulation issues.***

Under registration and regulation issues it seemed that of particular concern were issues around registration as a medical practitioner when one is an IMG, and issues of registration when one wants to sub-specialise in a particular area in medicine. Other issues were about the ease of navigating the registration processes.

Difficulties in branching into sub-specialities were said to be arising from the fact that some fields are jealously guarded by those who are already in control. This has also been reported in literature as a political character of professionalisation where Totton (1999) says professionalisation is also about protecting the interest of a few individuals by jealously guarding entry into the profession.

*In Auckland.... Opportunity to branch into sub-specialties of radiology was jealously guarded by those who thought they are the only ones to report on the area. So i had to leave! [SP]*

*Not unique to Auckland, but Wellington & Christchurch I suspect that applies to ophthalmology control tight both private & public and if they want they can ban you and control the market. It happens in surgery controlling the territory. [SP]*

*Also because of this tight control of territories in radiology if they don't like then you will never even have the opportunity to buy into private practice. You become left with no option but to look elsewhere...in another country...this is what I did [SP]*

Issues of concern about branching into subspecialties seemed to be a trigger of migration rather than being just one of the factors to be considered. This can be seen as most of the participants above stated that they were left with no option but to leave.

There were also some participants who were IMGs who indicated they left because of the difficulties they faced when they tried to get registered. These difficulties were about financial assistance and preparatory courses for registration as medical practitioners.

*Unable to register...and I left to Australia and here i am practising [GP]*

*Not getting Job as Dr in NZ in 2006 [GP]*

*.....registration process was unreasonable/ I could not see the end of it. I could not practice under any condition [GP]*

Other participants specifically mentioned that in Australia there is financial assistance with exams and courses.

*No assistance to sit NZREX... my colleagues told me that in Australia you get assistance and I left and I was assisted [MP]*

*Excellent reception of IMGs and help with exams in Australia while in New Zealand there was no chance [GP]*

Indeed in Australia different states have different schemes and programmes available to assist IMGs to register.

Some participants in very few instances mentioned that they had issues even though they had Australian qualifications.

*Timing of medical job applications and process of moving back to NZ with an Australian medical qualification was inconvenient and difficult to navigate. [MP]*

The above instances could have been more about individual expectations and experiences because Australia and New Zealand have a mutual registration agreement on basic medical qualifications.

The most important thing to note about the subthemes above is that some policy issues, such as student loans, have wider implications as medical practitioners subsequently ended up leaving New Zealand. Issues about registration as IMGs and also registration to sub-specialise seemed to be conditions resulting in the decision to migrate rather than being just some of the factors contributing to the decision.

### 7.1.6 Theme 6: Family, social and personal factors.

Under this theme participants mentioned social and economic factors that were considered before they made decisions to move. These are summarised in Figure 21. These included social factors, the economy and how it is managed. Family and personal factors were also cited as factors that were considered by participants when they made decisions to move. Complex personal factors that were unique to some individuals were also mentioned as having necessitated movements to Australia.

Theme	Sub-themes
Family, social and personal factors	<ul style="list-style-type: none"> <li>• Social factors</li> <li>• Economic factors</li> <li>• Family factors</li> <li>• Personal and environmental factors</li> </ul>

Figure 23. Theme of family, social and personal factors.

#### ***Subtheme 1: Social factors.***

Social factors that were related to attitudes and race relations were mentioned by the participants. Issues associated with the general social environment were also mentioned. These included the political environment where the participants stated that they dislike some political ideologies.

Participants mentioned attitudes which they referred to as the small mindedness of New Zealanders as a society. They also specified issues about attitudes such as the way foreigners are treated.

*Need to get out of New Zealand which I found too small minded, and cold - if not Aus I would have gone somewhere [SP]*

*NZ is too socially conservative [SP]*

In the above quotes it must be noted that the statements said were from participants who are from both English-speaking Western countries and non-English-speaking countries.

Participants also mentioned social factors that seemed to be linked to the decisions that are made by politicians about allocation of resources.

*...higher salaries/less taxation for those who work for a living and taxing speculators instead. That would primarily mean abolishing policies that unnecessarily increase the cost of housing, namely abolishing tax incentives for real estate speculation (negative gearing) and re-directing all that money into health and education. [SP]*

*Poor recognition by the community, politicians and health sector bureaucrats of the value and importance of the medical workforce [MP].*

Participants also mentioned issues associated with race relations in New Zealand. These issues included relations between Maori (Indigenous people) and New Zealand Europeans. There were also issues raised about relations between Europeans and Asians.

*Have some concerns over ongoing issues raised by Maori population. At times sometimes I felt like as a Pakeha I had less rights than Maori to live in NZ*

*NZ Europeans keep mentioning how they will be overtaken by Asians..thats small minded ...I am not an Asian though but it tells me the direction of thinking for the country. Apart from that good reception of migrants from Europe and US (sic) [SP]*

In addition to the above statement that discusses selective treatments of migrants with preference for those from European countries participants also spoke of their dislike of the general attitudes of New Zealanders to foreigners.

*Foreigners are not accepted well. They try to create hurdles. They tried to destroy my professional career ....as someone from Non-English speaking country... [SP]*

*People of NZ should change their attitude towards foreigners [GP]*

General opportunities were mentioned by participants and these tended not to be only professional opportunities but also other social opportunities presented by the nature of the size of the country. These opportunities include leisure activities, general adventure, community groups and sports groups.

*Leisure activities available. Other non-medical income opportunities available [SP]*

*Small size of my religious community [SP]*

*NZ is a small pond for adventure in new culture and countries [SP]*

It is worth noting that decisions made appear to be influenced by the size of the country and its associated opportunities.

### ***Subtheme 2: Economic factors.***

Economic factors were mentioned as an issue within the New Zealand social scene. These included the cost of living, the comparative standard of living and specifically the cost of housing and private school facilities. Participants thought that Australia compared favourably in regard to these.

*Lifestyle- the standard of living is higher in Australia. [GP]*

*House prices in Australia are attractive.[MP]*

*Private schooling is very cheaper in Australia. [SP]*

*Household expenses, cheaper in Australia.[GP]*

*The cost of living, especially housing was (is) too high. The government is far more interested in supporting landlords (property speculators), bankers and real estate agents than doctors. [SP]*

*Australian dollar stronger than NZ, economy strong, good healthcare [MP]*

In relation to the above statements, none of the participants said them with strong feeling or in a manner that would lead one to think that such factors were a major trigger to migration. It is therefore concluded that these factors were among the things that were considered before making decisions to move, rather than being factors that triggered migration.

### ***Subtheme 3: Family factors.***

Under family factors participants mentioned proximity to family members and also movements that were initiated by spouses. In this theme participants also mentioned movements that were initiated by the need to accommodate other family members such as children who were already grown up.

*It was mainly my wife's family living in Brisbane Queensland lifestyle appealing compared to Auckland lifestyle My wife grew up in Victoria and had all her family here. [SP]*

It is worth noting that for some participants the major decision to move was mainly initiated by spouses of both sexes. It would have been interesting to note what the trends would look like in a larger sample group, that is, whether there is a trend in spouses of one gender influencing spouses of a particular gender to move.

In some of the statements, especially below, it can be seen that the spouses were actually a major reason for making decisions to move.

*...my wife is an American and hence my wife did not want NZ but wanted Australia [SP]*

*Moved to Australia not because of money but because married a traveller (from US) who preferred Australia. [SP]*

*Wife wanted a move and it had to be done sooner than later [SP]*

*...[male]...partner, also a newly graduated doctor, was moving to Australia (her family is in Australia).[MP]*

*I have always worked in Queensland since then. My wife is an American citizen, and did not wish to stay living in New Zealand. [SP]*

*My wife grew up in Victoria and had all her family here. Enjoyed cultural diversity in Australia [SP]*

In New Zealand particularly among medical practitioners there is a new body of knowledge emerging that points to the necessity of factoring in marriage and the partnership arrangements of medical practitioners in workforce planning (Callister et al., 2008). This research concentrates on certain observed patterns of medical practitioners that tend to have preferences for marrying other medical practitioners or nurses. Nevertheless, it could be a starting point in furthering research on how decisions to move to another country are taken in such marriage arrangements.

Other reasons for moving were specifically about job opportunities for spouses. This is an important factor to observe because in a larger sample one would be interested in looking at the employment patterns of spouses and how they influence retention or migration of medical practitioners.

*Husbands job - unemployed in NZ, offered work in Australia (sic) [SP]*

*...Husband's career in a multinational company was the main factor [SP]*

*...a change More opportunities for myself and wife, Nicer climate Improved pay [SP]*

Further to the above decisions that were made considering the spouses, participants also mentioned decisions that were made to accommodate the movements initiated by older children.

*Eldest daughter high-ranking tennis player - came initially for her opportunities. Stayed because perception of great career opportunities[SP]*

*Kids moving away from Australia/home [SP]*

At this juncture, one apparent trend that can be seen is that participants' movements to Australia were linked to family members who were mainly spouses and also children. They, however, mentioned reasons for staying in Australia also as extended family members. As has been said above it must also be noted that moving to Australia because of family members tended to be a main trigger rather than just one of the contributing factors. It was also noteworthy that in all instances there were examples of both female and male medical practitioners speaking of having moved because of their spouses.

#### ***Subtheme 4: Personal and environmental factors.***

In addition to family factors, participants mentioned personal factors that were related to life circumstances and preferences. These included the desire to travel and adventure into the unknown world. For some it was particular kinds of weather and climate conditions.

Other participants just listed personal preferences that were not specified, for example;

*...had been in charge of radiology in a Boards area and in that time had responsibility to build and commission 3 departments. Rapid and not always useful changes in administration increased stress Was tired and realised I was losing enthusiasm which is essential and thus thought I would step down and try to work as a member of staff but was still too close and there was a move to make me Chairman. This in conjunction with a marriage breakdown made an escape from the system.. Had done holiday locums in Aust and became employed in one of these with public and private responsibility. Had bought back super and had 38 years service [sic][SP]*

*...was an Australian medical graduate who took up the Foundation chair in Child Health Research in Auckland. My reasons for returning to Australia after 3 and a half years were entirely personal, not professional. [SP]*

*Apart from the personal factors, I was entirely happy in NZ[SP]*

Some personal preferences were related to weather and the love of scenery. Participants thought that these were better in Australia than in New Zealand.

*Warmer weather i.e a warmer climate with predictable sunshine[SP]*

*Weather was a factor close to NZ (work in Australia) [SP]*

*Weather is a big point in Gold Coast it's fantastic. [SP]*

Indeed the above are personal preferences. It was especially seen in the first sub-project that participants felt that the scenery was good in New Zealand. The only thing that the participants did not mention in the first sub-project was weather features such as sunshine or warmer climate.

The personal preferences that resulted in the medical practitioners making decisions to travel also included those factors that were related to the general desire to travel and see the world.

*I chose to come here because I heard how relaxed it is and this is what it is and it gave me the opportunity to travel[SP]*

*A large part of it was because of my divorce and need to experience travel/adventure. [SP]*

*I needed to take the road less travelled, as an opportunity for personal growth and Challenge[SP]*

Some of the personal choices were related to prestige associated with gaining experience and qualifications overseas. In the case of gaining fellowship in Australia, it was probably mainly about experience because fellowship colleges are shared between New Zealand and Australia. Participants also mentioned personal choices such as the belief that qualifications from the UK and the US are superior.

*Although I chose to migrate here in the first instance..... I might go for fellowship either in the UK or to the US because I hear they have an environment superior to here [MP]*

*There is more credence about being overseas for fellowship so I came here [MP]*

It must be noted that part of what one participant said was really a question of personal preferences. The participant himself was unsure of what the facts were about superiority of fellowship qualifications in the mentioned countries.

#### **7.1.7 Theme 7: Push factors and intentions of returning to New Zealand.**

Participants were also asked a specific question about push factors in Australia and intentions of returning to New Zealand, if they had any. It was noted that the majority of

participants did not mention major issues as push factors but rather issues related to personal views about their expectations of how social life should be in Australia. The majority of participants also had no intentions of returning to New Zealand. The summary of subthemes under this theme is presented in Figure 24.

Theme	Sub-themes
Push factors and intentions of returning to New Zealand	<ul style="list-style-type: none"> <li>● Push factors in Australia</li> <li>● Intentions of returning to New Zealand</li> </ul>

Figure 24. Theme of push factors and intentions of returning to New Zealand.

***Subtheme 1: Push factors in Australia.***

Participants also mentioned a few things about push factors in Australia. It must be stated at the outset that although there was a specific question in the research prompting them to say things they do not like about working or being in Australia, few participants mentioned push factors in Australia. The few push factors identified were around the area of the health system, regulations, lifestyle in cities and some social issues like race relations.

*The only negatives about Australia are external to the practice of medicine - poor race relations and not as beautiful a country as NZ. I remain a proud Kiwi. This is an important survey to conduct - Good luck [SP]*

*It is not 'home'. Terrible race relations status/treatment of aborigines [SP]*

*Aboriginal families' social status but not different from NZ Maori [SP]*

Some issues mentioned were generally about the lifestyle in Australia. Most were issues associated with being in big cities. These issues included house prices and traffic congestion.

*TRAFFIC/EXPENSE/CRIME/DRUGS IN BIG CITIES - THENEED TO LIVE IN A BIG CITY TO PRACTISE SUBSPECIALITY MEDICINE. [SP]*

*City congestion and house price [MP]*

*Sydney house prices [SP]*

Some participants mentioned difficulties working in a system divided into states. Some participants stated that the issues were with division while others did not state what the issues were.

*Funding – division of country into state and territory is problematic when dealing with employment issues[SP]*

*Federal / state level duplication in government. [MP]*

*Division of health management into states..NSW health are starting to really annoy me. The current govt doesn't seem to have any coherent plan, but that will change, I expect. [SP]*

Other issues mentioned related to regulation of practice, for example, litigation and registration.

*Litigation possibility of criminal proceedings (with punishment by jail) now against doctors following the recent Patel case.*

The participants might have mentioned litigation because of having worked in New Zealand in a non-litigious environment. This is because of two pieces of legislation; the Accident Compensation Corporation Act which contains instruments about free compensation to accident victims, and the Health and Disability Act 2004 which is a no fault dispute resolution system.

Some issues seemed to be about the health system and how care is administered. These included funding, government control or intervention in medical governance and also the general models of practice.

*Some aspects of caring for patients are not well organised i.e. Care Planning, Mental Health care plan and Antenatal Shared Care. In this respect perhaps New Zealand's system is better. [SP]*

*....medicare redtape is an issue [SP]*

*Increasing government control over general practice [GP]*

*Variable standard of medicine, focus on business model rather than medical. [GP]*

*Radiology workload is greater in Australia. More emphasis on 'patient numbers' here due to fee for service. Over investigation of patients in Australia due to rebate system and concern about 'missing things'. Appropriate investigations not always done initially due to medicare funding issues and inferior and less appropriate tests done instead, i.e. Lumbar spine CT over ordered when MRI would be a better test. [SP]*

It is noteworthy that participants did not mention practical issues such as salaries and working conditions. The issues mentioned above seem to be philosophical rather than pragmatic day to day living or working conditions related problems. An analysis at this level would therefore lead one to conclude that medical practitioners do not seem to regret having moved and therefore one might even say they have a preference for settling in Australia.

### ***Subtheme 2: Intentions of returning to New Zealand.***

This subtheme involved statements expressed by participants about intentions to return. It was found that some participants had already made up their minds about not returning, while some were still undecided. Some seemed to be flexible while some wanted clear changes made before even thinking about returning.

Below are the views of participants who seemed unlikely to return. Some gave reasons to justify their stands while some did not.

*At the time I moved, the registrar salaries were about 40% higher in Australia, and the tax system is more favourable (lower tax, salary packaging, family benefits even on "high" income, etc.). Salaries for Pathologists are higher in Australia, so I am likely to stay rather than go back. [SP]*

*Almost nothing can make me return [SP]*

*My parents are now deceased, I no longer visit NZ as often. When they were alive, I visited NZ at least yearly. [SP]*

*No suitable job ever became available in NZ to allow for appropriate and early return. Once your children are born in Australia, it becomes increasingly difficult for the family to return to NZ. [SP]*

Some participants seemed to have made up their mind about not returning even before they left New Zealand.

*...nothing. I left NZ with no desire to ever return. [MP]*

*I never planned on returning[MP]*

Some participants expressed statements that showed that it was practically impossible to attract them back to New Zealand. This is because they gave convincing reasons why they cannot return. The reasons for not returning included the fact that most of them were at the end of their career and another reason was that most of them said that they have already established families there.

*The financial difference in base salary for specialists has now grown so large, that a return later in your professional career would see you at a serious disadvantage for retirement and superannuation. [SP]*

*Very unlikely anything will after 11 years away. Would have to be a higher salary + benefits than I have now +/- total write off of student loan[SP]*

*At the end of my training now in Australia: there is no incentive to return to NZ as I can work an equivalent job with fewer hours for considerably better pay as a consultant. [SP]*

In addition to the financial incentives related reasons given above for not returning, participants also mentioned family reasons. Participants indicated either that they cannot return because they were already established with partners, or their children are already established.

*I am nearing the end of my career. I have enjoyed working as a GP in Australia. I now also work half time as a medical educator. All my professional and social networks are here. [SP]*

*Practically impossible to return for so many reasons[SP]*

*None now - our family is settled here in Australia after 12 years[SP]*

*Too late now - children are established as am I. [SP]*

*I'm now married to an Australian with Australian children & with business ties to Australia, hence unlikely to return. [SP]*

The statement about superannuation points to the need to accommodate even late career medical practitioners in designing strategies for returning back. These may include buying back superannuation. According to anecdotal evidence from these participants buying back superannuation is possible in Australia.

Some participants seemed to be amenable to persuasion to return as they seemed to have specific things that they want improved before they return.

*Not until changes are made [MP]*

*Will consider in future if salary discrepancy not too large [MP]*

*Remuneration needs to be more in line with Australia. Would accept a pay cut to go home but currently this is 50% ! May choose to go home when children are school age to see educated in NZ[SP]*

*Reasons that can make me return are Bonus for ex-graduates to return Salary-packaging like they have in Australia to reduce tax rates- otherwise, it would be the same as before- pay fees + interest + high taxes!! [SP]*

*Apart from Family reasons Improved conditions, pay/professional development If NZ was to become more prosperous and competitive[SP]*

*Improve all the above, pay us competitive salaries and I will consider returning. [SP]*

*Thank you for doing this survey. It is a huge issue for NZ. So many of my medical school and radiology colleagues are now in Australia, and I imagine most of them won't go back until certain changes are made[SP]*

Other statements said participants showed that there was an opportunity for the government or workforce experts to have attracted them back but now it's too late to uproot them.

*I left to practice adult HIV medicine because in the early 90s this was a very limited speciality in NZ. I intended to return but the opportunities in Australia, the excellent salaries, marrying an Australian and the similarities in culture have kept me. This is an important survey to conduct - Good luck[SP]*

*Having been away for an extended period and integrated into the Australian workforce, it is extremely unlikely most people will ever go back, i.e. If the NZ government wanted to hold onto to graduates long term it would need to make early post-graduate work more attractive, i.e comparable salaries & conditions to Australia. [SP]*

A few participants who indicated that they will be returning still seemed unhappy about some conditions. It also appeared that they were returning because of chance and not significant changes in the reasons why they left. Also in the statements made about returning there were no signs of the link between return and specific government initiated return policies.

*Am returning to NZ next year as I like the lifestyle and the type of job I wanted came up. Realise will be paid about 30 percent less however...[MP]*

*Am only returning because I am adventurous. I still need to experience other parts of New Zealand where I have not been....South Island [MP]*

The above statements showed an element of flexibility in the decisions taken to return.

It was interesting to find that a couple of participants expressed the feeling of guilt about having left. One of them felt that the government is even obliged to impose penalties.

*Although I feel guilty that I left I feel I did my best to stay and paid my debt. I am pleased you are doing this study. I feel very bad I left NZ but this study must be presented to the powers that be. [SP]*

*If the government imposes penalties about my leaving I will happily honour them. [SP]*

From the statements above, it seems that medical practitioners who have migrated to Australia have varying intentions about returning back. There are those who have made a stand not to go back, those who are flexible in their intentions, and those who can return when certain changes have been made. If the workforce experts are to implement the return policies, such initiatives must target these groups of participants separately.

## **7.2 Summary and Conclusion of Sub-Project Two Results**

Chapter 7 has presented qualitative results of sub-project two. There are three major things to be noted about these results. Firstly, there is an overlap of themes between sub-project one and sub-project two. Where there was no overlap of themes it did not necessarily mean that there were differences in the opinions of medical practitioners from two sub-projects about issues affecting their working conditions. Rather, the reason could have been difference in the way the questions were phrased. Secondly, it has been seen that family factors, remuneration factors and factors related to training opportunities seem to be the major factors that necessitate migration. On the other hand, working conditions, climate and personal factors seem to be part of an aggregate of factors that are considered when medical practitioners make decisions to migrate. In the discussion section a clear distinction will therefore be made between factors that necessitate migration and factors that are considered when making decisions to migrate.

The next two chapters will be the presentation of quantitative results from a survey questionnaire administered to participants based in New Zealand and medical practitioners working in Australia respectively.

## **Chapter 8: Presentation of Sub-Project One Results: New Zealand Participants' Survey**

### **Introduction**

This chapter presents the results of the survey that was carried out in New Zealand. This survey was mainly about the current state of the medical workforce and causes of the trans-Tasman migration and ways of improving workforce adequacy. As has already been stated in the methodology section in Chapter 5, the survey participants were medical practitioners based in New Zealand, and selected medical workforce planning key workforce experts and experts (hereafter called workforce experts). The following sections in this chapter describe in detail the results of each question and the corresponding factor it explores. This is dealt with in regards to attitudes to workforce influences of medical practitioners' migration from New Zealand and perceptions of factors related to the medical workforce adequacy in New Zealand. Before beginning the presentation of results it is important to recapture the research questions that the survey sought to investigate.

The survey sought to answer the following two research questions:

- What are the dominant characteristics of the New Zealand medical workforce scene and how do these contribute to issues related to adequacy and migration to Australia?
- What are the opinions of medical practitioners and other key workforce experts about causes and ways of managing medical workforce migration from New Zealand to Australia?

Participants answered questions related to medical workforce issues in a Likert scale, with response options ranging from strongly agree to strongly disagree. The presentation therefore compares how the participants were spread among the categories which were: 'strongly agree'; 'agree'; 'disagree'; and 'strongly disagree'. The neutral category of the Likert items was the 'mixed feelings' category. The results in the following section are presented question by question. Although the participants were from different DHBs and of differing levels of seniority, the lower numbers of participants surveyed meant that the statistics would have made little sense if the responses were to be broken down by either categories of seniority or DHB name. The presentation therefore only shows the overall numbers. It then presents these overall

numbers by medical practitioners' group ratings only and workforce experts' group ratings only.

The chapter concludes by indicating the questions that were answered in ways that were different from the other questions because they asked for open ended responses; and also discussing the insights that emerged from the results.

As a prelude to the presentation of results, the demographic information of the participants is presented below.

## **8.1 Demographic Information of Participants**

As has been stated earlier on in the ethics section of this work, demographic information of participants sought was limited as two ethics committees required the removal of age, sex, and number of years in New Zealand as a condition of accessing participants. The information sought from participants related to the DHB affiliation and other portfolios held by the participant, such as being a researcher and being a medical educator or mentor. It is important to mention that medical practitioners from all sample DHBs were at both junior and senior levels of employment. The total number of respondents was 114; of which 104 were medical practitioners and 10 were workforce experts.

### **8.1.1 Non-medical practitioner workforce experts.**

There were a total of 10 non-medical practitioner workforce experts who responded to the questionnaire. These workforce experts included five who had a national workforce planning portfolio in government or in private organisations. The demographic and workplace details will not be mentioned, due to the conditions specifically required by the ethics committees. Four participants had research portfolios specific to the medical workforce. These participants were specifically selected because of their reputation in publishing in refereed journals on issues related to medical workforce adequacy in New Zealand.

There were also three human resource managers in three DHBs who also answered the survey. These managers were not necessarily from the DHBs where the medical practitioners were sampled from. In addition, there were two politicians who were selected because of their known influence and input into workforce issues and also into discussions about the general trans-Tasman migration. Table 30 shows the portfolios of workforce experts.

Table 30  
*Portfolios of Workforce Experts*

<b>Workforce Portfolio</b>	<b>Number</b>
National health workforce planning portfolios	4
Research portfolio specific to medical workforce planning	4
DHB Human resource planning and management	3
Politician with health workforce planning portfolio	2

### **8.1.2 Participants with a research portfolio.**

In the section on participants’ demographics, participants were asked to indicate whether they had a research portfolio or not. As shown in Table 31 below, among a total of 114 respondents, who included medical practitioners and workforce experts, 27 participants indicated that they have a research portfolio, while 85 participants indicated that they do not. The participants who indicated that they have a research portfolio also included workforce experts whose jobs were mainly research or dealing with workforce planning. This question was asked as the writer assumed that research experience can be important to understand the impact of workforce dynamics to a health care system. Table 31 shows the breakdown of participants by numbers and the associated percentages.

Table 31  
*Participants with Research Portfolios*

<b>Is research part of your portfolio?</b>	<b>Frequency</b>	<b>Percent</b>
No	85	74.6
Yes	27	23.7
Total	112	98.2
System Missing	2	1.8
<b>Total</b>	<b>114</b>	<b>100.0</b>

### **8.1.3 Participants with medical education portfolios.**

Participants were also asked if they had medical education portfolios. Of the 114 participants (who included workforce experts), 66 (58%) indicated that they have medical education portfolios as part of their roles. The medical education portfolios included those who teach in medical schools and specialists who have roles of mentoring trainee medical practitioners. Table 32 shows the spread of participants and the associated percentages.

Table 32  
*Participants with a Medical Education Portfolio*

<b>Are you a medical educator?</b>	<b>Frequency</b>	<b>Percent</b>
No	66	57.9
Yes	48	42.1
<b>Total</b>	<b>114</b>	<b>100.0</b>

#### **8.1.4 How participants were spread across DHBs.**

There was also a question that asked participants to indicate the DHB with which they are affiliated. Out of the 114 respondents, 99 participants indicated the DHB with which they were affiliated, with 20 employed by the Canterbury DHB, 37 Waitemata DHB, 16 Bay of Plenty DHB, 14 Counties Manukau DHB (CMDHB), 6 Hawke’s Bay DHB and 8 Waikato DHB. Five participants did not indicate the DHB with which they were affiliated. Two of the DHBs are classed as large urban DHBs, another two were rural DHBs while one was semi-urban. Table 33 shows the breakdown of numbers according to DHBs.

Table 33  
*Participants’ Spread in Selected DHBs*

<b>Which DHB do you work for?</b>	<b>Description</b>	<b>Frequency</b>
Canterbury DHB	Large urban	20
Waitemata DHB	Large urban	37
BOPDHB	Rural	16
CDHB	Large urban	14
Hawke’s Bay DHB	Semi-urban	4
Waikato DHB	Semi-urban	8
Not Indicated		5
Not applicable		10
<b>Total</b>		<b>114</b>

The DHBs surveyed varied a lot in terms of the populations they serve and their geographical locations. The larger DHBs with similar populations are Waitemata DHB (the largest of all in the country), which has a population of approximately 525,000 people and is located in North Shore city of the Auckland metropolitan area; and Counties Manukau which is located in the South Auckland region and Canterbury DHB, located in Christchurch: both with a similar population of approximately 500,000 people. The Counties Manukau DHB is known for mainly representing the largest

Pacific Island population in the country. In the middle in terms of size in this sample was Waikato DHB, which serves a population of 363,400 and its main city is Hamilton. The smaller DHBs were Hawke’s Bay and the Bay of Plenty DHB. Hawke’s Bay DHB serves a population of around 155,600 people living in the Hawke’s Bay and the surrounding areas, while the Bay of Plenty DHB serves a population of 214,910, mainly in the city of Tauranga (National Health Board, 2011). A map of all the DHBs in New Zealand is shown in Appendix I.

## 8.2 Likert Scale Rating of Factors known to Cause Emigration

The first set of questions sought to survey participants on their views about factors that are known in the literature (Akl et al., 2008; Astor et al., 2005) to necessitate migration of medical practitioners. These factors included increased salaries, remuneration packages, training and continued professional development (CPD), workload, high expenses in medical schools, and family factors as can be seen in Table 34.

Table 34  
*Summary of Themes about Causes of Migration of Medical Practitioners to Australia*

---

Higher salaries
Remuneration packages
Training and CPD
Workload
High expenses in medical schools
Family factors

---

The following is a presentation of views of participants; beginning with the issue of higher salaries as a factor in emigration of medical practitioners to Australia. The discussion of the views reported will be presented in Chapter 10.

### 8.2.1 Higher salaries.

Participants were asked to rate how strongly they agreed with the statement that higher salaries in Australia are drivers of migration. Among the 114 participants surveyed, the majority chose the category of strongly agree. The mixed feelings category had one of the lowest choices compared with all the questions surveyed. There were also very few participants who chose the disagree category and the strongly disagree category. Overall, it is noted that the responses were concentrated on the agree categories and they diminished sharply towards the categories of disagreeing participants.

A look at the data of medical practitioners only reveals that among 104 respondents to this question the strongly agree category had the majority of participants (50%, n=52). There were few participants who chose the mixed feelings category. Most notable was the fact that there were no participants who chose the strongly disagree category.

Among the workforce experts group, the pattern of responses was also not very different; out of a total of 10 participants the majority strongly agreed. The numbers diminished towards the categories of mixed feelings and that of strongly disagree. Table 37 shows the associated numbers and percentages.

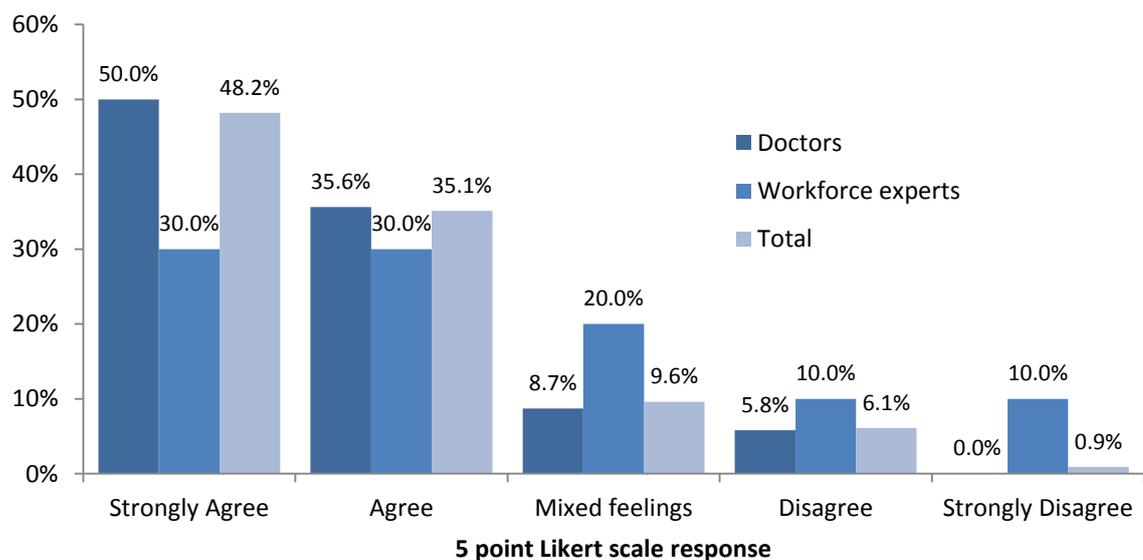


Figure 25. Respondents' degree of agreement that "higher salaries are a cause of medical migration to Australia".

As shown in Figure 25, overall the majority of participants seem to strongly agree that higher salaries are a basic reason for the migration of medical practitioners to Australia. One unique thing about the way this question was answered is the fact that, looking at all survey questions as will be seen later, this is the only question where in the larger group of medical practitioners, the majority of participants, chose the extreme response of strongly agree while on the other hand none of the participants chose the strongly disagree category.

### 8.2.2 Remuneration packages.

On the factor of remuneration packages such as allowances as a cause of medical migration to Australia, among the 113 respondents to this question the majority strongly agreed while another large proportion agreed. A small fraction of 1.8% (n=2) disagreed

while an even smaller fraction of 1% (n=1) strongly disagreed. Table 38 presents the levels of agreement to whether the factor of remuneration influences medical migration.

When the data was split according to groups similar patterns were observed where among medical practitioners the majority chose the agree category. There was a small number of participants who expressed mixed feelings, possibly meaning that generally participants tended to know where they stand with regard to the issue of remuneration packages.

Among workforce experts the majority tended to choose the milder of the agree categories which was: ‘agree’, followed by the strongly agree category. None chose the disagree category.

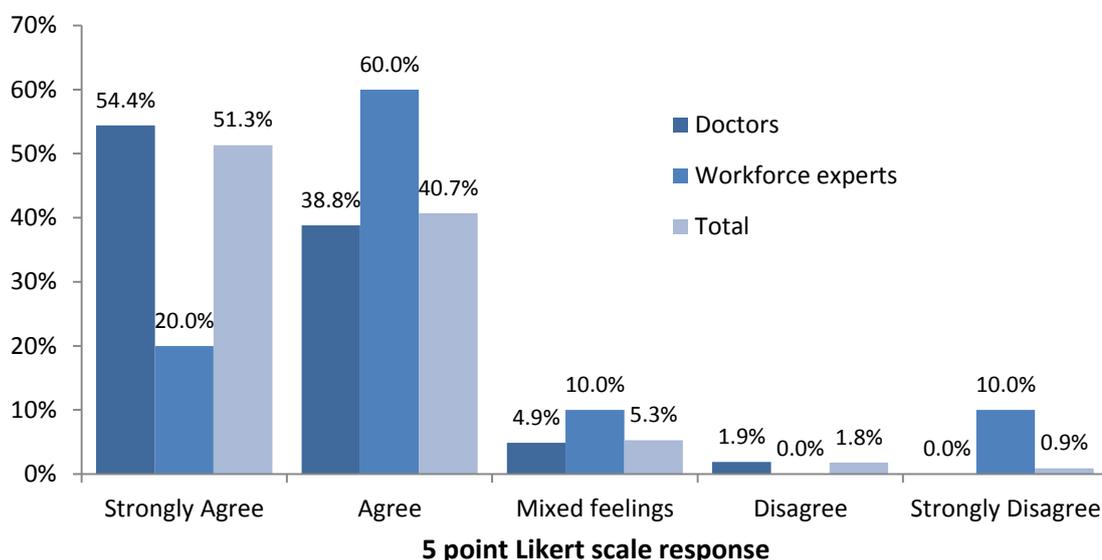


Figure 26. Respondents’ degree of agreement that “remuneration packages are a cause of medical migration to Australia”.

Overall, as shown in Figure 26, the majority of participants chose the strongly agree category while comparatively few chose the mixed feelings and the disagree categories. Although among medical practitioners the majority of participants chose the strongly agree category, among workforce experts the majority tended to choose the agree category. Figure 26 shows a summary of how the participants were spread in the Likert scale categories.

### 8.2.3 Training and CPD factors.

Participants were asked how strongly they agreed with the statement that training and CPD factors contributed to the losses of medical practitioners to Australia. Of the 114 respondents, the majority (50%, n=57) agreed to the statement.

Among the medical practitioners only group, the majority also agreed. On the other hand in the workforce experts group there was a strong feeling in support of the statement as 40% (n=4) strongly agreed. None (0%, n=0) of those participants disagreed or strongly disagreed (0%, n=0). Table 42 shows the full results for each response on the Likert scale to this question.

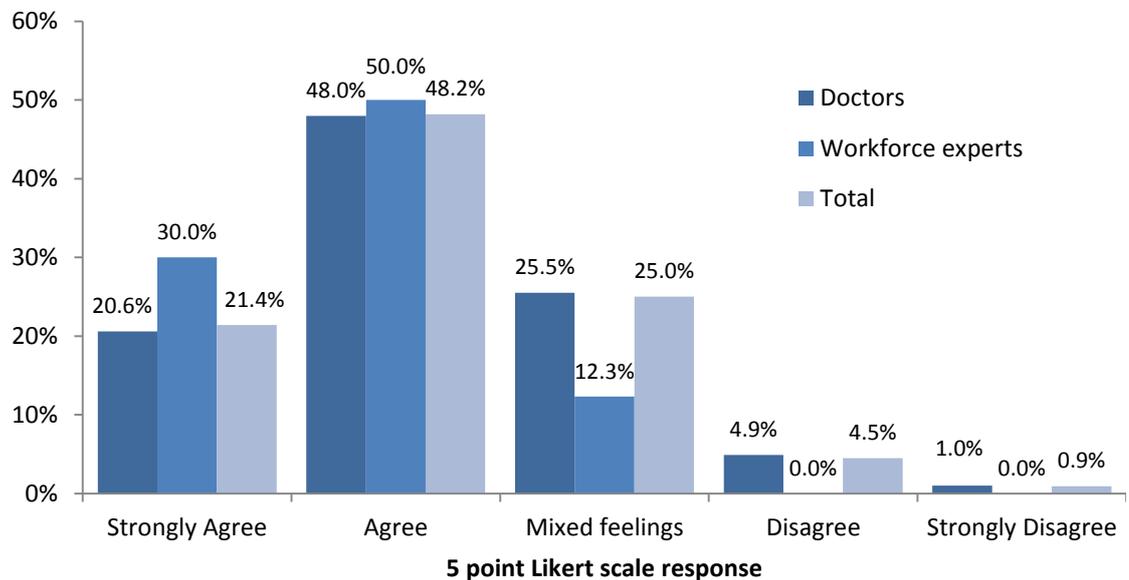


Figure 27. Respondents' degree of agreement that "training and CPD factors are a cause of medical migration to Australia".

It is noted from the results that while the majority of participants felt that the CPD was a cause of migration to Australia they tended to choose the moderate option of the 'agree' rather than 'strongly agree'. Figure 27 shows a summary of how the participants were spread in the Likert scale categories.

#### 8.2.4 Heavier workload in New Zealand.

Participants were also asked to rate how strongly they agreed with the statement that the heavy workload was a driver of migration of medical practitioners to Australia. Of the 113 participants surveyed, the majority of participants chose the agree categories.

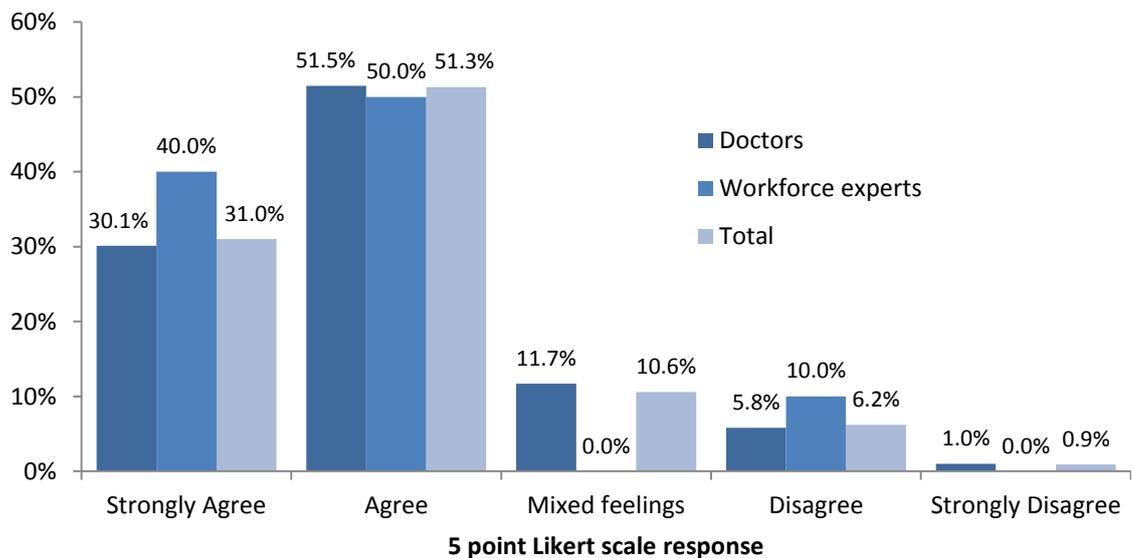


Figure 28. Respondents' degree of agreement that a "heavier workload in New Zealand is a cause of medical migration to Australia."

It is noted in Figure 28 that while the majority of participants felt that the workload was heavy, participants with this view tended to choose the moderate option of the 'agree' rather than 'strongly agree'. Figure 26 shows a summary of how the participants were spread in the Likert scale categories.

### 8.2.5 High expenses of medical schools.

On being asked to what extent participants agreed that medical school expenses tend to be high and therefore necessitate moving to Australia in order to recoup these expenses, of the 113 participants surveyed, the majority chose the agree categories.

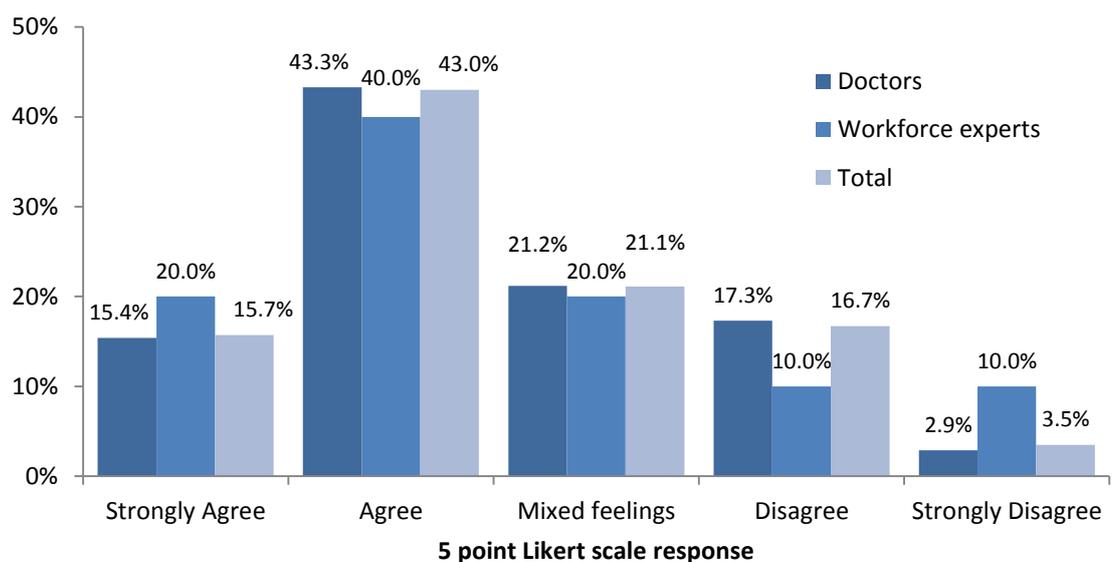


Figure 29. Respondents' degree of agreement that a "higher medical school expenses in New Zealand is a cause of medical migration to Australia".

Overall it is noted in Figure 29 that while the majority of participants agreed that medical school expenses are high there were still some participants, though very few, who believed that this is not the case.

### 8.2.6 Family factors.

Lastly, on factors that are a cause of migration, participants were asked to rate how strongly they agree with the assertion that family factors contribute to the movement of medical practitioners from New Zealand to Australia. Of the 114 respondents to this question, the majority either strongly agreed (28.8%, n=32), or agreed (42.9%, n=50) with that statement.

In the category of the 10 workforce experts, notable is the fact that there were no participants who chose either the ‘disagree’ or the ‘strongly disagree’ category.

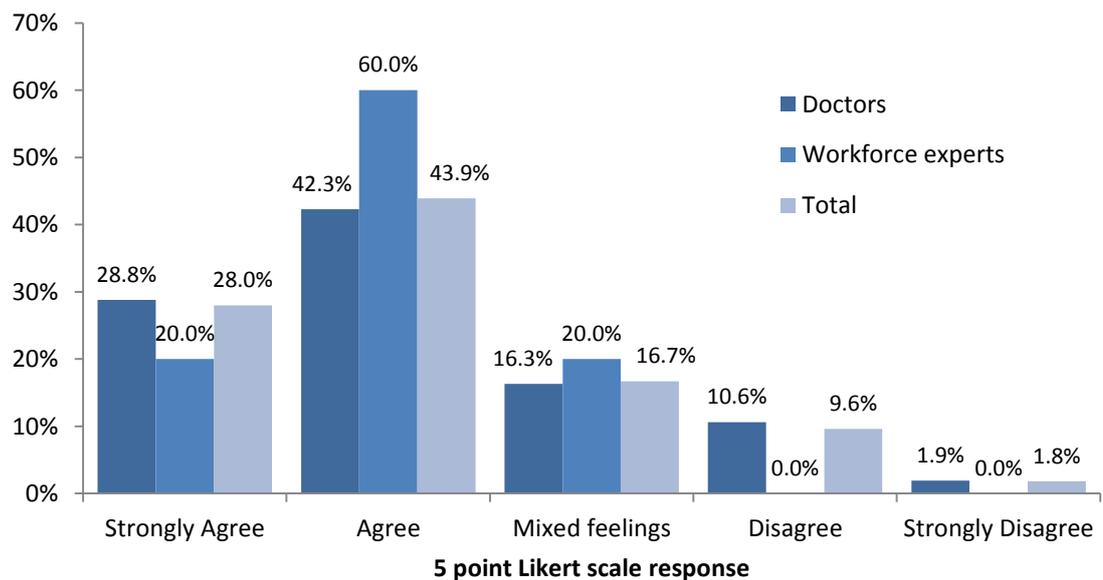


Figure 30. Respondents’ degree of agreement that “family factors are a cause of medical migration to Australia”.

Overall, it is noted in Figure 30 that the majority of the participants chose the ‘agree’ categories. However, these participants did not show strong opinions of agreeing, as mostly the choices fell under the ‘agree’ category. There were relatively few choices that fell under the ‘disagree’ categories or into the ‘mixed feelings’ category.

### 8.3 Summary of Results about Factors that are known to Cause Medical Migration

Before proceeding to the section on strategies of boosting workforce adequacy it is important to give a summary of the results in this section about factors that are known

in the literature to cause medical migration. On looking at factors that have been rated above in the Likert scale items, it can be seen that participants in all questions showed opinions of agreeing with some statements in two ways. Firstly, participants showed strong opinions by selecting the ‘strongly agree’ category more than any other category. An example of this instance was in the question about salaries and remuneration packages. Secondly, participants showed moderate opinions where the majority just agreed, rather than strongly agreed, such as in the issue about CPD, the workload and family issues.

#### 8.4 Strategies of Boosting Workforce Adequacy

This section sought to answer the following study questions:

1. What are the dominant characteristics of the New Zealand medical workforce scene and how do these contribute to issues related to adequacy and migration to Australia?
2. What are the opinions of medical practitioners and selected key workforce experts about causes and ways of managing medical workforce migration from New Zealand to Australia?

Participants were therefore asked to rate what their opinions were with regards to such recruitment factors as Māori and Pacific Admission schemes, and rural origin preferential entry. In addition to recruitment factors, participants were asked to rate factors that were related to policy and other general strategies that are known to boost medical workforce adequacy. These include maintaining contact with expatriated medical practitioners, regulation of medical practitioner migration and offering training scholarships to shortage areas. A summary of these factors is shown in *Table 35*.

Table 35  
*Strategies of boosting workforce adequacy*

Strategies of Boosting Workforce Adequacy
<ul style="list-style-type: none"> <li>• Māori and Pacific admission schemes</li> <li>• Rural origin preferential entry pathway</li> <li>• Maintaining contact and offering return incentives to expatriate medical practitioners</li> <li>• Regulation of medical practitioners’ migration</li> <li>• Increased collaboration between health ministries of sending and recipient countries</li> <li>• Strengthen overseas recruitment</li> <li>• Increased medical student intake numbers</li> </ul>

### 8.4.1 Māori and Pacific admission schemes.

When participants were asked how strongly they agree with the statement that the undergraduate Māori and Pacific Admission schemes are helping in achieving medical workforce adequacy, the majority of participants chose ‘agree’ while very few chose ‘strongly disagree’.

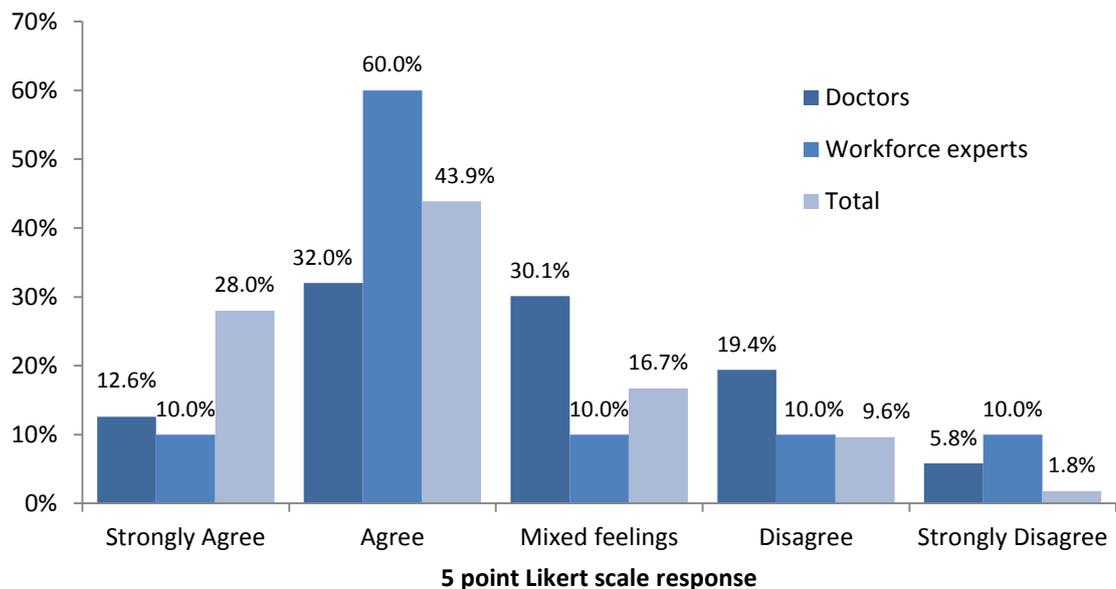


Figure 31. Respondents’ degree of agreement that “that Māori and Pacific undergraduate admission schemes are helping in achieving medical workforce adequacy”.

When all results are combined, it can be seen in Figure 31 above that the total number of participants who chose the agree categories was less than half of the overall total of 113 respondents. As reported in the next section, for the other questions on the ways of achieving workforce adequacy, the proportion of responses in the ‘agree’ categories tended to be greater than half the total number of respondents. It is also noted here that this question had a large number of participants who had mixed feelings. This could be because the issues of dealing with ethnic minorities are sometimes sensitive and hence participants either choose to answer positively or choose responses that are not extreme.

### 8.4.2 Rural origin preferential entry pathway.

Participants were asked how strongly they agree with the usefulness of a rural origin preferential pathway in boosting workforce shortages in New Zealand. Although among the 114 respondents surveyed, the majority agreed, there were very few participants who strongly agreed. Also notable was that a large number of participants (28.9%, n=33) chose the neutral category of ‘mixed feelings’.

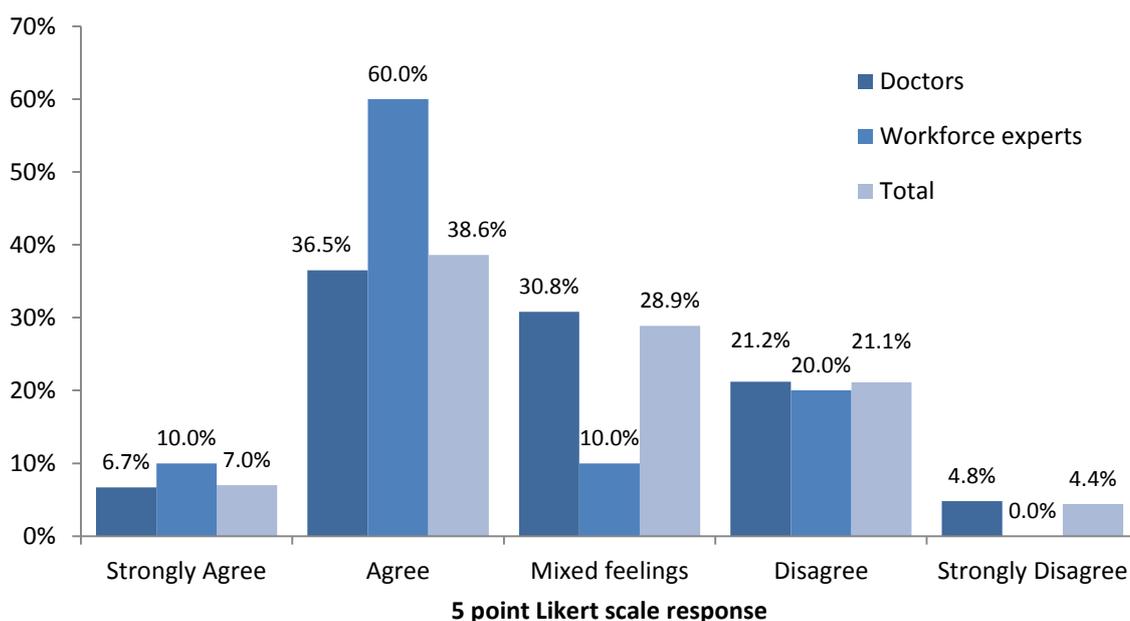


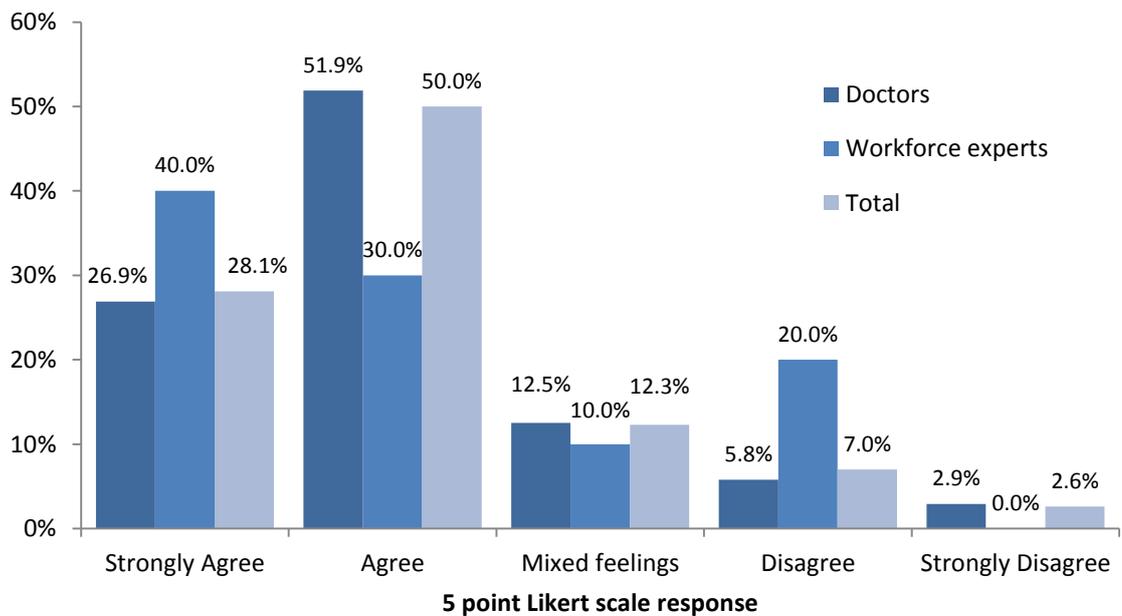
Figure 32. Degree of agreement that rural origin preferential entry pathway undergraduate admission schemes are helping in achieving medical workforce adequacy.

Figure 32 shows that, like the question on Pacific and Māori admission schemes, when compared with the earlier question responses outlined above, this question on rural origin preferential pathways had a higher number of participants who had mixed feelings, especially among medical practitioners.

#### 8.4.3 Maintaining contact and offering return incentives to expatriate medical practitioners.

Participants were asked how strongly they agree the strategy of dealing with the trans-Tasman migration issue of offering return incentives to expatriate medical practitioners. Compared to the other questions in this section on measures of boosting workforce adequacy, there were fewer medical practitioners (12.5%, n=13) who had mixed feelings.

The workforce experts group showed strong views where 40% (n=4) strongly agreed and 30% (n=3) agreed. Only one (10%) participant had mixed feelings. Of the ‘disagree’ group categories, there were only two (20%) respondents who disagreed and none strongly disagreed, further adding that there was generally a strong view that maintaining contact with expatriate medical practitioners is important.



*Figure 33.* Degree of agreement that maintaining contact and offering incentives to expatriate doctors is helpful in achieving medical workforce adequacy.

Overall, as shown in Figure 33, it can be seen that the participants seemed to express the view that maintaining contact with expatriate doctors is important. This was shown by the fact that there were a high number of responses in the agree categories and a low number in the undecided and the disagree categories.

#### **8.4.4 Regulation of medical practitioners' migration.**

Compared with other questions, the view that medical practitioner movement should be regulated seemed not popular. Among 112 participants who responded to this question, only 2.7% (n=3) strongly agreed signifying less strong opinions about the view. This number was less than half of the total number of participants of 112. The number of participants with 'mixed feeling's (38.4%, n=43) was one of the largest responses among that category of all the questions in this survey.

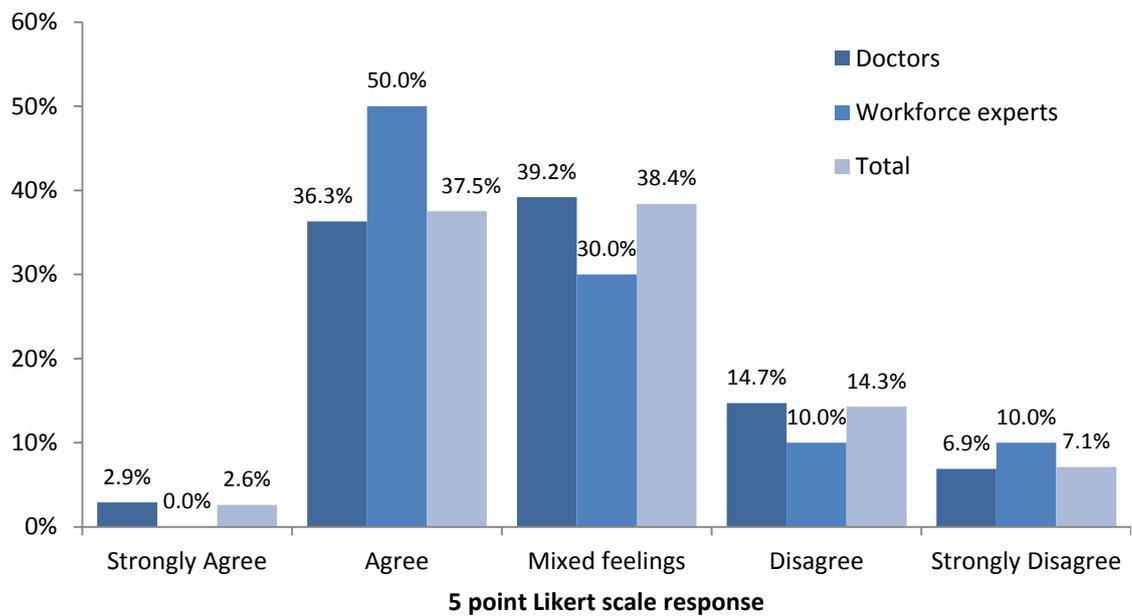


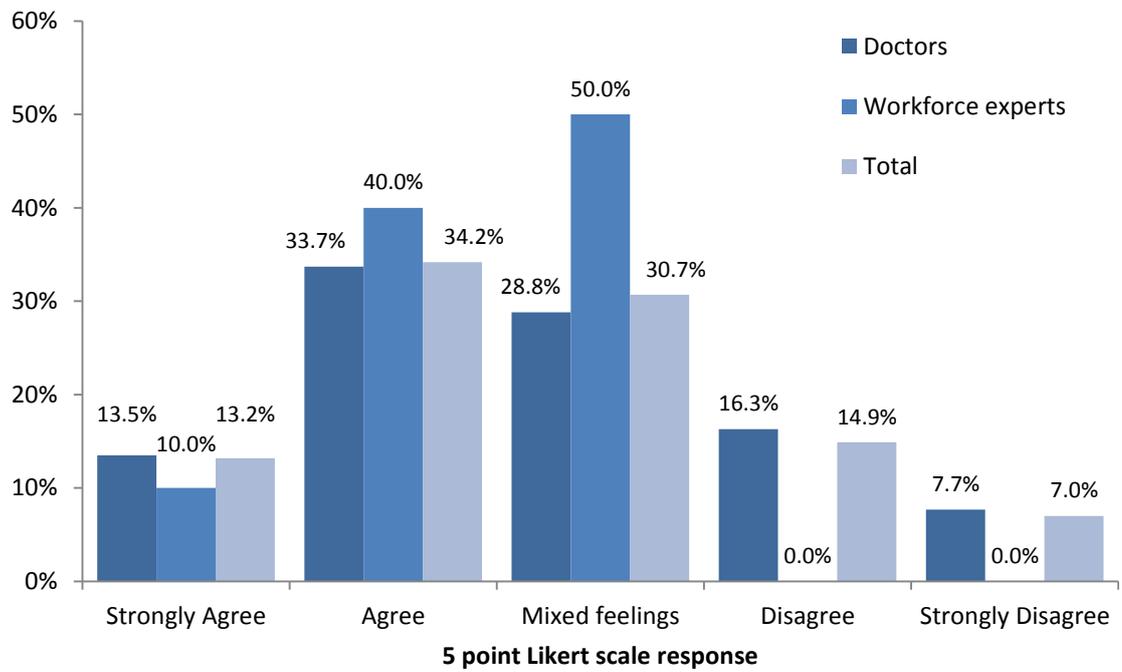
Figure 34. Degree of agreement that regulating practitioners' migration is helpful in achieving medical workforce adequacy.

Figure 34 shows that there was a high proportion of participants who had mixed feelings about this issue. On the other hand the second highest number was of those who agreed.

#### 8.4.5 Increased collaboration between health ministries of sending and recipient countries.

Participants were asked how strongly they agreed with a need for collaboration between the health ministries of the sending and recipient countries (i.e., New Zealand and Australia). In total the number of responses in the 'agree' category was below 50% of the total participants surveyed. There was a large number of participants (30.75%, n=35) who had mixed feelings about this statement. When the data was separated into the two groups of respondents, it was observed that among medical practitioners 13.5% (n=14) strongly disagreed while 33.7% (n=35) agreed. A large number of medical practitioners 28.8% (n=30) had mixed feelings about this statement.

Notable was also the fact that the majority of the workforce experts chose the 'mixed feelings' (50%, n=5) category. On the disagree side of the scale there were no participants who chose 'disagree' or 'strongly disagree'.

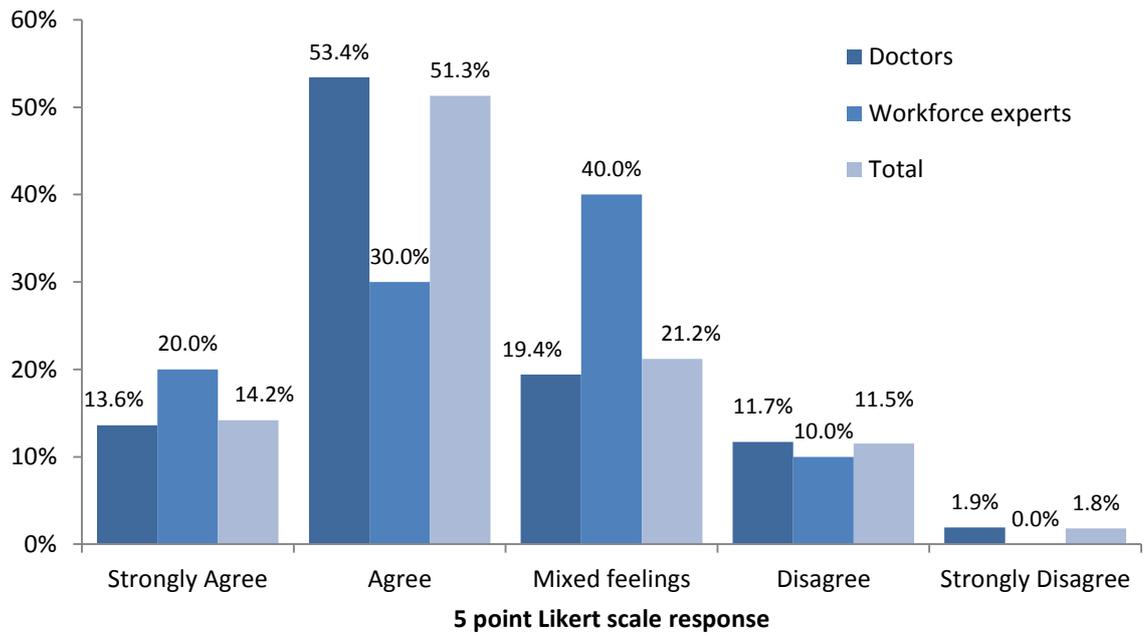


*Figure 35.* Degree of agreement that increased collaboration between New Zealand and Australia is helpful in achieving medical workforce adequacy.

As shown in Figure 35, overall while more participants fell in the agree category, there was still a large number of participants in the mixed feelings category.

#### **8.4.6 Strengthen overseas recruitment.**

A question was also asked about the extent of agreement by the participants that overseas recruitment must be strengthened. In the ‘agree’ categories there was a big difference between those who strongly agreed and those who just agreed.

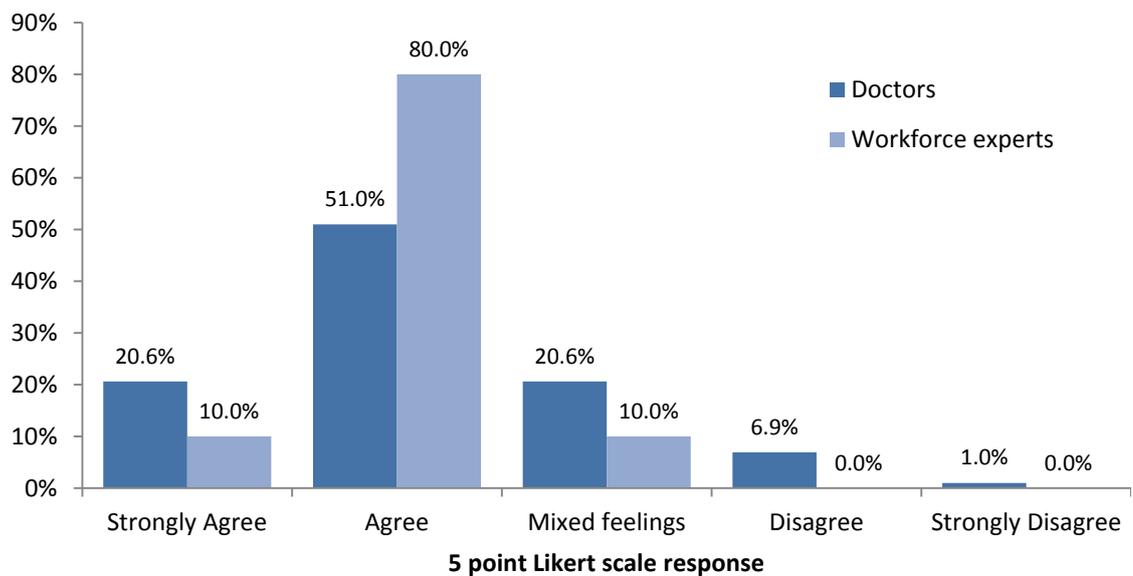


*Figure 36.* Degree of agreement that strengthening overseas recruitment is helpful in achieving medical workforce adequacy.

It can be seen from the results Figure 36, that the need to strengthen overseas recruitment was seen by participants as important. At the same time it can be seen that other participants tended to have mixed feelings about this issue.

#### **8.4.7 Increased medical student intake numbers.**

Another issue the participants were asked about concerned the increase in the medical student intake numbers as a helpful strategy to address medical workforce issues. It was observed that of the 112 respondents to this question, 19.6% (n=22) of the participants strongly agreed that this strategy is helpful, while 53.6% (n=60) of the participants agreed.



*Figure 37.* Degree of agreement that increasing medical student intake numbers is helpful in achieving medical workforce adequacy.

It can be seen from in Figure 37, participants seemed to support the idea that overseas recruitment should be strengthened. This was signified by the fact that, while most participants chose the agree categories, there were few participants who chose the disagree categories.

#### **8.4.8 Summary of factors about strategies of boosting medical workforce adequacy.**

It was noted that participants seemed to agree in large numbers that factors such as strengthening overseas recruitment, offering training scholarships, and maintaining contact with expatriate medical practitioners are important strategies for boosting the medical workforce. However, participants seemed to be mainly not decided about such factors as Pacific and Māori preferential entry pathways and rural origin preferential entry. Participants seemed to not agree with the idea of regulation of the movements of medical practitioners from one country to another, but rather supported having a collaboration of ministries of sending and receiving countries.

#### **8.5 Curriculum Innovation as a way of Boosting the Medical Workforce**

Another group of factors addressed innovative measures to boost the medical workforce which scholars (Fitzjohn et al., 2003; Hsueh et al., 2004; Poole et al., 2009) have written about in literature and these are listed in *Table 36*. These included innovations around changes in the curriculum for medical training, and changes in the length of residence programmes.

Table 36  
Curriculum innovation factors surveyed

List of innovation factors

- Changing medical training to be less competitive overseas
- Shortening the length of residency programmes
- Introducing medical auxiliaries
- Strengthening community-based medical education/ community/ rural preceptorship
- Promoting telemedicine

**8.5.1 Change medical training to be less competitive overseas.**

Participants were asked how strongly they agreed with a controversial idea that has been suggested in other countries in relation to making medical education less competitive. The majority of the participants in this study sample were against this idea. For example, of the 113 participants who responded, only 2.7% (n=3) strongly agreed and 8.8% (n=10) agreed, while a bigger number of participants was in the ‘mixed feelings’ category. There was an even larger proportion who the responded with ‘strongly disagree’ as compared with ‘disagree’.

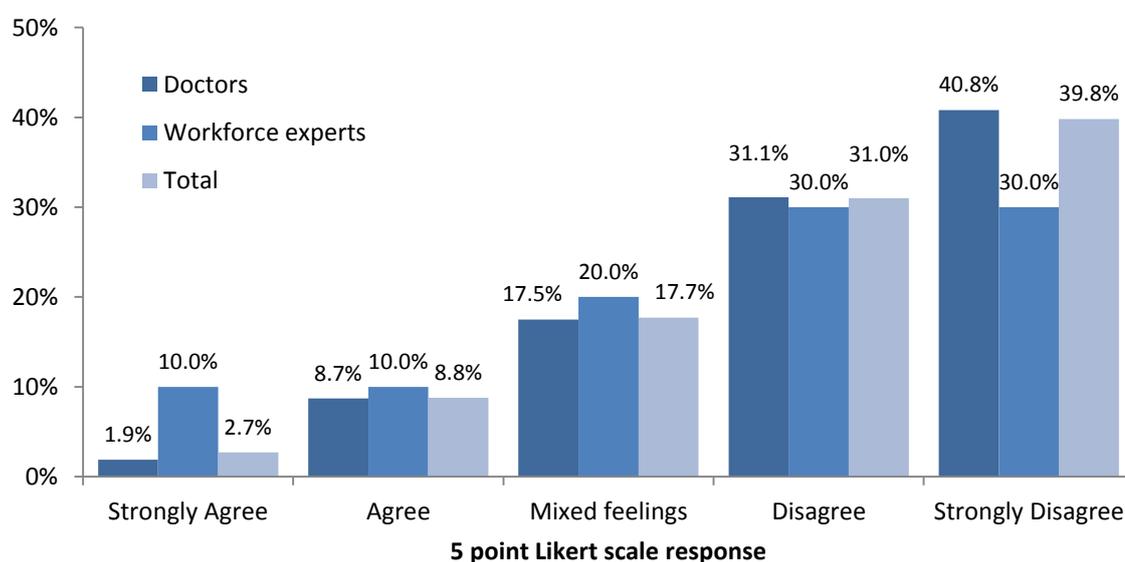


Figure 38. Degree of agreement that changing medical training to be less competitive overseas is helpful in achieving medical workforce adequacy.

As shown in Figure 38, the fact that the largest number more respondents selected the ‘strongly disagree’ category than any other Likert item shows that there is a strong feeling that the medical training should not be changed. It can also be concluded that

both groups seem to have a consensus about the fact that making medical education less competitive is not a popular idea.

### 8.5.2 Shortening the length of residency programmes.

Participants were also asked a question about shortening the length of residence programmes. Of the 113 respondents, there were very few participant who fell into the ‘strongly agree’ and the ‘agree’ categories. The largest numbers were on the ‘disagree’ side of the scale where 44.2% (n=50) disagreed, while 17.7% (n=20) strongly disagreed.

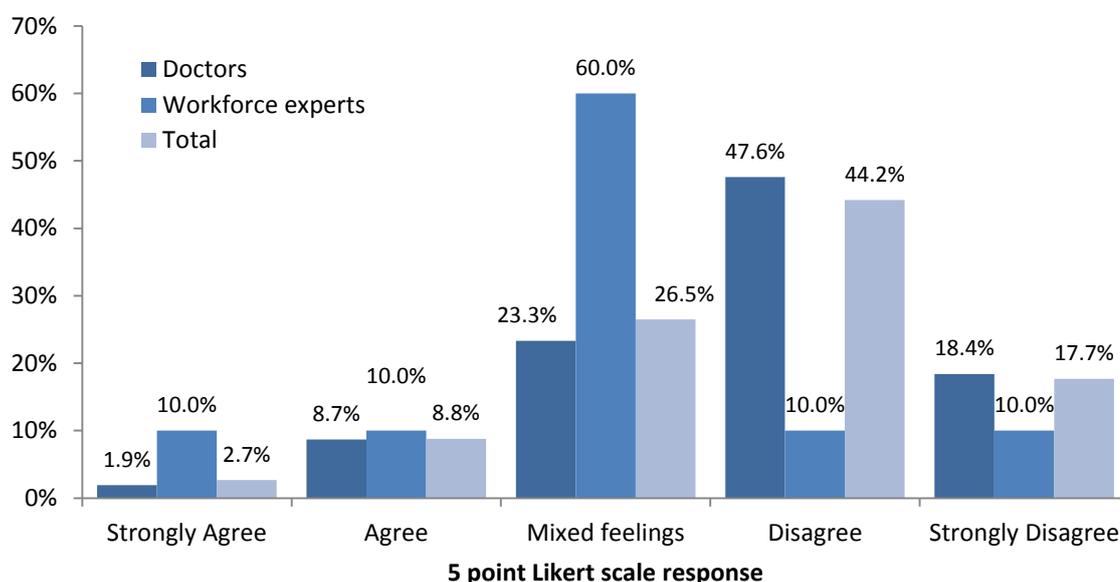


Figure 39. Degree of agreement that shortening length of residency programmes is helpful in achieving medical workforce adequacy.

The results above shown in Figure 39 indicate that participants mostly did not agree with the idea of shortening residency training. The results of this question seem to be also consistent with the results of the question on making medical education less competitive.

### 8.5.3 Introduce medical auxiliaries.

Another innovation that seems not to be popular in New Zealand, although it has been introduced in other countries and has been seen so far to be effective, is the introduction and strengthening of medical auxiliaries. As shown in Figure 40 and Figure 34, among the 113 participants who responded to this question, a large number of participants had mixed feelings (31%, n=35).

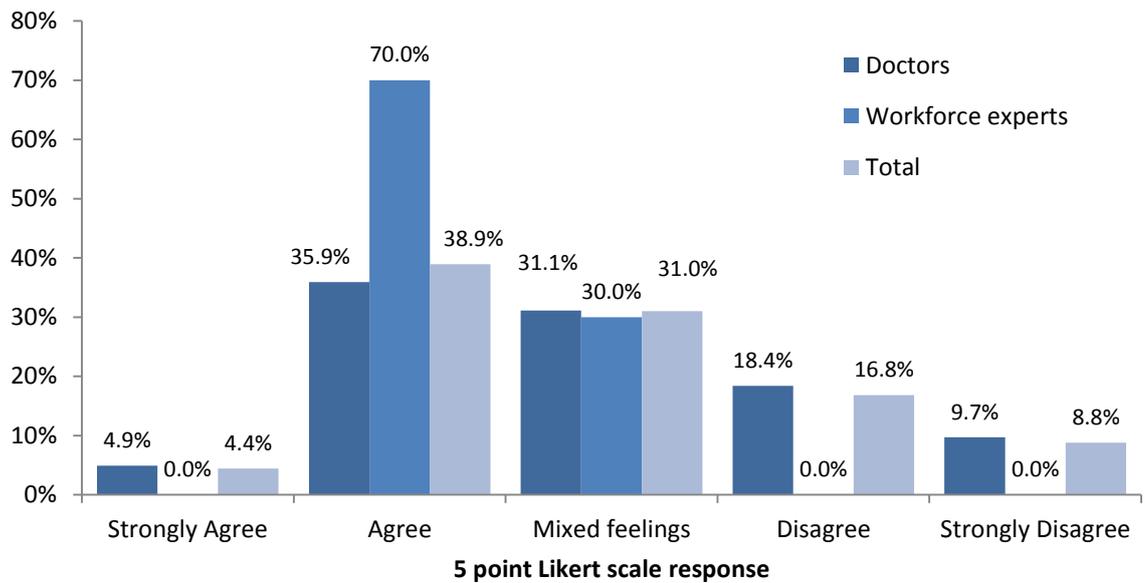


Figure 40. Degree of agreement that introducing medical auxiliaries is helpful in achieving medical workforce adequacy.

#### 8.5.4 Strengthening community-based medical education/ community/ rural preceptorship.

Participants were asked how strongly they agree that strengthening community-based medical education and/or community/ rural preceptorship can be a method of boosting workforce shortages. As shown in Table 53 and Figure 35, 53.3 % (n=63) of the participants chose the ‘agree’ option and 12.3% (n=14) chose ‘strongly agree’.

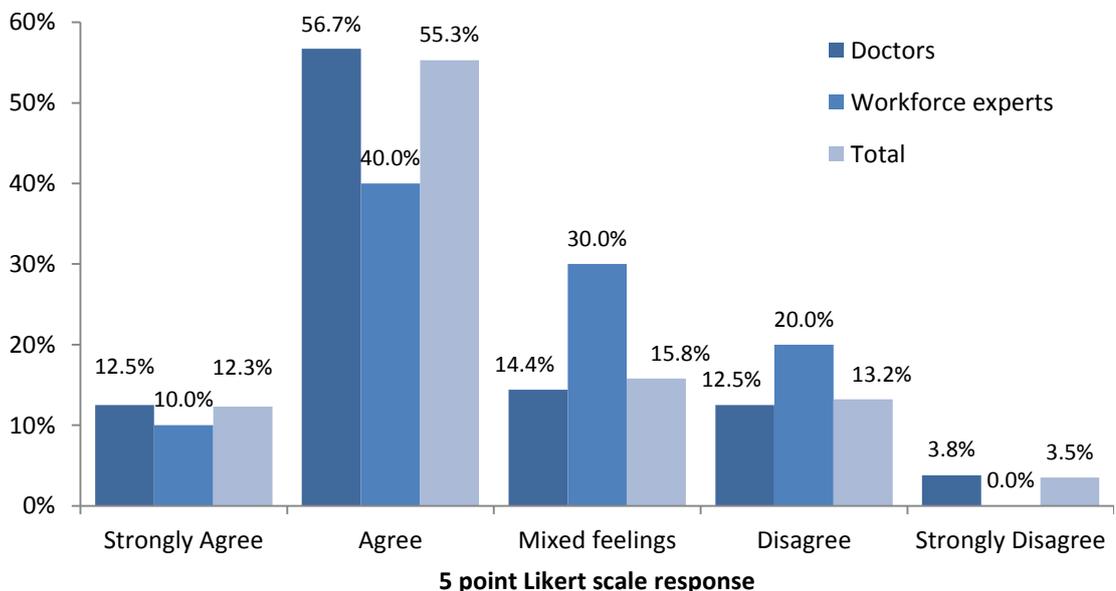


Figure 41. Degree of agreement that strengthening rural preceptorship is helpful.

Overall, as shown in Figure 41, it can be seen that participants do support the idea of community-based medical education methods such as community preceptorship. This is

shown by the fact that the majority of participants chose the agree categories while only a few chose the disagree categories. There were also fewer participants in the mixed feelings category as compared to the agree categories.

### 8.5.5 Promote more telemedicine.

One of the innovation factors participants were asked about was whether telemedicine could be introduced as a strategy of easing workforce issues. Figure 42 shows that among a total of 112 respondents to this question, although 52.6% (n=59) chose the ‘agree’ categories, there was also a large number of participants in the ‘mixed feeling’s category.

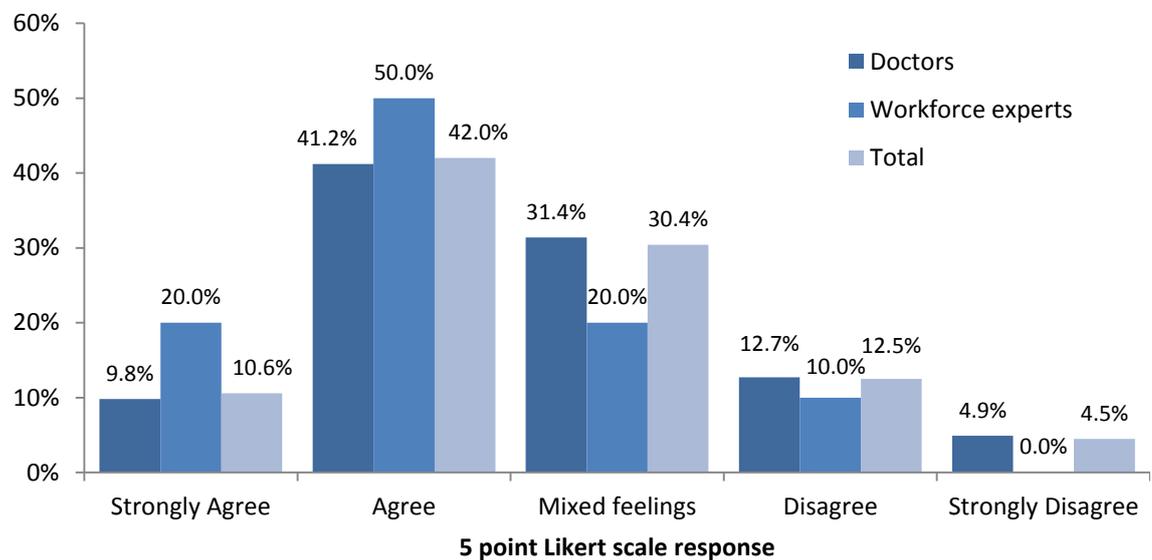


Figure 42. Degree of agreement that promotion of telemedicine is helpful in achieving medical workforce adequacy.

As Figure 42 demonstrates, workforce experts tended to agree rather than disagree on telemedicine innovation issues. Although medical practitioners mostly agreed, there were still a large number of them who had mixed feelings. This could be attributed to the fact that workforce innovations are mainly the concern of workforce planning workforce experts.

### 8.5.6 Summary on curriculum innovation factors.

It can be seen from the above presentation of the study findings that participants seem to have preferred some forms of innovation rather than others. The forms of curriculum innovation that seem to be favourable were telemedicine and community based medical

education. Other forms of innovation that may interfere with the quality of medical education, such as shortening the length of residence programmes, seem not to be favourable.

The fourth section of the questionnaire asked the questions that were related to the current challenges in the medical workforce. The results are presented below.

## **8.6 Current Challenges in the Medical Workforce**

Participants were also surveyed on what they thought about the current challenges (*Table 37*) of the New Zealand medical workforce which are already documented in literature. These included turnover, trends in female participation, ageing workforce, and ageing population.

Table 37

*Summary of factors surveyed on current challenges in the medical workforce*

---

Challenges in the medical workforce
Turnover
Female participation
Ageing workforce
Aging population

---

### **8.6.1 Turnover as an issue.**

Participants were asked how strongly they thought that turnover is a workforce adequacy issue in New Zealand. Of the 113 medical practitioners surveyed, it is noteworthy that in the strongly disagree and disagree categories in each; only one participant out of a total of 113 participants surveyed thought this was not an issue. In the ‘disagree’ and the ‘strongly disagree’ categories there were almost no participants who selected each of these choices; only 1% (n=1) chose each of these categories.

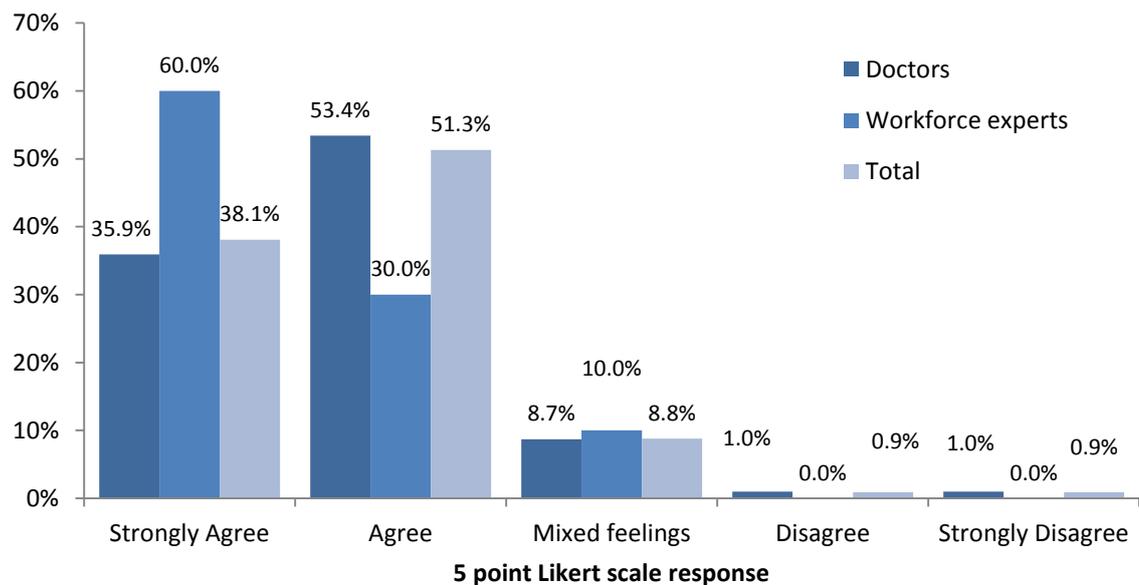


Figure 43. Degree of agreement that turnover is an issue in the medical workforce.

As shown in Figure 43, this question is another one where there were overwhelming responses on the agree side and few on the disagree side. It is therefore observed that generally participants feel that turnover is a major issue. It is also observed that not one of the medical practitioner participants feels that turnover is not an issue.

### 8.6.2 The trend of female participation as an issue.

Participants were also asked how strongly they agreed that the new trends of female participation in the workforce were posing challenges. Among the 103 medical practitioners surveyed, the majority chose the agree categories about the fact that female participation is an issue. It was also notable that a relatively large number of participants 24.8% (n=28) had mixed feelings. Although this question was relevant to medical practitioners because they are the ones in the group that experience the working patterns of people of different genders, it was surprising that quite a large number of them had mixed feelings about this question.

Among workforce planning workforce experts the majority of participants were on the agree side. It was not surprising that this question was answered this way by workforce planning workforce experts since it is a policy issue.

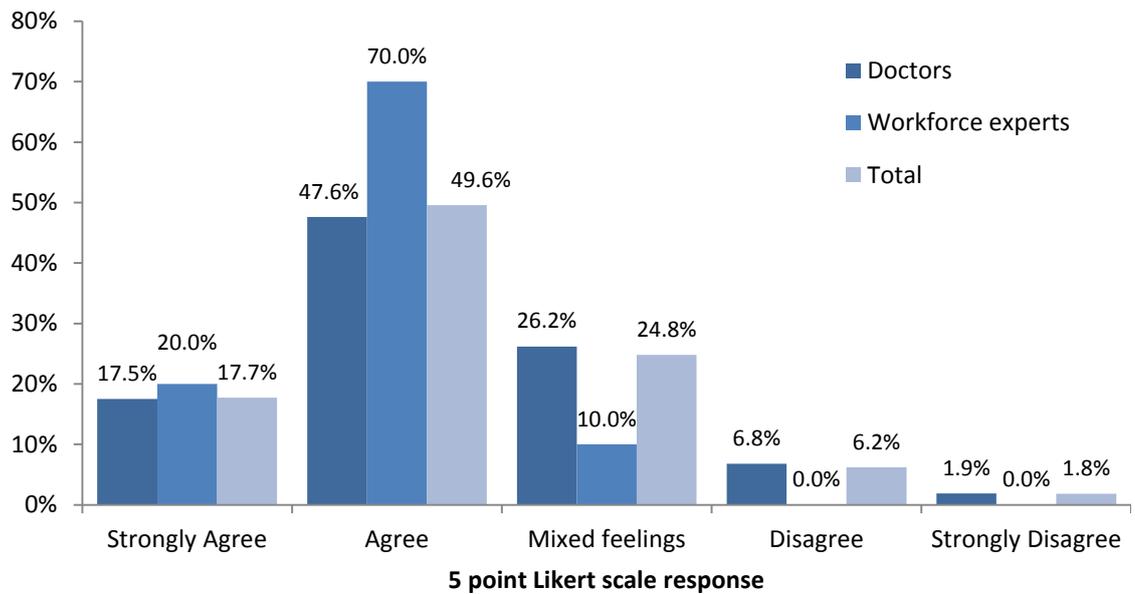


Figure 44. Degree of agreement that the trend of female participation poses a challenge.

As shown in Figure 44, overall it can be seen that there was a larger number of participants on the agree side of the scale and few participants on the disagree side of the scale.

### 8.6.3 Ageing workforce poses challenges.

In the question about the analysis of the current state of the workforce, participants were also asked a question about the extent of their agreement about the impending challenges of the ageing workforce in the population. Of the 103 participants who responded to this question, it was worth noting that the majority were in agreement.

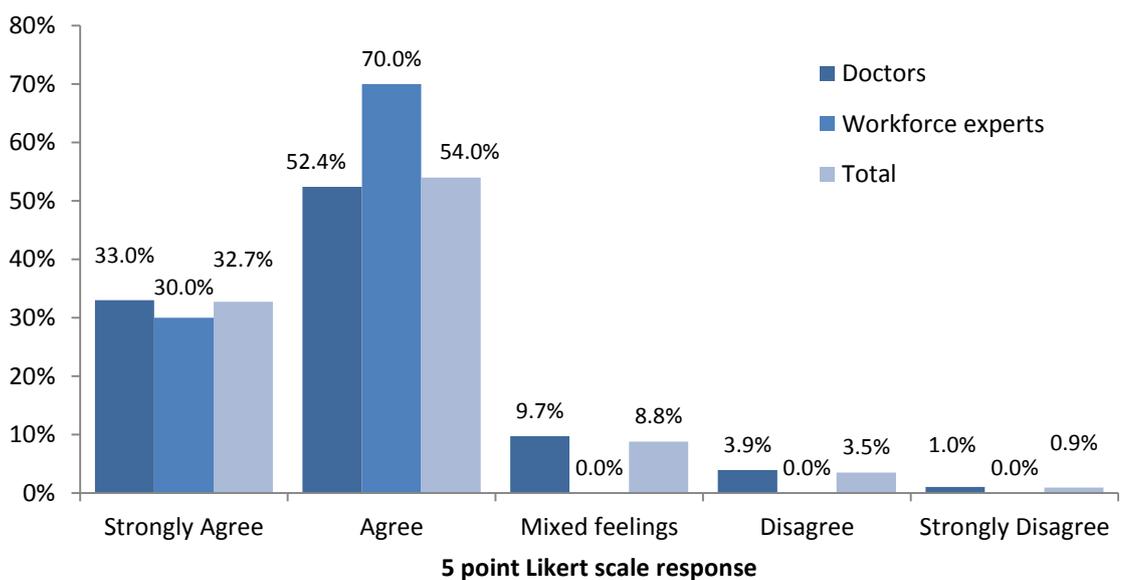


Figure 45. Degree of agreement that the ageing workforce poses challenges.

Figure 46 shows that overall, although there are not many expressions of strong feelings, participants are in larger numbers agreeing (as opposed to disagreeing) with the fact that the ageing workforce is posing challenges. Few participants disagree and all workforce experts are agreeing. This is important because it is a workforce planning issue.

#### 8.6.4 Challenges of population structure which is ageing.

Participants were also asked about the future challenges posed by the ageing population in New Zealand. The majority of participants thought that the population structure changes posed a challenge to workforce planning. The majority of participants strongly agreed that the ageing population is posing challenges while on the other side of the Likert items, few participants either disagreed or strongly disagreed.

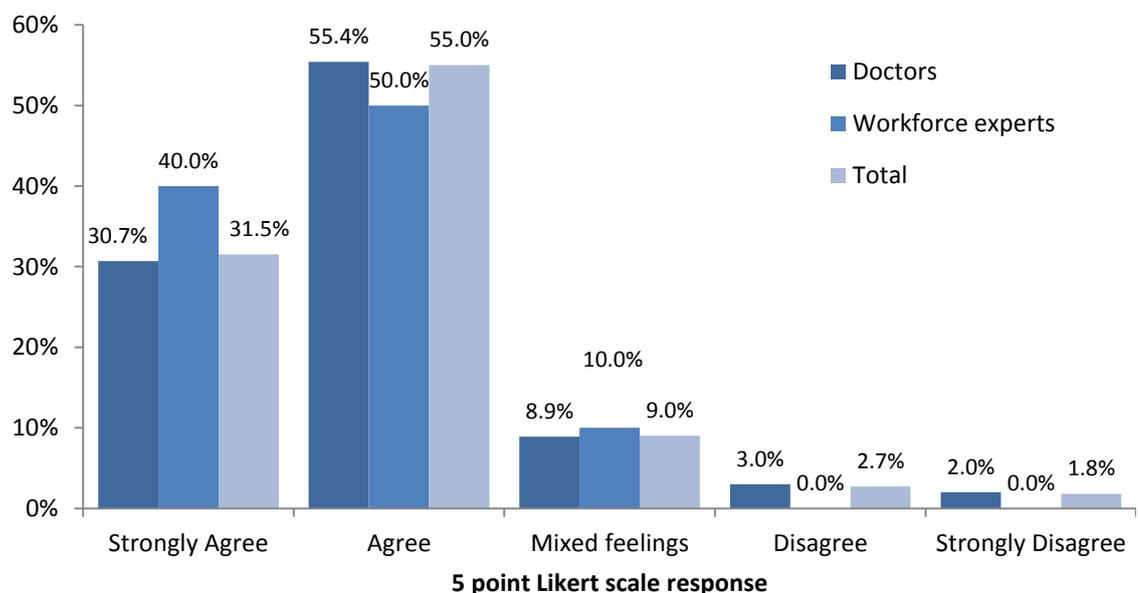


Figure 46. Degree of agreement that the ageing population poses challenges.

As shown in Figure 46, it is therefore observed that workforce experts seem to strongly believe that the challenges of the changing population need to be tackled. It is not unusual that workforce planning experts responded this way because this is a policy planning issue. To medical practitioners this question was relevant as they may be anticipating future changes in their jobs to respond to population challenges.

#### 8.6.5 Summary on challenges in the medical workforce.

It seems that participants agree that challenges such as trends in female participation, the ageing workforce and the ageing population are issues. Furthermore, it is noted that

most participants seemed to agree in relatively large numbers that turnover is an issue. Furthermore, while the other challenges were not raised in the course of the open-ended questions in the survey, the issue of turnover was raised several times in that part of the survey.

## **8.7 Summary of All the Questionnaire Responses**

This summary gives an overview of outstanding issues in terms of the categories that most participants chose and in line with the procedures of a qualitative mixed methodology these will be discussed in the qualitative or interpretive language rather than a statistical language. There were questions where the participants tended to choose the extreme side of the agree categories which are the ‘agree category’ and ‘the strongly agree category’. These will be discussed first.

### **8.7.1 Questions where the responses tended towards the ‘agree’ and the ‘strongly agree’ categories.**

The questions where there were extreme responses (tending towards ‘strongly agree’) were the ones where the majority of participants demonstrated extreme feelings by choosing the category of strongly agree in respect of the issues about higher salaries and methods of remuneration. On the other hand the questions where the majority of responses were in the ‘agree’ category’ included questions about challenges in the medical workforce such as the workload, the trend of female participation and the ageing workforce and ageing population. The same applied to the question indicating that the family is a contributing factor in migration.

The questions where the majority of responses were in the ‘agree’ category also included questions related to strategies of achieving workforce adequacy. These questions were about the need to achieve the right speciality mix in the medical workforce, the need for the rural quota and the Māori and Pacific quotas, and the need to maintain contact with expatriate medical practitioners. The questions on reducing medical practitioner turnover, strengthening overseas recruitment, and increasing medical intake numbers also had most of the participants in the agree categories.

### **8.7.2 The ‘strongly agree’ and the ‘agree’ categories combined.**

Figure 47 presents a summary of the survey responses in the ‘agree’ and ‘strongly agree’ categories on the Likert scale. As presented, over 75% of the sample agreed that the major influences of migration included remuneration methods (92.0%), higher

salaries in Australia (83.3%) and greater workloads (82.3%) in New Zealand; and workforce adequacy is influenced by challenges of the ageing workforce (86.7%) and population (86.5%) along with contact with ex-patriot medical practitioners and offering incentives to return to New Zealand (78.1%).

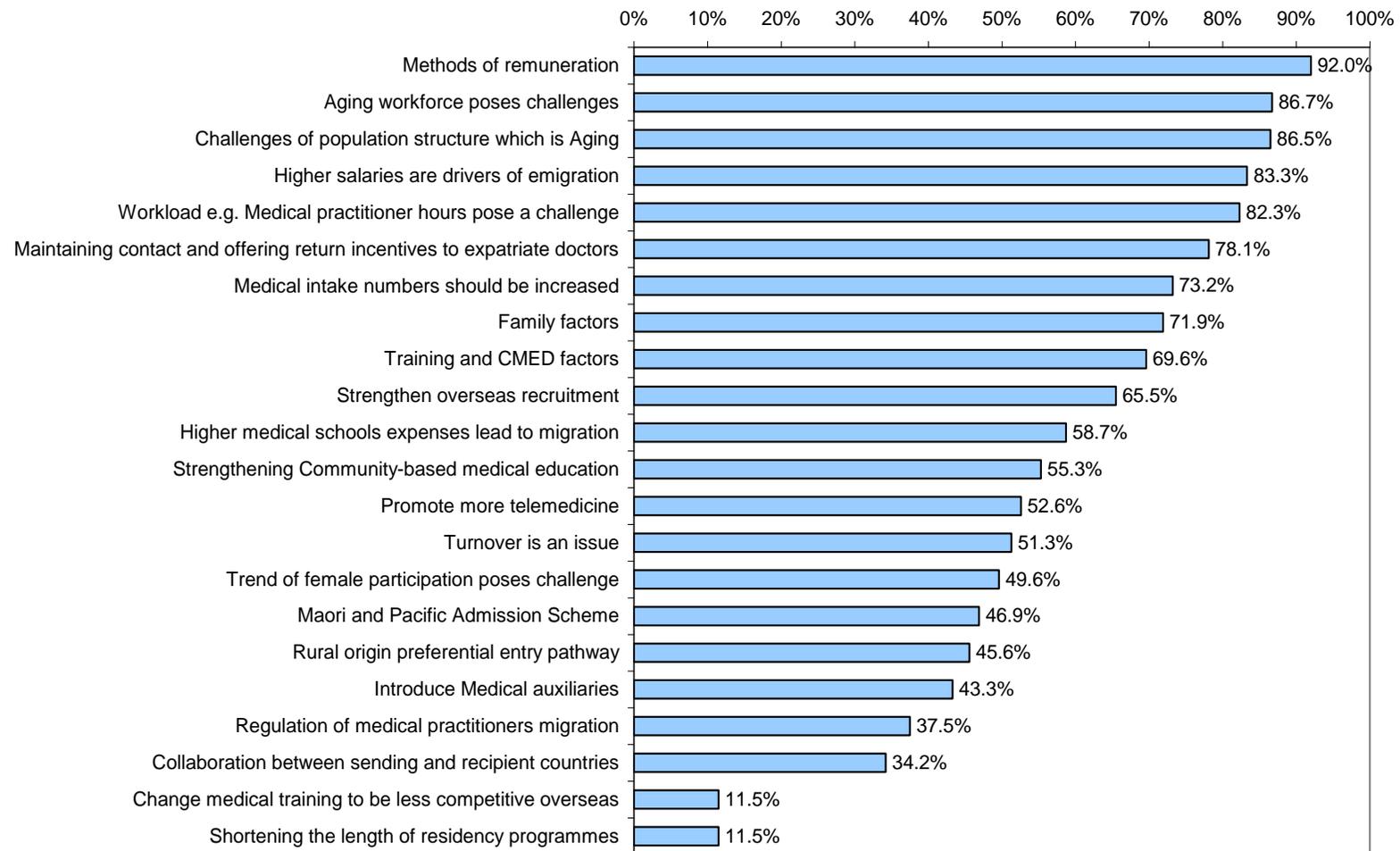


Figure 47. Summary of results showing 'agree' and 'strongly agree' responses combined percentage for each category.

### **8.7.3 Questions where the majority of responses leaned towards ‘mixed feelings’ or ‘strongly disagree’.**

In respect of some questions, the majority of participants tended to have mixed feelings in their choice of responses, for example: regulation of medical practitioners’ migration. The responses in some questions stood out in the sense that there were more participants in the ‘disagree’ category than the ‘agree’ categories. These questions included: changing medical education to be less competitive and shortening the length of residence programmes.

## **8.8 Analysis of Open Ended Question Results in the Questionnaire**

The quantitative questions were followed by open-ended questions at the end of the questionnaire. As has been said in the methods chapter, the open text responses were analysed in a quantitative framework by counts of the words that are frequently occurring. In the open-ended questionnaire section participants responded to questions about factors that make medical practitioners migrate to Australia, and also sought their views about working conditions in New Zealand. Participants were also asked to suggest medical workforce retention strategies.

### **8.8.1 Responses to the question about the factors that make medical practitioners migrate to Australia.**

In answer to the question about factors that cause medical practitioners to migrate to Australia, there were six main reasons cited: salaries, CPD, student debt, working conditions, lifestyle and adventure, and proximity. Table 38 shows that the most frequently cited reason was salaries followed by (n=27) student debt (n=7). The next frequently cited reasons were CPD (n=6) and lifestyle (n=7), where participants indicated that the weather and the general cosmopolitan lifestyle is an attraction. The reason that was mentioned least was that of proximity to New Zealand.

Table 38  
*Issues Raised by Participants about Factors Causing Migration to Australia*

<b>Issues</b>	<b>Sample extracts</b>
Higher pay (n=27)	“More money predominantly” “Salaries are significantly better.”
Other remuneration packages (n=7)	“... other financial inducements”
Student debt (n=7)	“Student debt” “the very large student debt”
Career development and CPD (n=6)	“Better opportunities for career development”.
Lifestyle factors (n=6)	“lifestyle with a warmer climate” “a more cosmopolitan lifestyle”
Proximity (n=2)	“almost similar culture, ease of relocation.”
Adventure (n=4)	“...wish to travel”
Total number= 67	

### **8.8.2 Responses to the question: “Comment about the working conditions of medical practitioners in New Zealand”.**

There were a total of 65 participants who responded to a question that asked them to comment about the working conditions in New Zealand. Of the 65 participants, seven indicated that the conditions were either very good or excellent. Other participants indicated that the conditions were either moderately good or good (n=12). Other participants thought that conditions were bad (n=6).

There were some participants who raised other issues which they thought affected working conditions. The positive issues were good salary (n=9) and light workload (n=4). Negative issues included heavy workload (n=7), collegial relationship issues (n=3), management issues (n=4), lower salaries (n=8) and student debt (n=8). A summary of all these responses is shown in Table 39.

Table 39

*Issues Raised by Participants in Relation to Working Conditions*

<b>Issues</b>	<b>Sample extracts</b>
Very good to excellent working conditions in New Zealand (n=7)	“generally very good” “Excellent working conditions during and after training.”
Moderately good to good working conditions in New Zealand (n=12)	“The payment is not as bad as it looks...” “good...but not improving” “The working conditions are reasonable”
Bad working conditions in New Zealand (n=6)	
Heavy workload (n=7)	“Hours are long...” “long hours often relying on goodwill” “underpaid and overworked”
Reasonable workload (n=4)	“I feel semi-retired in NZ [sic] “Light workload”
Collegial relationship issues (n=3)	“demoralised...by senior specialist workforce” “bullying of junior medical practitioners”
Management(n=4)	“bad management” “change styles of management”
Salary good in New Zealand (n=9)	“The payment is not as bad as it looks...”
Pay bad in New Zealand (n=8)	“pay needs to be competitive v. Australia”[sic] “Underpaid compared to other countries” “Remuneration for junior medical practitioners too low”
Student debt (n=8)	“student debt not good” “Large student loans is a negative issue”.
Total number= 65	

### **8.8.3 Responses to the question: “What are the factors that contribute or could contribute to the retention of graduates here in New Zealand?”.**

Among the participants, 65 responded to the question on what the retention factors are in New Zealand; however there were only five different reasons mentioned. As shown in Table 40 these reasons included family (n=170), lifestyle and weather (n=7), and loyalty and commitment (n=12). Among the factors that could contribute to retention participants mentioned student loan policies (n=7), the need to improve pay (n=9) and improve relationship issues (n=4).

It is here noted that none of the reasons mentioned pointed to salaries or training, despite the fact that earlier on some medical practitioners had said salaries are good. None of the respondents indicated that salaries keep them in New Zealand.

Table 40  
*Issues Raised by Participants in Relation to Retention*

<b>Issues</b>	<b>Sample text extracts</b>
Family (n=17)	“Family and friends probably the most important aspect”. “Proximity to family and friends.”
Lifestyle and weather (n=7)	“lifestyle and smaller distances to travel” “Better climate in Australia.... Larger cities.”
Need to improve pay (n=9)	“increase the pay”
Need to improve training (n=6)	“Training and ongoing education”
Bonding (n=6)	“Bonding new graduates”
Loyalty and commitment (n=12)	“Dedication to the country that trained them...” “Loyalty to NZ. NZ lifestyle. Definitely not the salaries”
Student debt (n=7)	“Reduced student fees, or have much better debt write-off provisions” “Options for Hospitals etc to offer incentives to reduce student debt.....”
Relationship issues (n=4)	“Positive work culture” “Distributed leadership would help engagement at all levels and not just for medical specialists.”
Total number=65	

#### **8.8.4 New items that emerged from the open ended questions and items that were mentioned in extreme ways.**

Although lifestyle and loyalty issues were not asked in Likert scale questions, a number of participants mentioned these issues. From what can be seen in Table 40, some participants were mentioning lifestyle on its own while others were mentioning lifestyle and other factors. Among medical practitioners who mentioned loyalty, were the following other words that seemed to mean something similar ‘sense of duty’, ‘loyalty’, ‘dedication’ ‘commitment’, and ‘responsibility’. These words were put under one umbrella for the sake of organising material that had the same meaning.

Another new item that stood out from the open ended text responses was the fact that participants expressed varied opinions about working conditions in New Zealand. Although some participants felt that salaries were lower in New Zealand, there were mixed feelings about this issue in the sense that some participants felt that salaries were reasonable in New Zealand. There were also mixed feelings in the sense that although some participants thought that Australian conditions are better compared with New Zealand, some participants thought that various conditions are still reasonable in New Zealand.

These items that the medical practitioners mentioned as reasons that keep them in New Zealand were either not in the questionnaire or phrased differently in the survey quantitative items. This is of interest because these are new things that emerged from the survey. Thus, it is concluded that the open text results revealed items that were not imagined by the writer. The writer had presumed that extra things would emerge other than the mentioned items' assumptions and reflexivity sections of this study.

In terms of items that received extreme responses, issues about the family ties as retention factors were mentioned very consistently and at times successive participants would make a mention of the word 'family'. The manner in which the responses mentioned 'family' in succession is illustrated in Figure 48.

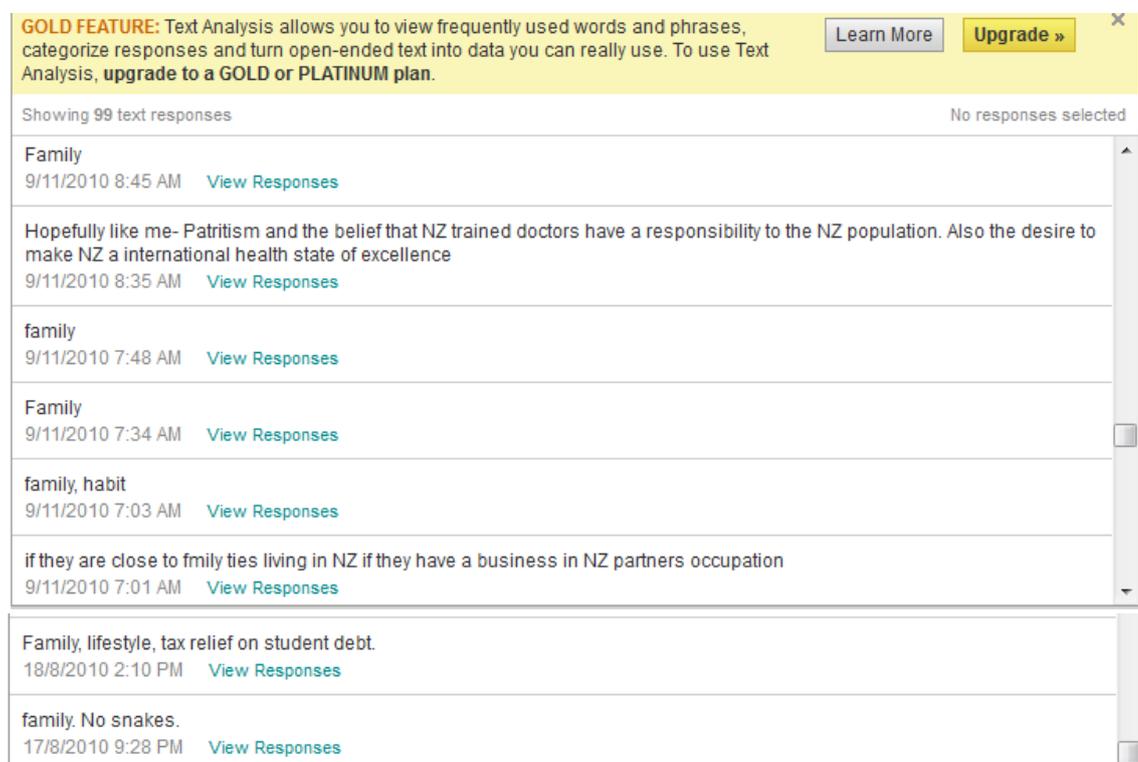


Figure 48. Sample of recurrence of themes about 'family' as a retention factor.

It can be noted from the above statements that some participants were just mentioning family only, while some participants were mentioning family and other factors such as lifestyle. This might serve to tell the reader that family factors are either the main reason or part of a web of reasons that keeps particular medical practitioners in New Zealand.

## 8.9 Conclusion

Salaries and remuneration packages in quantitative questions seemed to be having high responses. However in the open ended texts there were some participants who were satisfied about salaries. The issue of working conditions also had varied responses from

very satisfactory to less satisfactory. There were also new themes that emerged from the open-ended text, such as lifestyle preferences and loyalty and commitment. The fact that these themes emerged without being suggested to participants is important and therefore warrants being pursued in the discussion chapter.

## **Chapter 9: Sub-Project Two: Quantitative Results of the Survey of Medical Practitioners who Migrated to Australia**

### **Introduction**

This chapter presents the results of a survey which included 64 respondents sampled from a population of medical practitioners who had already migrated to Australia. These participants were from selected specialities, which were: general practice psychiatry, dermatology, radiation medicine, pathology, general practice, paediatrics; and physicians. The chapter begins with a description of the demographic information followed by a question-by-question presentation. The results of the open-ended questions associated with this survey will also be presented. The chapter ends with a summary and a conclusion on insights gained from this survey.

The survey sought to answer the following two research questions:

- What are the dominant characteristics of the New Zealand medical workforce scene and how do these contribute to issues related to adequacy and migration to Australia?
- What are the opinions of medical practitioners about causes and ways of managing medical workforce migration from New Zealand to Australia?

Table 43 shows a summary of the factors that were surveyed. More details about this questionnaire can be found in appendix F. The views of medical practitioners about these factors will be presented in the sections that follow.

Before exploring the views of medical practitioners about factors leading to migration the demographic information of participants will be presented.

### **9.1 Section A: Demographic Information**

The demographic information gathered from the participants included age group, gender, marital status, classification of country of birth, classification of country of qualification, and years lived in New Zealand. Further demographic information included qualification or postgraduate study and also the area of specialty. The information to be presented below is of the demographic information and opinions of a total of 64 participants. Among these participants the majority (75%, n=48) were specialists (SP) (including the General Practice specialty) registered to practice in a

vocational scope while the remaining 25% (n=16) were medical practitioners (MP) in various stages of their careers (including GP trainees). *Table 41* shows the key to labels that will be used in graphs in this chapter.

Table 41  
*Key for labels for stage in career*

<b>Abbreviation</b>	<b>Meaning</b>	<b>Usage in this chapter</b>
MP	Medical Practitioner other than specialists	Any medical practitioner who has not attained registration in a vocational scope including those pursuing general practice
SP	Specialist	Any medical practitioner who has attained post-training registration in a vocational scope including General practice

It is also important to mention that seniority will be used in the context of this chapter to differentiate medical practitioners in the “SP” category and those in the “MP” category.

### **9.1.1 Age by stage in career.**

The respondents were classed in the age groups of 26-35; 36-45; 46-55; and 56 years and over categories. The age groups could not be made to be smaller than 10 year groups because of the small overall number of respondents. It can be seen from Figure 49 that the majority of participants fell in the mid-range categories. This reflects the age of the medical practitioner population in New Zealand; namely 45 years of age (Health Workforce New Zealand, 2013b). The second categories with fewer participants were the 26-35 year old category and the 56 years and over category. Figure 50 shows the summary of the numbers in these two categories. Figure 51 also shows that the majority (74.6%) of survey participants were specialists (n=47).

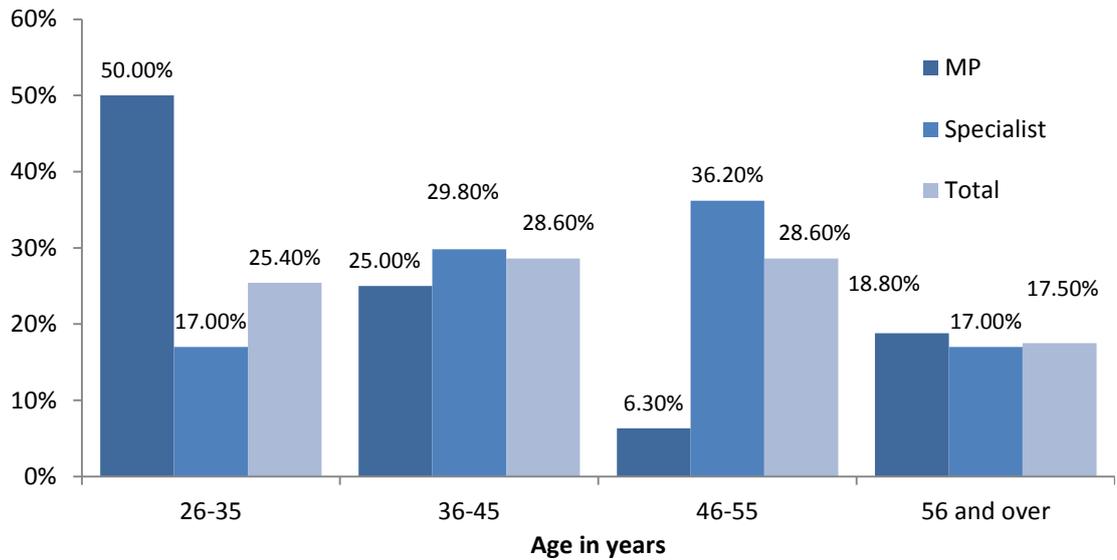


Figure 49. Age profile of respondents by seniority.

### 9.1.2 Gender by stage in career.

In addition to age, it was also necessary to ascertain the gender of the participants. As shown in Figure 50, males constituted a larger portion (73%, n=46). Although this was not meant to be a representative sample, it is important to mention that in the New Zealand medical practitioner population group, in 2009 females made up 39% while males made up 61% (Health Workforce New Zealand, 2013b).

Figure 48 also shows that the majority of both the male (75%, n=36) and female (66.7%, n=12) participants were specialists, although proportionally slightly fewer females were more likely to be junior medical practitioners. There was a higher proportion of male medical practitioners among specialists.

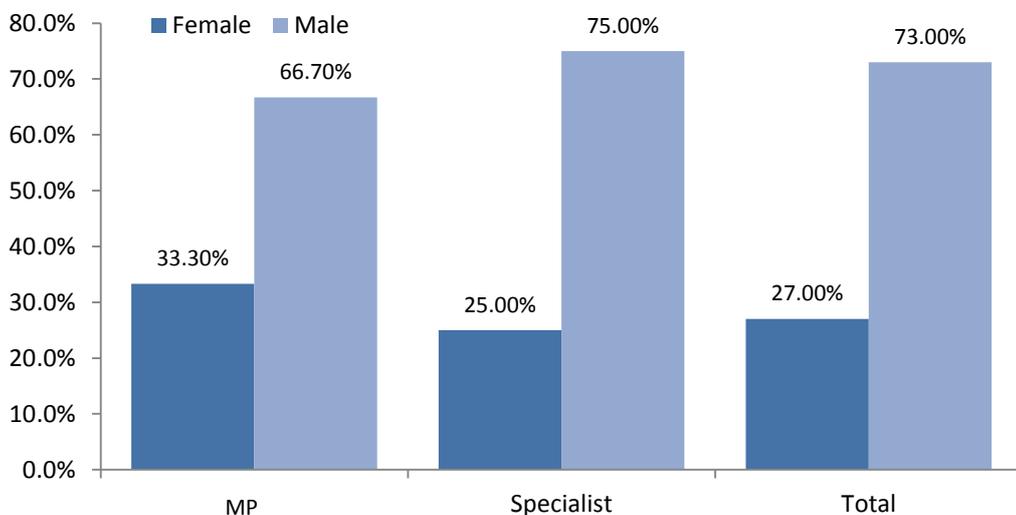


Figure 50. Gender profile of respondents by seniority.

### 9.1.3 Marital status by stage in career.

Another dimension which has been seen to be important, especially in determining the likelihood of a medical practitioner migrating, is that of marital status (Callister et al., 2009). As shown in Figure 51, the participants who had partners made up 4.7% (n=3), while those who were married made up 79.75% (n=51). The participants who were divorced made up 7.8% (n=5) and those who were single made up 7.8% (n=5).

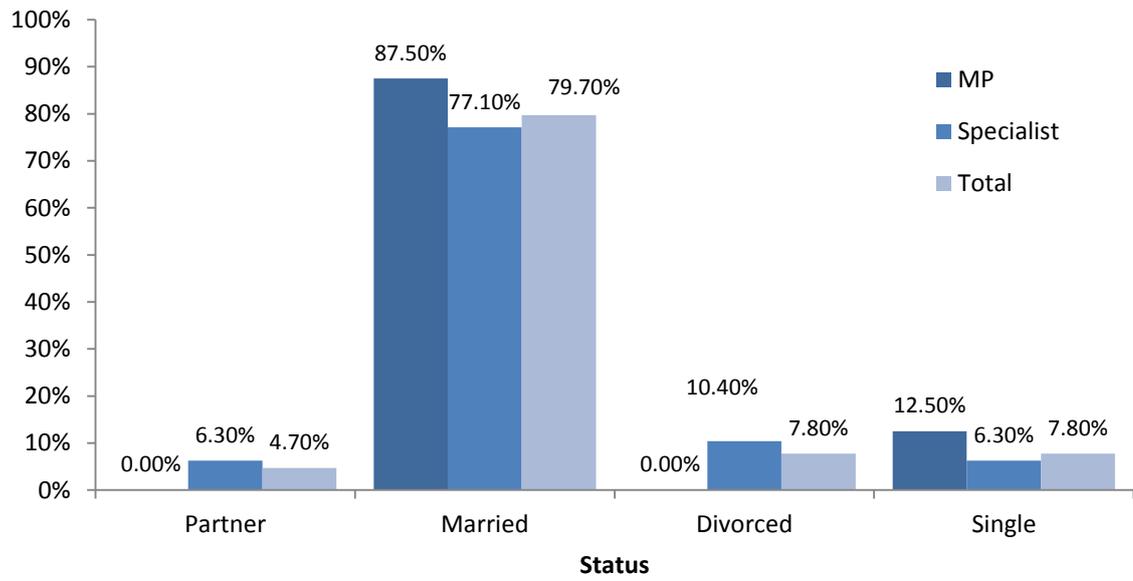


Figure 51. Marital profile of respondents by seniority.

As shown in the above figure, the majority of the participants were in the married group, followed by those who were in the single and the divorced groups. Those who had partners had the fewest numbers.

### 9.1.4 Country of birth by stage in career.

Another dimension that was ascertained was the country of birth of the participants. It has been noted in research that country of origin is a factor in looking at the propensity of individuals to migrate (Zurn & Dumont, 2008). Participants were grouped into the categories of either New Zealand or English-speaking developed world or other. The definition of English-speaking developed world included the US, UK, Australia, New Zealand and other countries in the English-speaking European region. Any other country was grouped in the “other” category. Participants were also given a blank space to indicate the country where they come from in the ‘other category’. Generally, the countries mentioned included Russia, Egypt, South Africa, Iraq, Afghanistan, Iran, Serbia, India, Bangladesh, Germany, the US, Australia, the UK and Canada.

In terms of percentages, the majority (54.7%, n=35) of the participants were born in New Zealand and 29.7 % (n=20) were born in other countries in the English-speaking developed world. The other remaining 15.6% (n=10) consisted of respondents who were born in countries in the “other” category.

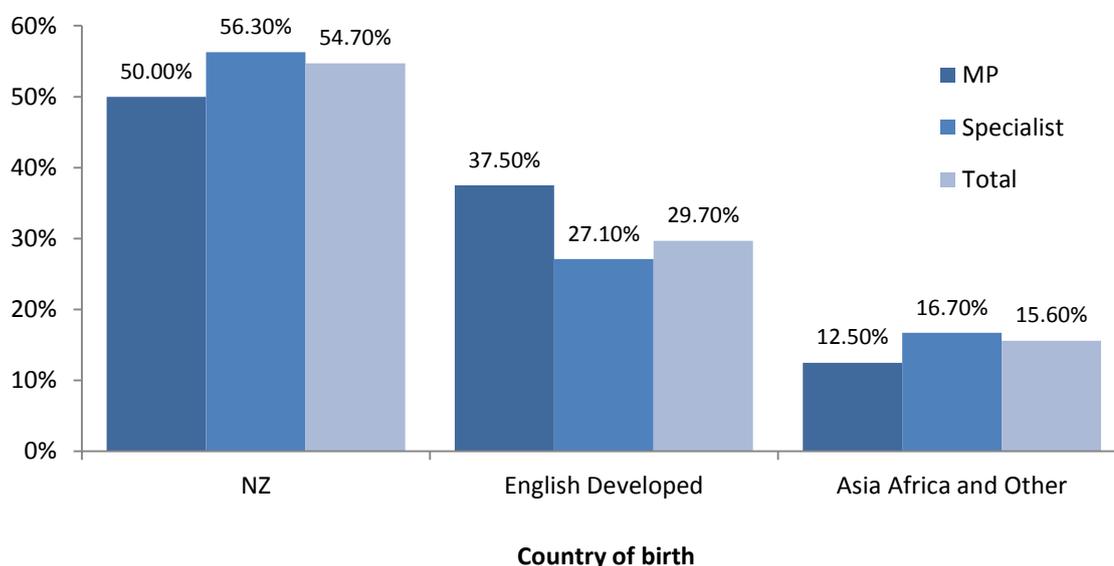


Figure 52. Country of birth by seniority.

As shown in Figure 52, the majority of the participants were those born in New Zealand, followed by those born in the other English-speaking developed countries. The fewest numbers were those in the “other” category. It is important to mention at this juncture that country of birth does not necessarily mean overseas-trained. The country where qualifications were sought was also of interest in regard to this population.

### 9.1.5 Country of qualification.

Participants were asked to indicate where their qualification was obtained. The categories given to participants to choose from included New Zealand, the English-speaking developed world and the ‘other’ category. As shown in Figure 53, the majority (62.5%, n=40) of the participants indicated that they qualified in New Zealand, while 23.4% (n=15) indicated that they qualified in other English-speaking developed world countries. There were fewer numbers in the “other” category, where 14.1% (n=9) of the participants indicated that they qualified in countries other than New Zealand or the English-speaking developed world countries.

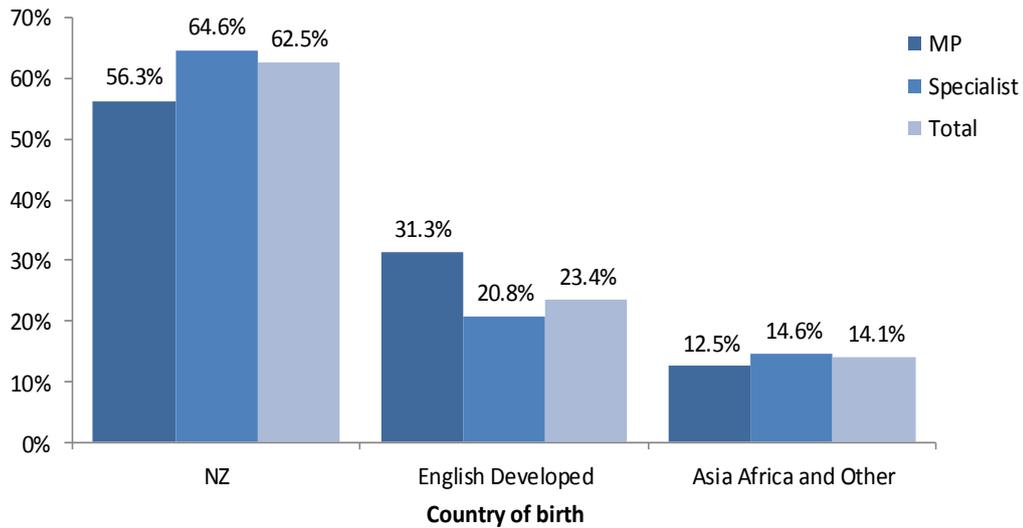


Figure 53. Country of qualification by seniority.

It is observed that the numbers are not a representation of the medical workforce population. In the New Zealand medical practitioner population in 2009, 41% of medical practitioners were trained overseas (Health Workforce New Zealand, 2013b).

### 9.1.6 Postgraduate pathway.

Participants were also asked information about their postgraduate training. It was necessary to ascertain this as there are some variations in employment conditions that may necessitate migration.

Table 42  
Postgraduate Training or Intended Postgraduate Training

	Pathology	radiology	GP	Paediatrics	Radiation	Physician/ surgical	Psychiatry	Other	Total
N	16	14	11	7	5	5	3	3	64
%	25%	21.8%	17.8%	10.9%	7.8%	7.8%	4.6%	4.6%	100.0%

From the above data (Table 42) it can be seen that most participants were from the pathology group and the radiology specialty groups. The numbers do not and were not meant to be representative of the sample of medical practitioners who migrated to Australia but rather represent those who willingly volunteered to participate.

### 9.1.7 Years worked in New Zealand.

Participants were also asked how many years they worked in New Zealand before migrating to Australia. As shown in Figure 54, the majority of participants were those who had worked in New Zealand for more than 10 years (57.1%, n=32). The fewest numbers were those of the group that had worked in New Zealand between 6-10 years (10.7%, n=6).

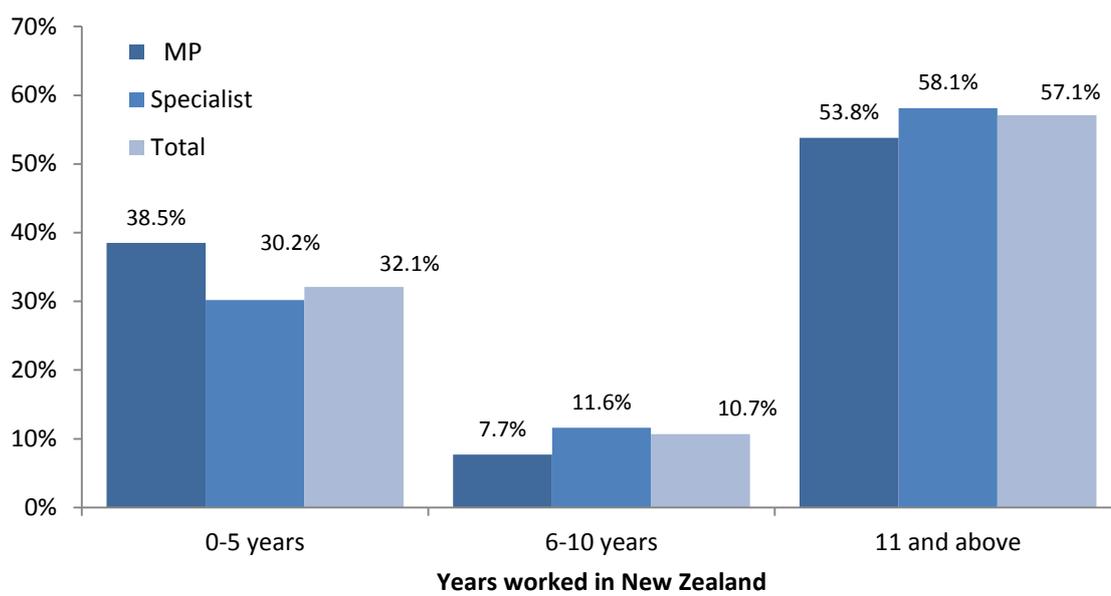


Figure 54. Survey participants' level of seniority by number of years worked in New Zealand.

It must be noted that the number of years participants had spent in New Zealand before they migrated is not necessarily representative of the years worked in New Zealand by the medical practitioners who moved to Australia. The numbers rather represent those participants who volunteered to take part in the survey.

## 9.2 Section B: Causes of Migration

Having given the demographic information of the participants, the next step is to present the results of the survey. The questionnaire sought to poll participants' opinions about known causes of migration as already cited in literature (e.g., Akl et al., 2008; Astor et al., 2005; Fitzjohn et al., 2003; Gill et al., 2001a; Lumely, 2011). The majority of questions were either directly taken or modified with permission (Appendix J) from Astor et al. (2005). These questions are attached in Appendix K. It was anticipated that participants would answer these questions based on the knowledge and experience they have about migrating to Australia. Table 43 shows the summary of factors that were surveyed.

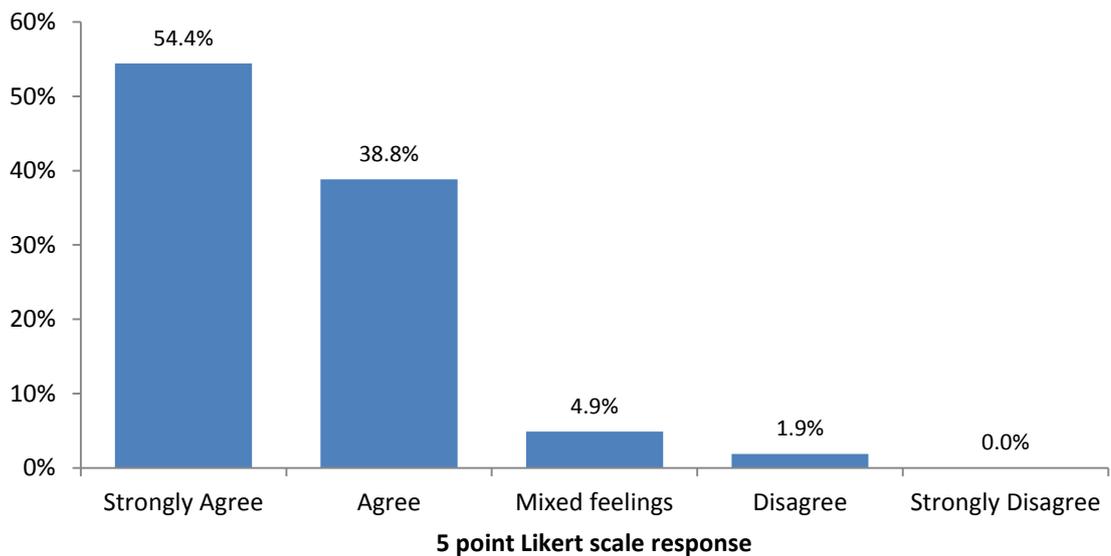
Table 43  
*Factors Surveyed among Medical Practitioners who Migrated to Australia*

<b>Question number</b>	<b>Factors surveyed</b>
11	Desire for better salaries
12	Overseas opportunities for Continued Medical Education
13	Opportunities for research
14	Heavy workload in New Zealand
15	Dissatisfaction with professional life in New Zealand
16	Dissatisfaction relationships and management
17	Desire for better access to enhanced technology, equipment and health facilities for medical practice
18	Desire to travel to a country with more medical jobs available
19	Desire to work in an academic environment with more colleagues in one's field of interest
20	Insufficient clinical exposure (number and variety of cases)
21	Desire for a currency with more buying power
22	Political stability, peace and safety from crime
23	Unfriendly student loan policies
24	Lack of educational opportunities for children
25	Networks of friends in Australia
26	Factor of citizenship or permanent residency

The views of 64 participants will be presented below using bar graphs. This method has already been explained in Chapter 5.

### **9.2.1 Desire for better salaries.**

Of the 64 respondents to the question asking how strongly participants agreed with the statement that medical practitioners migrate for better salaries, the majority indicated that they strongly agree (e.g. 40.6%, n=26); therefore salaries are a motivating factor in making decisions to migrate.



*Figure 55.* Desire for a better salary as a factor for leaving New Zealand: level of agreement by Likert scale category.

Overall, it is noted that the data that stands out mainly reveals that most participants chose the ‘strongly agree’ category (see Figure 55). It is noteworthy that the ‘disagree’ category had the fewest number of participants, while the strongly disagree category had none. This might be interpreted as being a sign that most participants tended to be clear in their perceptions of salaries as a motivating factor in the migration of medical practitioners to Australia.

### **9.2.2 Opportunities for training and continued professional development.**

Participants were also asked how strongly they agreed that training and continued medical education and professional development (CPD) is a motivator for migration to Australia. As shown in Figure 56, in a similar way to the question on salaries, a large majority of participants expressed strong feelings that this is a motivating factor by mostly selecting strongly agree (40.6%, n=26).

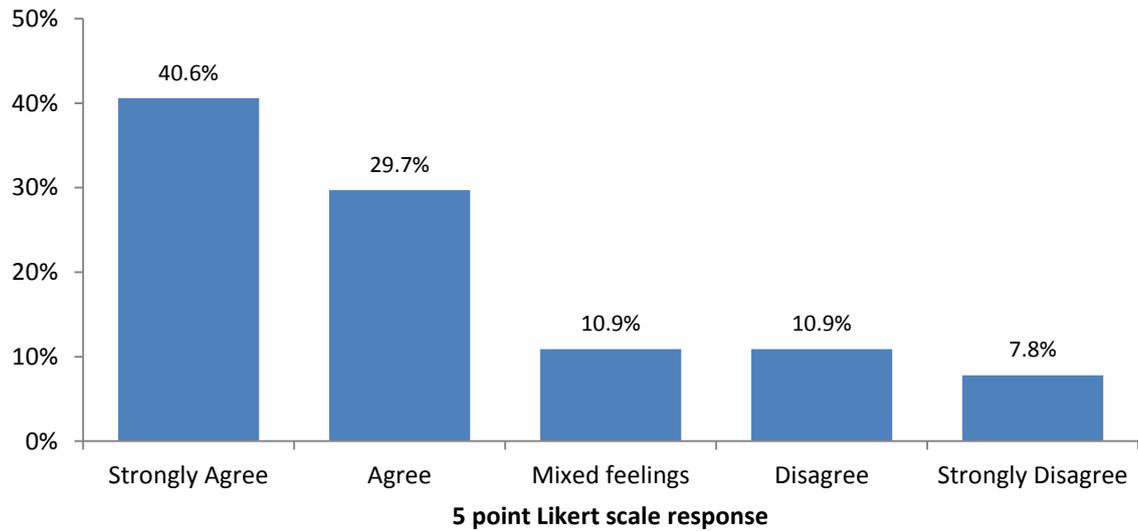


Figure 56. Opportunities for CPD as a factor for leaving New Zealand: level of agreement by Likert scale category.

Overall, it is concluded that the majority of participants expressed strong views that CPD was a motivator for medical practitioners to migrate to Australia. This was mainly signified by the fact that the majority of respondents chose the strongly agree option.

### 9.2.3 Opportunities for research.

The question on how strongly the participants agreed that research opportunities available in Australia are attracting medical practitioners had most participants mainly agreeing as shown in Figure 57.

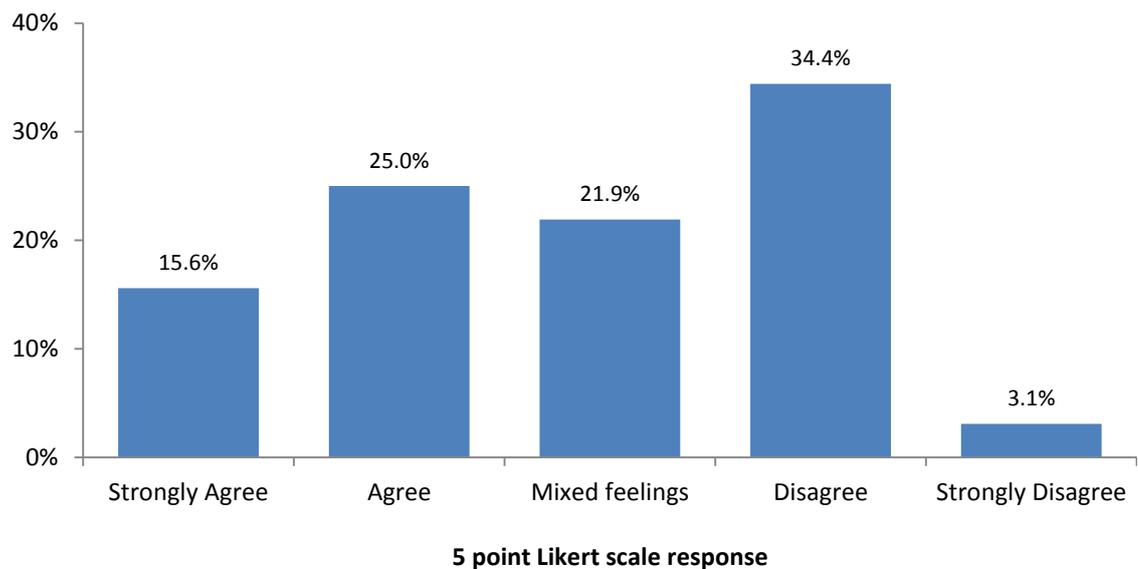


Figure 57. Better opportunities for research as a factor for leaving New Zealand: level of agreement by Likert scale category.

It is noted that the ‘strongly disagree’ was the least chosen option and this further adds weight to the agree categories. On the other hand, it is noted that the number of participants with mixed feelings and those who disagreed were high too.

#### 9.2.4 Heavy workload in New Zealand.

Respondents were also asked how strongly they agreed that the workload could be an issue that is a factor in migration to Australia. As shown in Figure 58, the majority of participants chose the ‘agree’ category (42.2%, n=27).

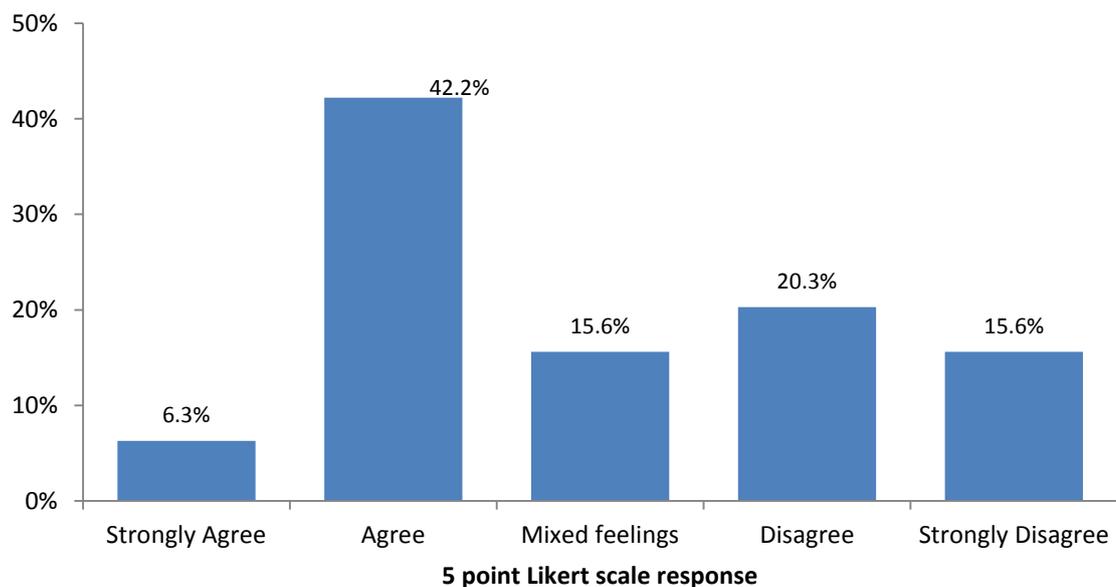


Figure 58. Heavy workload as a factor for leaving New Zealand: level of agreement by Likert scale category.

It is therefore seen that the majority of participants indicated that the workload is a factor of migration although few participants had ‘very strongly agreed’.

#### 9.2.5 Dissatisfaction with professional life.

Participants were also asked a question about dissatisfaction with professional life as a reason for leaving New Zealand. As shown in Figure 59, the largest group of 43.8% (n=28) chose ‘disagree’. Compared with how other questions were answered in this category, it is noted that there was a comparably larger number (18.8%, n=12) of participants who chose the ‘mixed feelings’ category.

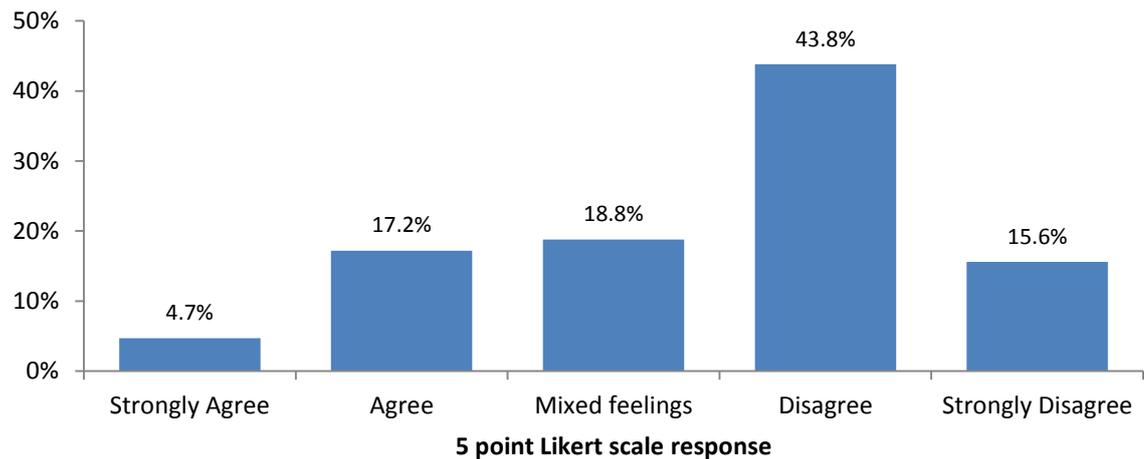


Figure 59. Dissatisfaction with professional life as a factor for leaving New Zealand: level of agreement by Likert scale category.

It was noted that there were fewer participants in the ‘agree’ categories than the disagree categories, with over half in the latter (59.4%, n=38). It is noted also that there were comparably higher numbers in the ‘mixed feelings’ category than other questions answered in this category. In summary, the majority of participants did not agree that dissatisfaction with professional life is a factor in the decision to leave New Zealand.

### 9.2.6 Dissatisfaction with relationships, including management.

Participants were also asked how strongly they agreed that dissatisfaction with relationships is a factor in migration decisions. As shown in Table 44, there are two outstanding things about the distribution of responses in this question. Firstly, few participants chose the extreme side of disagree; while on the other side there was a comparably larger number who chose the extreme side of strongly agree. Another unique thing about the way this question was answered was that there was a large number who chose the ‘mixed feelings’ category.

Table 44  
Dissatisfaction with management relationships: level of agreement by Likert scale category

	Strongly Agree	Agree	Mixed Feelings	Disagree	Strongly Disagree	Total
N	12	25	18	5	4	64
%	18.75%	39.1%	28.12%	7.81%	6.25%	100.0%

Generally, participants seem to be agreeing that dissatisfaction with relationships is an issue that leads to the migration of medical practitioners from New Zealand to

Australia. It is also notable that a large number of participants seem to have mixed feelings about this issue.

### 9.2.7 Access to technology, equipment and facilities.

Participants were also asked how strongly they agreed that access to technology, equipment and facilities could be a factor for migrating. Figure 60 shows that the majority of responses fell in the combined categories of ‘strongly agree’ (17.5%, n=11). However, even when the undecided participants were put together with the participants in the ‘disagree’ (17.5%, n=11) and ‘strongly disagree’ (7.9%, n=5) categories, they tended to be outnumbered by those in the ‘agree’ categories.

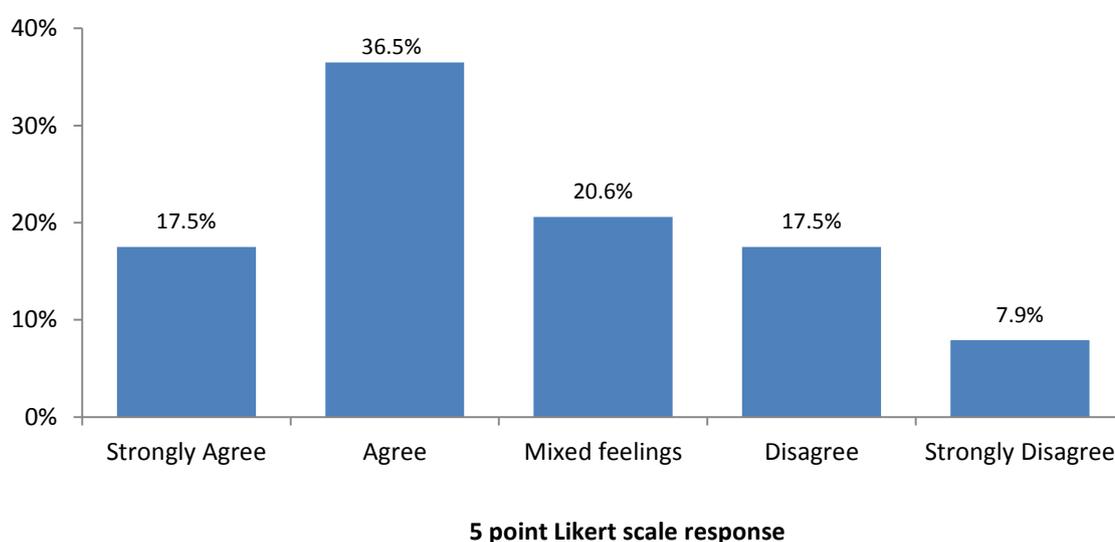
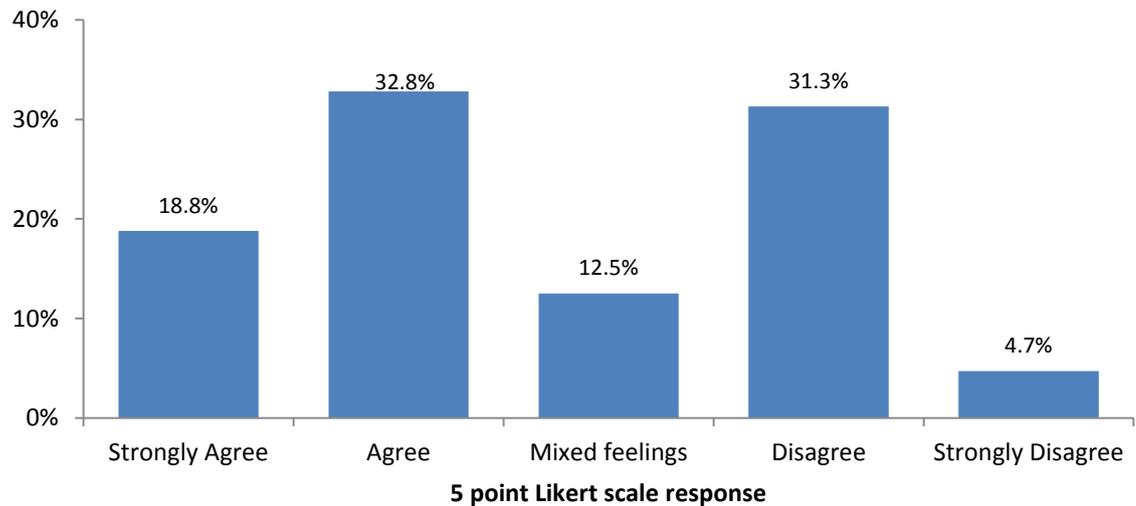


Figure 60. Access to technology, equipment and facilities as a factor for leaving New Zealand: Level of agreement by Likert scale category.

It is noted that the issue of equipment and technology seems to be rated mostly in the ‘agree’ categories, with most participants tending to think that Australia has better equipment, technology and other facilities.

### 9.2.8 Travel to a country with more medical jobs.

Of the 64 respondents to the question on how strongly they agreed that moving to a country with a variety of medical jobs is a factor, the majority of the participants chose the ‘agree’ (32.8%, n=21) category (see Figure 61). The participants who chose the ‘disagree’ category were almost the same in numbers as those who chose the ‘agree’ category; that is, there was a difference of only one participant.

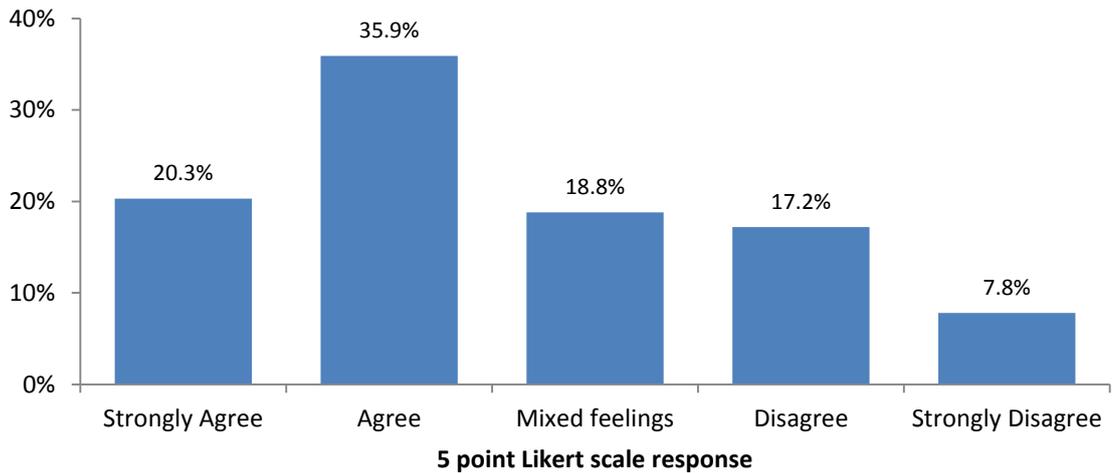


*Figure 61.* Travel to a country with more medical jobs as a factor for leaving New Zealand: level of agreement by Likert scale category.

The most important thing that stands out about the pattern of results is that there were a similar number of participants who chose ‘agree’ and ‘disagree’. This might mean that participants are divided about the issue. However, it is still noted that the largest number of participants were in the ‘agree’ categories.

### **9.2.9 The need to work in an environment with more colleagues in field of interest.**

The 64 respondents to the question on how strongly participants felt that migrating to an environment with more colleagues in fields of interest is a factor in decisions to migrate to Australia, was also answered by the majority of participants in the agree categories. (see Figure 62). There was a similar spread of participants in the ‘mixed feelings’ and ‘disagree’ categories. The fewest number of participants chose ‘strongly disagree’.

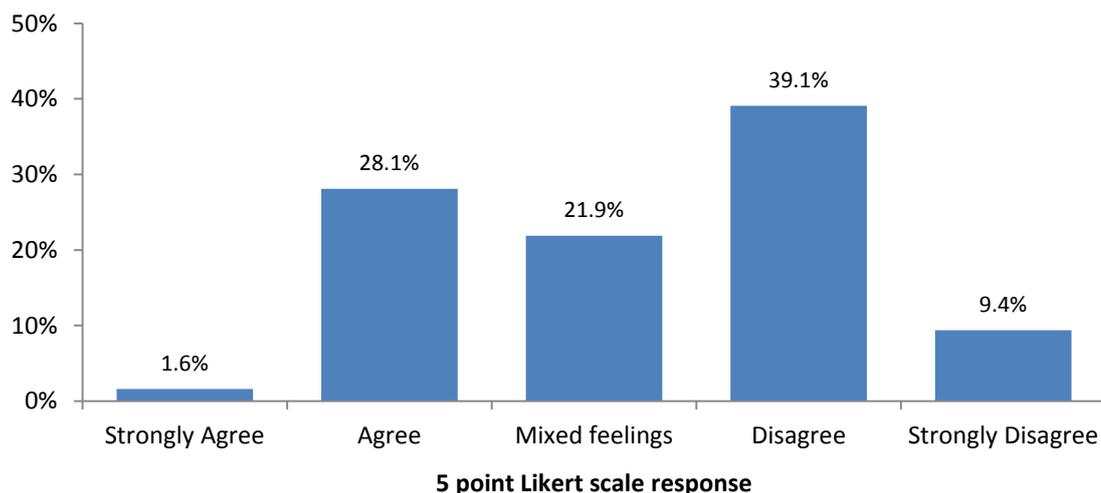


*Figure 62.* The need to work in an environment with more colleagues in field of interest as a factor for leaving New Zealand: level of agreement by Likert scale category.

The conclusion that can be drawn from this question is that the majority of participants tend to agree with the statement that migrating to a country with more colleagues in the field of interest is a factor influencing migration. The distinct thing about how this question was answered is that the ‘agree’ and the ‘strongly agree’ choices each have a higher number of participants compared with each of the other categories.

**9.2.10 Insufficient clinical exposure to a variety of clinical cases.**

Participants were also asked to respond to a question on how strongly they agreed that the variety of clinical cases can be a reason to migrate to Australia. Figure 63 shows that the majority of the participants disagreed with the statement; with most choosing the disagree categories. The ‘mixed feelings’ category also had a larger number (21.9%, n=14).

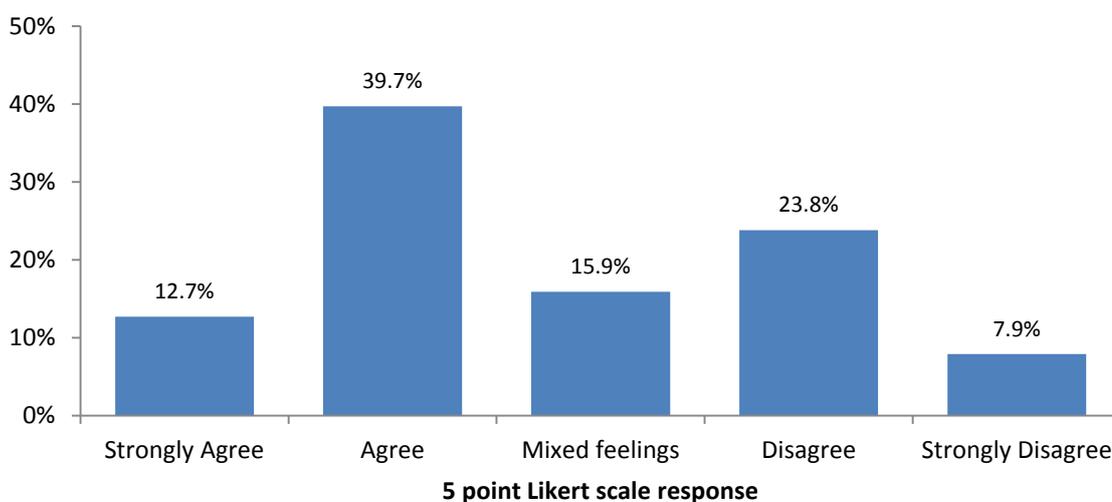


*Figure 63.* Insufficient clinical exposure to a variety of clinical cases as a factor for leaving New Zealand: level of agreement by Likert scale category.

It is noted that, although fewer participants thought that a variety of clinical cases was not a reason for migrating, in the open-ended questionnaire responses, and also in the interviews, participants raised the issue about wanting a greater variety of clinical cases being a cause of moving to Australia. These were mainly participants in sub-specialities.

#### **9.2.11 Desire for a currency with greater buying power.**

Participants were also asked how strongly they agreed that moving to Australia is motivated by greater buying power of the currency. The majority of participants tended to agree with this statement.



*Figure 64.* Desire for a currency with greater buying power as a factor for leaving New Zealand: Level of agreement by Likert scale category.

As can be seen in Figure 64, most participants agreed with the fact that the greater buying power of the Australian dollar is important in making a decision to migrate. This response is consistent with the fact that participants tended to strongly agree on questions related to remuneration and pay packages on both questionnaires.

### 9.2.12 Factor of political stability, peace, safety from crime.

Participants were also asked whether peace, crime and political stability could be a factor in making decisions to move. As shown in Figure 65, the majority of participants chose the ‘agree’ category and few participants had mixed feelings about this question. In the ‘disagree’ category there was an equal spread of participants who chose ‘disagree’ and ‘strongly disagree’.

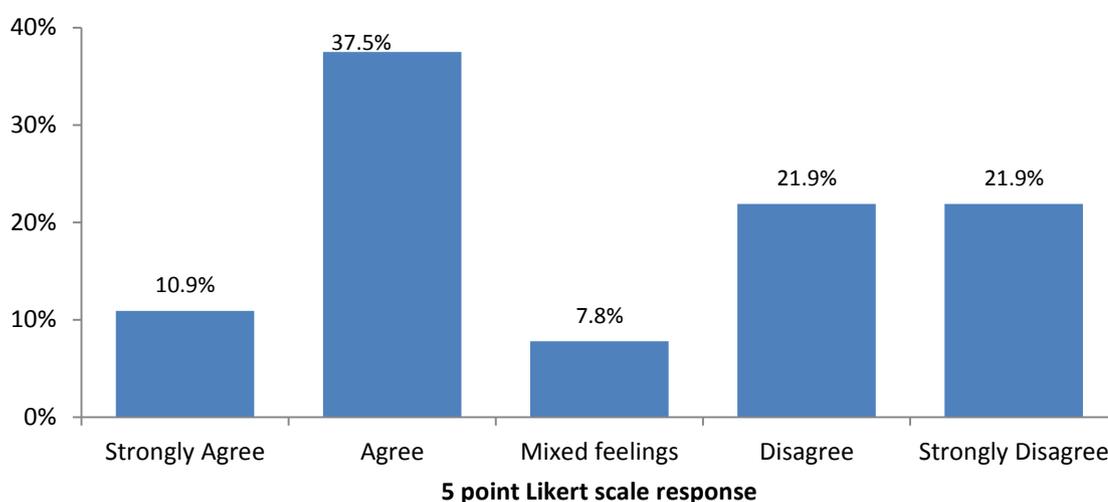


Figure 65. Political stability, peace and safety from crime as a factor for leaving New Zealand: level of agreement by Likert scale category.

Figure 65 demonstrates that the majority of participants are showing agreement by choosing the agree categories.

### 9.2.13 Unfriendly student loan policies.

The question of unfriendly student loan policies was asked of participants and a large number of participants thought that unfriendly student loan policies were a factor in the emigration of medical practitioners. Figure 66 shows that the largest number of participants selected the ‘strongly agree’ category followed by the ‘agree’ category. A comparably small proportion of participants chose the ‘mixed feelings’ category.

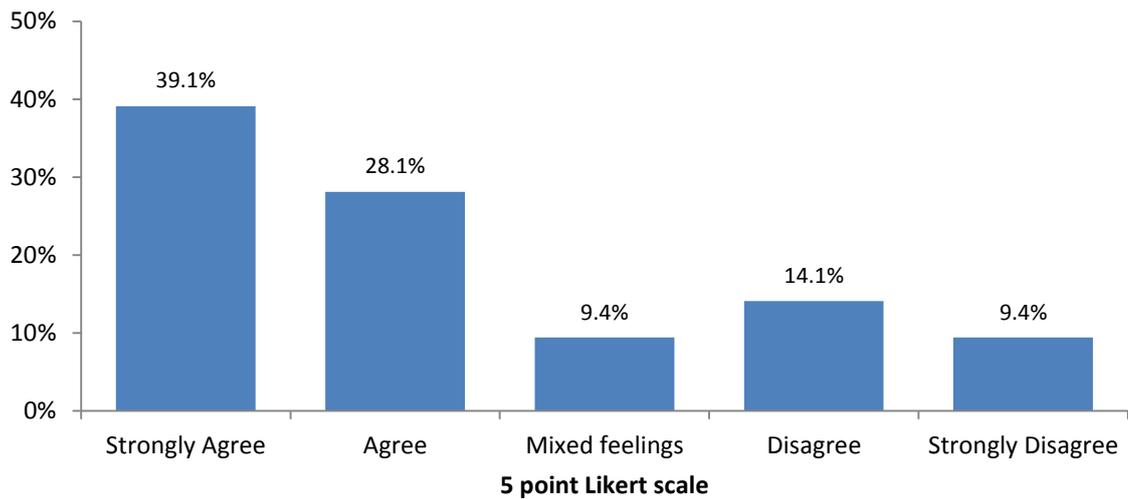


Figure 66. Unfriendly student loan policies as a factor for leaving New Zealand: level of agreement by Likert scale category.

It can be seen that the largest number of participants demonstrated strong feelings by choosing the ‘strongly agree’ category.

#### 9.2.14 Lack of educational opportunities for children.

Participants were also asked how strongly they agree that educational opportunities for children could be a factor in migration. Figure 67 shows that few participants chose the ‘agree’ category. The ‘mixed feelings’ category also had few participants. The categories that were chosen by most participants were the ‘disagree’ categories where 43.8% (n=28) chose to ‘disagree’ and another 23.4% (n=15) chose ‘strongly disagree’.

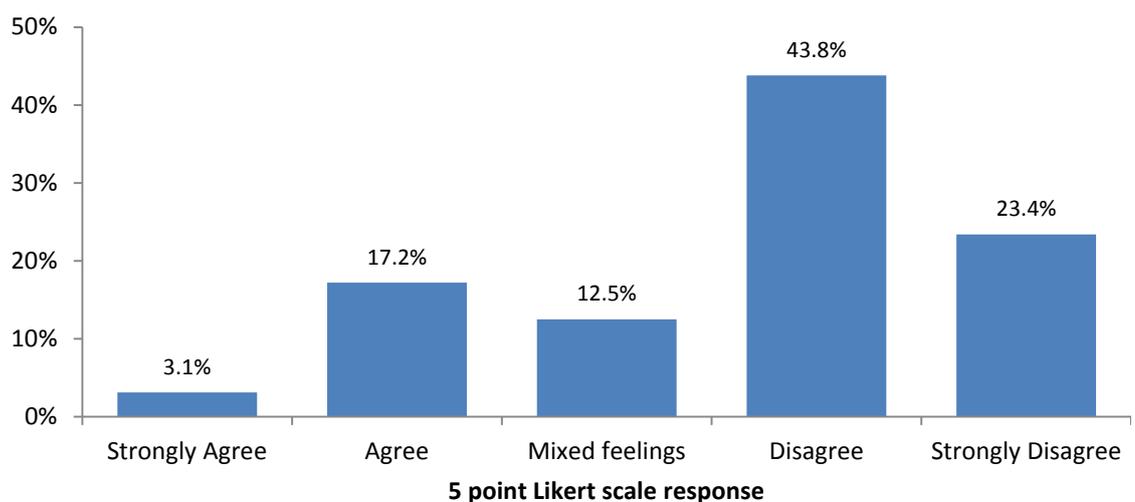


Figure 67. Lack of educational opportunities for children as a factor for leaving New Zealand: level of agreement by Likert scale category.

One important thing to note in this question is how the extreme responses of ‘strongly’ were answered. For example, there was just 3.1% (n=2) who ‘strongly agreed’ compared to the large number, 23.4% (n=15), who strongly disagreed. This means that there were few participants who thought that moving to Australia could be motivated by children’s educational opportunities.

### 9.2.15 Networks of friends.

The question about the networks of friends had fewer participants responding in the ‘agree’ categories than the ‘disagree’ categories. The ‘mixed feelings’ category had few participants, only 7.9% (n=5). The disagree categories had the most number of participants mostly disagreeing.

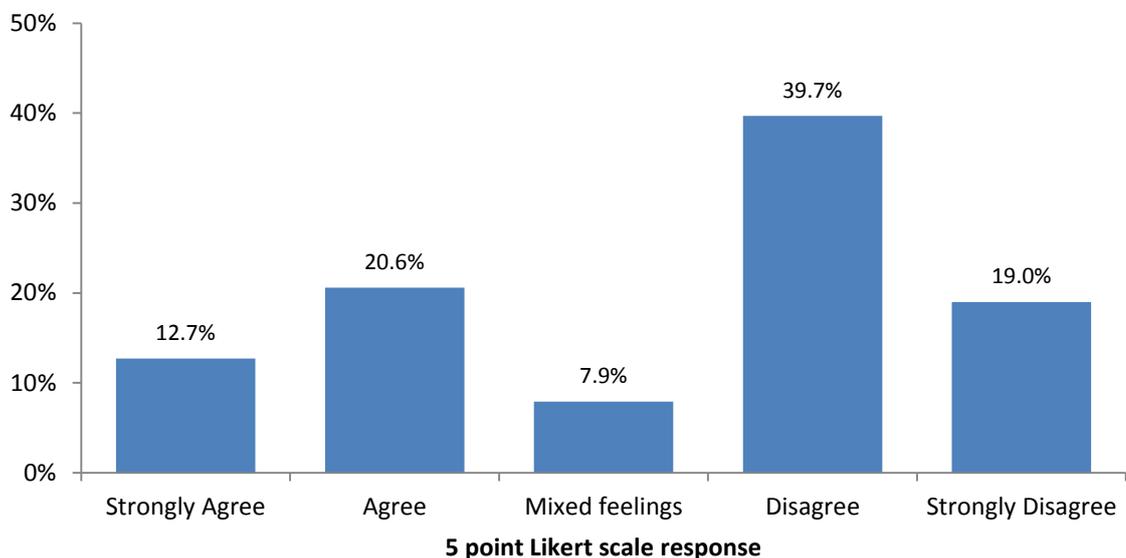
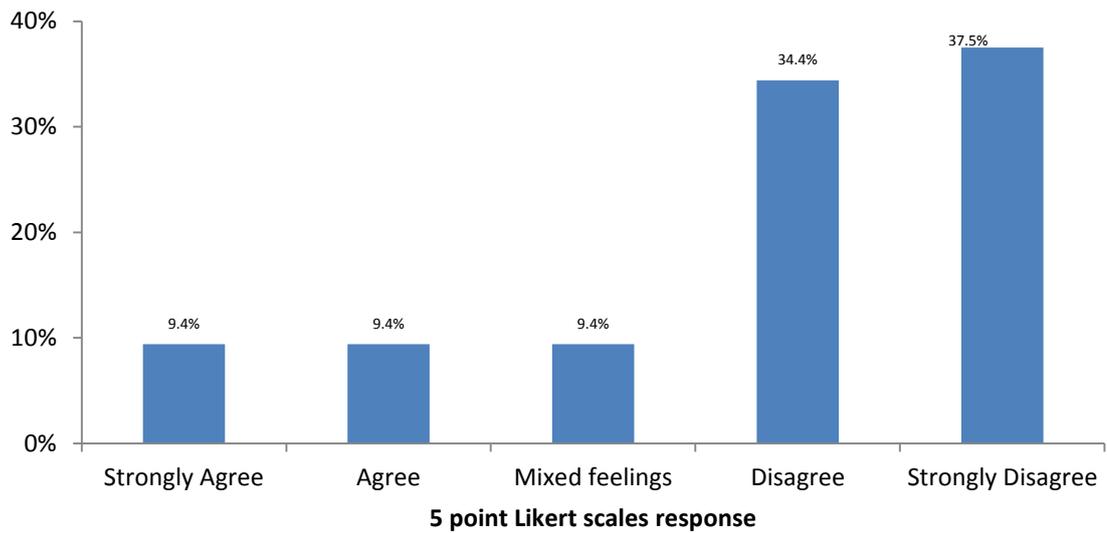


Figure 68. Networks of friends as a factor for leaving New Zealand: level of agreement by Likert scale category.

As shown in Figure 68, few participants indicated that they agree that networks of friends are a factor in decisions to migrate.

### 9.2.16 Citizenship or permanent residency.

Participants were also asked about whether having New Zealand citizenship could be a factor in making migration decisions. Fewer numbers of participants chose the ‘agree’ categories. As shown in Figure 69, there was an equal spread of participants in the ‘strongly agree’ category, the ‘agree’ category and the ‘mixed feelings’ categories, with each having 9.4% (n=6) of the total number of respondents to this question. Most participants chose the ‘disagree’ categories.



*Figure 69.* Citizenship or permanent residency as a factor for leaving New Zealand: level of agreement by Likert scale category.

Figure 69 demonstrates that the majority of participants seemed not to agree that having citizenship is a factor to consider when making decisions to migrate to Australia. It must be noted that a large number of participants came from English-speaking countries where visa requirements are not as strict as some non-English-speaking countries. In addition, all medical practitioners fall in the category of occupations which are given preference due to skill shortages in New Zealand and in Australia. Hence, movement will not be an issue when travelling. This could explain the reason why many medical practitioners thought this was not an issue. It is, however, noted that some participants still chose that having residence or citizenship is something to be considered. This could be because some participants were moving with families and it can be stressful applying for visas for other family members, although for skilled categories it is not as hard as for other general migration visas.

### **9.3 Analysis of Open-Ended Texts**

The participants also responded to the prompt questions as indicated in appendix F; the open-ended question section. *Table 45* provides a summary of the themes that emerged in response to these prompts. It can be seen from these themes that the most cited reasons for migrating were higher salaries in Australia (n=19), followed by reasons concerning the pay packages (n=13) and dissatisfaction with relationships (n=12). Lifestyle (n=10) and research issues (n=10) tended to be cited by a similar number of times, as were specialist training (n=9) and family (n=9). The least cited reasons were those associated with student loan issues (n=8), job availability (n=7), stronger economy

(n=5), taxation (n=4), systemic issues (n=3) and the social and political issues (n=3). Reasons associated with adventure (n=5) and other personal factors (n=6) could be combined together to make 11 responses since they appear to be similar.

Table 45

*Summary of Issues Raised in Open Ended Question Responses*

<b>Issues raised by respondents (n=54)</b>	<b>Sample extracts</b>
Higher pay in Australia (n=19)	“Decent pay, postgraduate training opportunities, normal housing prices.”
Pay packages (n=13)	“Educational perks.” “...better remuneration package”.
Student loan issues (n=8)	“...student loans”
Taxation (n=4)	“.....higher taxes i NZ” “...pay fees + interest+ high taxes!!”
Lifestyle in Australia (n=10)	“Better climate in Australia.... Larger cities.” “climate and life style”
Research issues (n=10)	“More research funding. A community of recognized experts in global health.” “More advanced training/fellowship opportunities with research on offer.”
Systemic issues (n=3)	“Unable to register” “poor recognition [of IMGs]”
Specialist training (n=9)	“A training job in pathology”. “Higher pay. Getting the intern job I wanted”.
Dissatisfaction with relationships in New Zealand (n=12)	“More influence in the running of our departments and services”. “Reasonable managers who acted for patient safety”. “Doctors having more autonomy within the hospital system.”
Personal factors (n=6)	“Apart from the personal factors, I was entirely happy in NZ.” “Very hard to say”.
Adventure (n=5)	“Opportunity to travel” “wanted to see UK, Europe”
Stronger economy (n=5)	“Stronger economy.” “Better economy”
Job availability (n=7)	“An available job”. “speciality training”
Family (n=9)	“Husband employed”. “Have come to Australia to be near our family”
Social and political issues (n=3)	“Racial unrest.” “NZ is too socially conservative”

#### **9.4 Summary of Findings**

This summary will mention things that stood out from this presentation of the findings. Firstly, it is important to mention that what stands out is that there appears to be a hierarchy of importance of the factors that necessitate migration. Secondly, it is important to mention the observation that some questions had extreme responses on the ‘agree’ side of the Likert scale. These questions included the ones on issues related to higher income and the one on remuneration packages. On the other hand, other questions had extreme responses on the ‘disagree’ side. It is also important to mention that there were some questions that had responses expanded on in the open-ended question texts and other questions on which the participants were just silent about in the open-ended question responses. For example, participants did not mention anything about the importance of citizenship or permanent residency in their migration to Australia. These scenarios could be interpreted in two ways. Firstly, it could indicate that they were not of immediate importance to participants, and secondly, that they are probably policy and strategic issues that medical practitioners do not deal with on a day to day basis.

Another outstanding feature of the survey concerns the fact that in the open-ended texts there are some things that appeared consistently in a fashion that was congruent with the way the quantitative questions were answered. These issues included salaries, pay packages and CPD. There were also other issues that seemed to be pronounced in the open-ended question responses, although they were not in the quantitative questions. Examples of these were family and relationship issues. Lastly and most importantly, there were also new items that arose such as personal factors and adventure. These issues emerged even though they were not raised in the quantitative questions.

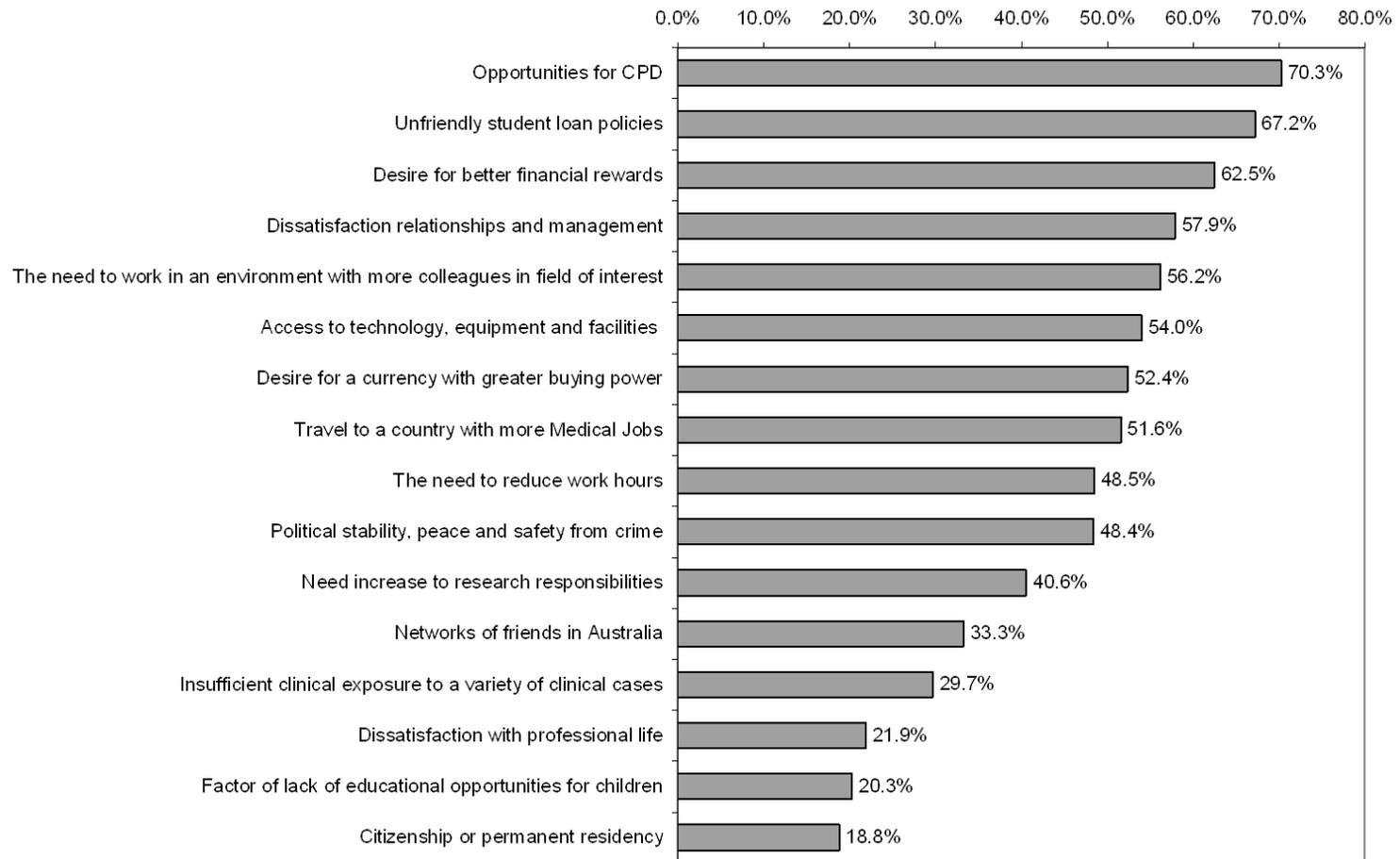


Figure 70. Summary of results showing ‘strongly agree’ and ‘agree’ combined percentage for each category.

Figure 96 presents a summary of the survey responses in the ‘agree’ and ‘strongly agree’ categories on the Likert scale. As shown, the majority of the sample reported that opportunities for Continuing Professional Development (CPD) (70.3%), unfriendly loan policies in New Zealand (67.2%), desire for better financial rewards (62.5%), dissatisfaction with relationships and management in New Zealand (57.9%) and the need to work in an environment with more colleagues in their field of interest (56.2%) were key influences on their decision to emigrate to Australia. It is noteworthy that the top three factors selected were related to financial and remuneration issues while the fourth and fifth cited factors were related to relationship issues and career advancement.

## **9.5 Conclusion**

There are three main conclusions that can be drawn from this presentation. Firstly, the quantitative questionnaire results and the open text count of constantly mentioned reasons reveal that there is a hierarchy of importance of reasons for migration. However, these results are inconclusive as the questionnaire was not initially designed to find out the hierarchy. This is rather a pattern that emerged from the findings. The issue of the hierarchy of importance of reasons for migration will therefore be pursued in the discussion chapter. Secondly, the fact that there are some themes where there was congruency between quantitative questions and open-ended texts may suggest that these issues are important to the medical practitioners and hence may warrant attention of workforce planners. In almost all questions there were at least some participants, though few in some. In a research study where priority weighting is placed in a qualitative paradigm this is important to note, as it adds to the complexity of decision-making processes about migration.

## Chapter 10: Discussion

### Introduction

This chapter discusses the results of both the qualitative interviews and survey results as well as literature review and relevant theories in order to make sense of the study findings. This chapter will begin by giving the rationale for adopting motivation theories to conceptualise the findings. It will then move on to discussing the causes of trans-Tasman migration, together with strategies for dealing with the issue. Since the other intent of the discussion chapter is to synthesise and interpret the information presented in the preceding chapters, it is important to revisit the study research questions:

1. What are the dominant characteristics of the New Zealand medical workforce scene and how do these contribute to issues related to adequacy and migration to Australia?
2. What are the opinions of medical practitioners and other key workforce experts about causes and ways of managing medical workforce migration from New Zealand to Australia?
3. How does the phenomenon of medical practitioner movements from New Zealand to Australia relate to other issues of global dynamics of medical practitioners?
4. What is a possible conceptual framework for representing the factors and ways of managing the New Zealand medical practitioners' decisions to migrate across the Tasman to Australia?

The qualitative results chapters helped to capture the causes of migration and ways of dealing with these. The quantitative results chapters showed the hierarchy of importance of these according to how they were perceived by participants. A further merging of qualitative interview results' themes of New Zealand based participants (Table 28) and the medical practitioners who migrated to Australia (Table 29) was carried out in order to get major themes. As shown in Table 46, the new major themes were research, training and career aspirations; remuneration and alternative pay packages; working conditions, management and collegial relationships factors; and intervening factors. While it can be argued that some of these major themes could be summarised by one

word, some of the words such as ‘remuneration’, ‘research’ were preserved just to honour participants’ expressions. Although the questionnaire was not originally designed to find out the hierarchy of factors influencing decisions to migrate, in terms of ranking of importance, it emerged in the quantitative results that research training and career aspirations, salary and intervening factors such as family, lifestyle and personal issues were the most highly rated factors.

Table 46  
*Major Themes*

---

**Major themes**

---

Research, training and career aspirations  
 Remuneration and alternative pay packages  
 Working conditions  
 Management and collegial relationships factors  
 Systemic, policy and social factors  
 Intervening factors

---

The major themes are discussed in this chapter, utilising migration theories and motivation theories that were chosen on the basis of the emergence of the major themes. In this case, the approach taken to utilise theories in this chapter is of a deductive nature; meaning that the study findings are driving the use of a theoretical framework rather than vice-versa. This therefore justifies the use of new theories that have not been discussed in previous chapters; the motivation theories and Lee’s push-pull factor theory. This is in line with qualitative research thinking (Crotty, 1998) which is dominant in this mixed methods research (Johnson et al., 2007).

**10.1.1 Rationale for discussing major themes in the framework of motivation theories.**

While the migration theories presented in Chapter 3 have helped to understand how the Trans-Tasman migration of medical practitioners relates to conventional patterns of migration, theoretical frameworks to be used in this chapter are those based on the findings of the results. These theories, such as motivation theory, are utilised because in the process of understanding and conceptualising the findings, three things about the themes that emerged stood out. Firstly, the findings revealed the importance of unique individual decision-making factors in migration. Secondly, the quantitative results indicated that there is a hierarchy of importance of reasons for migration. Thirdly, the results indicated that the immediate work environment and broader social environment

have a bearing on the individual medical practitioner's decision to migrate. Fourthly, the motivation theory can offer insights into both causes of, and strategies for dealing with, the migration issue.

Indeed, the basis of utilising motivation theories can be likened to arguments of migration scholars such as Bakewell (2010) and Massey et al. (1998). They posited that in addition to other important factors, consideration of the motivations, goals and aspirations of the people who migrate is one of the major aspects of any theoretical account of international migration. Use of the motivation theory also stems from the fact that the issue being researched is about understanding what makes employees make the decision to leave one workplace in preference for another. It is therefore important to understand the theories that explain what 'motivates' employees to stay or move. Consequently, it will be necessary to define motivation before proceeding.

Motivation can be defined as the processes that account for an individual's intensity, direction and persistence of effort toward attaining a goal. In most cases, motivation stems from a need which must be fulfilled and this in turn leads to a specific behaviour. An example of this is taking pride and feeling good about a job well-done (Lambrou, Kontodimopoulos, & Niakas, 2010).

On this note, scholars (Carroll & Dwyer, 1988) have consistently called for the understanding of motivation theories in situations where health systems are faced with a turnover of staff. An example was Carroll and Dwyer's (1988) call for understanding of motivation theories at a time when there was a high turnover of nursing staff in the public hospitals of New South Wales, Australia (Carroll & Dwyer, 1988). They argued that a greater appreciation of the causes of the shortage, and strategies for its resolution, can be gained by presenting the issues from the perspective of Herzberg's Motivation-Hygiene Theory (Herzberg's theory).

Herzberg's theory (Herzberg, 1964; Herzberg, Mausner, & Snyderman, 1959) proposes that certain 'motivator' and 'hygiene' factors can respectively affect job satisfaction and dissatisfaction. A summary of these is shown in Table 47. According to Herzberg, motivation factors provide satisfaction to workers and they include achievement and recognition, the work itself, responsibility, advancement and potential for personal growth. On the other hand, hygiene factors produce dissatisfaction, and they include physical working conditions; employer policies and administrative practices; interpersonal relations; and salary. The study's major themes indeed do link with these

factors, as can be seen in Table 46. It is also important at this juncture to state that Herzberg emphasised that factors for dissatisfaction do not result in satisfaction if they are met but rather result in a state of ‘no dissatisfaction’, or in simple terms, ‘no discontentment’.

It is also important to mention how Herzberg’s theory, the migration theories and the study’s major themes link. In terms of migration theories, Lee’s (1966) push-pull factor theory can offer insights in this case. Thus, if the place of origin, New Zealand, has conditions of dissatisfaction, these can act as push factors. On the other hand, if the destination, Australia, can offer conditions of satisfaction, these can act as pull factors. In this study, it must be noted that hygiene factors should be seen also in terms of the health system as a whole and also in terms of the general national outlook; for example, in the context of taxation policies. This also links with what Ravenstein stated about bad governments being the drivers of migration (Ravenstein, 1885).

Table 47  
*Herzberg’s Motivation-Hygiene Theory*

<b>Factors for Satisfaction (Motivation)</b>	<b>Factors for Dissatisfaction (Hygiene)</b>
Achievement	Company Policies
Recognition	Supervision
The work itself	Relationship with supervisor and peers
Responsibility	Work conditions
Advancement	Salary
Growth	Status
	Security

Herzberg’s theory implies that the managers must place stress upon guaranteeing the adequacy of the hygiene factors to avoid employee dissatisfaction. On the other hand, managers must make sure that they focus on the motivational factors to improve work quality so that workers will find work stimulating and rewarding and hence produce better work outcomes. In this instance, it can be seen that this theory offers insights about what health workforce stakeholders should do in New Zealand in order to retain the medical workforce.

### **10.1.2 The hierarchy of importance of the factors leading to migration.**

As stated earlier, the quantitative results findings revealed that there is a hierarchy of importance of reasons for migration. Although these findings were inconclusive in

terms of the actual order of the hierarchy, further discussion can be conducted by framing the findings in Abraham Maslow's theory (Maslow's theory) of motivation (Maslow, 1954). This theory is based on the assumption that there is a hierarchy of five needs within each individual and this hierarchy portrays the urgency or the order in which these needs are to be met, as can be seen in Figure 71. According to Maslow, the very basic needs are physiological needs: for air, water, food, clothing and shelter. At the second, but still basic level, there are safety needs such as for physical, environmental, and social safety. The higher order needs include a third level of social needs, such as affection and belonging needs. The fourth level contains esteem needs and this includes recognition, status and admiration. The highest level is that of self-actualisation.

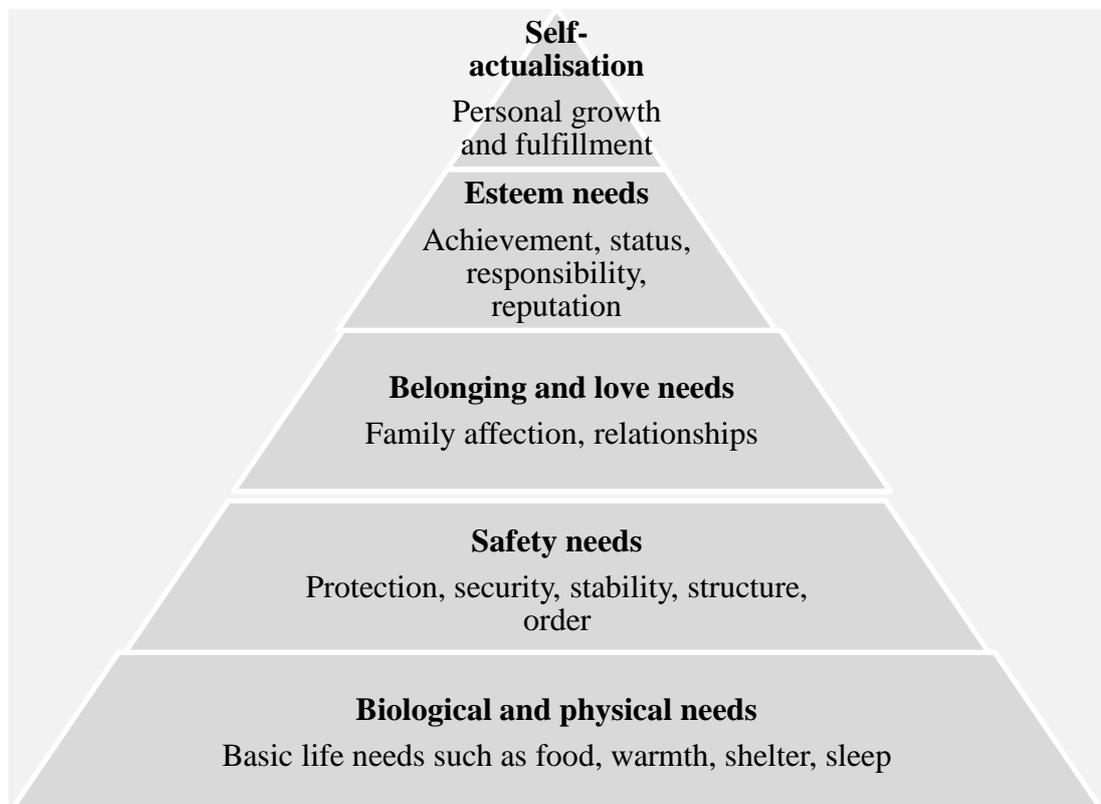
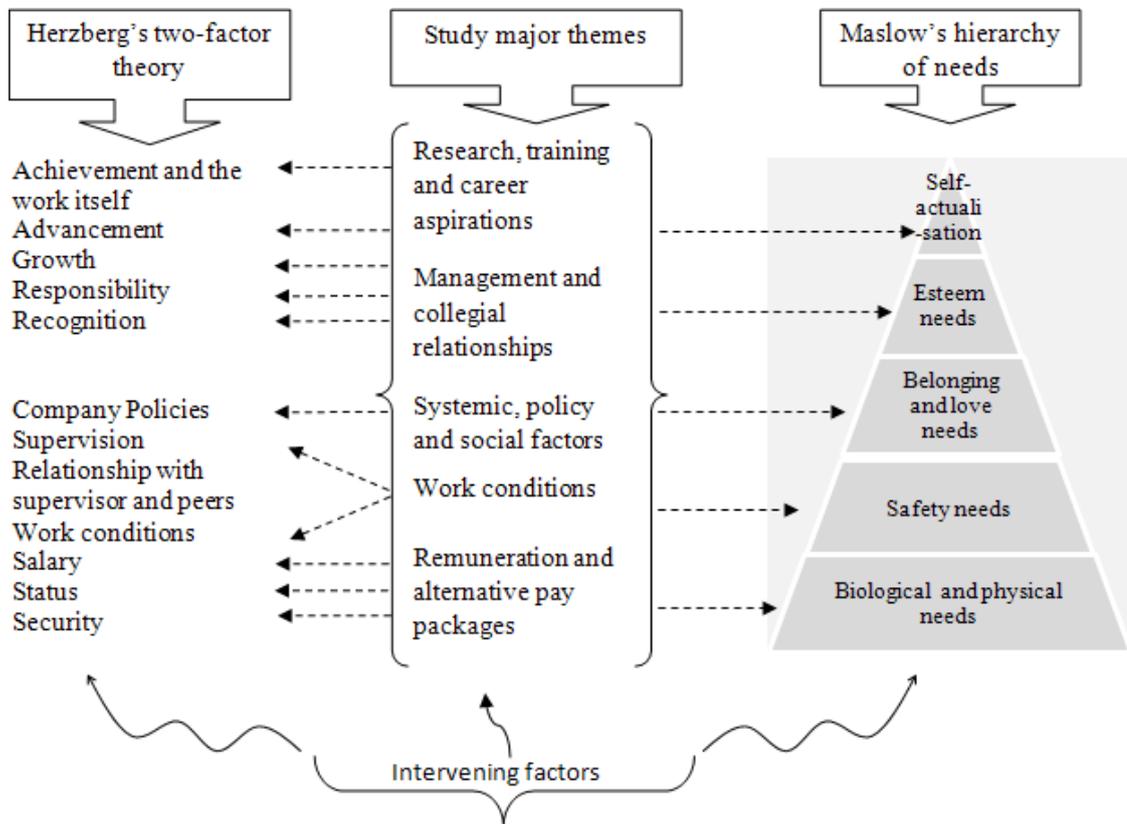


Figure 71. Maslow's Hierarchy of Needs.

Herzberg's theory has weaknesses that stem from the fact that he dichotomised work conditions and also that he is restricting in explaining what results from having or lacking these factors. While Maslow's theory has strengths in terms of being flexible rather than rigid, his theory also has weaknesses. An example of these is that not all employees are governed by the same set of needs. Different individuals in a diverse society like New Zealand may be driven by different needs.

Both Maslow's theory and Herzberg's theory have something to offer in terms of helping to understand the issues presented by the medical practitioners. While these weaknesses are noted, it is important to consider the insights that are derived from these theories. The study's major themes are therefore positioned within the framework of these theories, as shown in Figure 72.



*Note: 1.* Intervening factors sit outside as they interrelate with all factors and the curly arrows indicate these factors are dynamic.

*Note: 2.* The direction of arrows point to approximate rather than distinct positions of linkages between findings and theories

*Figure 72.* A concept diagram of study major themes and motivation theories.

This figure is only an approximate illustration and an attempt to show how the study's major themes and the motivation theories link. This is important because in the sections to follow, the motivation theories will be used as frameworks for discussing these findings. The discussion that follows will therefore utilise Herzberg and Maslow's theories to make sense of the major themes of this study.

## 10.2 Discussion of Causes of Migration

The first section discussing the causes of migration will focus on the factors that were seen to be push factors in New Zealand and these relate to what Herzberg called the

hygiene factors. Such factors are under the major themes of salaries, management and collegial relations and working conditions.

Generally, the study findings about the causes of migration are to some extent consistent with the research that was conducted by the Medical Council of New Zealand (Lumely, 2011). This was a survey of 182 medical practitioners who were leaving New Zealand, over a 15 month period. The survey was aimed at determining why they chose to leave New Zealand and what might encourage them to return. The study found that the main reasons for the medical practitioners leaving New Zealand, in order of importance, were related to training and work and experience; higher income; family reasons; and better working conditions. Similar to the findings above was what came out of another study by Moore et al. (2006) who found that 65% of respondents intended to leave New Zealand within three years of graduating. The most important factors influencing their decision to leave New Zealand were overseas travel, financial opportunities, and job/training opportunities. The results will be discussed below in the framework of motivation theories, starting with remuneration and alternative pay packages as a cause of the trans-Tasman migration.

### **10.2.1 Major theme: Remuneration and alternative pay packages.**

#### *Higher salaries.*

Herzberg's theory categorised salaries under hygiene factors and therefore indicated that salaries are not motivators, but rather can cause either dissatisfaction or no dissatisfaction. In both the New Zealand questionnaire and the Australian questionnaire, the unique thing about the way this question was answered is the fact that this was the only question where the majority of participants chose the extreme response of strongly agree.

The extreme responses indicated that the perception that salaries are higher in Australia is an attraction, rather than the fact that salaries in New Zealand are unsatisfactory or not enough. In this case, it is difficult to indicate on which of the two sides of the continuum of dissatisfaction or no dissatisfaction the medical practitioners' arguments about salaries were based. This is because dissatisfaction in this case is not with salaries in New Zealand but in a context where salaries are compared with what fellow colleagues are paid in Australia. This shortfall in Herzberg's theory can be explained by yet another motivation theory: Adam's Equity theory. This theory (Adams, 1963) has special relevance to this topic. It states that feelings of equity/inequity stem from a

cognitive appraisal of one's outcomes (e.g., pay) relative to one's input (e.g., education, skills). This appraisal can also be made relative to one's comparison with others (e.g., co-workers). Employees appraise situations as either equitable or inequitable as long as they have seen such situations as their comparison. Relevant in this case is the fact that New Zealand medical practitioners appraise their work relative to one another, relative to other specialities, and relative to Australian medical practitioners. It can therefore be concluded that the existence of higher salaries in Australia acts as a pull factor.

In the qualitative responses, some participants expressed extreme feelings that salaries are higher in Australia while others thought that they are not higher. Those who thought that salaries were higher even claimed that they could 'treble' their salary by going to Australia and referred to New Zealand salaries as a 'joke'. Clearly these participants were not looking at New Zealand salaries in isolation from Australia. Thus, it is difficult to claim that in Herzberg's terms they participants were dissatisfied with salaries. It is rather more plausible to explain this in terms of Adam's equity theory.

It is noteworthy that in the findings of this study there were some participants who were neutral about the issue. These participants tended to be philosophical about the salaries. They stated that even though they were higher they are not a necessary reason to migrate. A closer look at this scenario, especially with reference to Appendix N, shows that some medical practitioners had left higher incomes in countries such as the US for lower salaries in New Zealand. In this regard, it is important to note that in the UK a 2011 staff survey indicated that medical practitioners and dentists remain more likely, than their colleagues in other NHS occupations in all services, to report that they are satisfied or very satisfied with their level of pay (57%) (NHS Employers, 2012). Even in this context, the UK is one of the major suppliers of IMGs to New Zealand. Therefore, this scenario is indeed consistent with Herzberg's claim that salaries are not a necessary reason for dissatisfaction.

It is also important to note that some medical practitioners referred to New Zealand salaries as reasonable and viewed going to Australia as 'mere greed'. These varying opinions add to the complexity of dealing with factors leading to the trans-Tasman migration phenomenon. The varying opinions may signify that these causes are interlinked with other factors and should not be analysed as isolated units.

In this regard it is noted that the actual data from salary guideline documents in New Zealand and in Australia shows that Australian salaries are indeed higher as can be

seen in Table 7 and Table 8. Probably the reason why some participants think that New Zealand salaries are reasonable could be because they have not investigated the issue in any depth, or they are comfortable with salaries as individuals. It could also be that salaries are not of such primary concern as other factors to such a group of participants.

The beliefs about higher salaries in Australia might also be a result of the regular newspaper articles (e.g., Collins, 2010; Johnston, 2011; The New Zealand Herald, 2012) that constantly fuel the beliefs about salary differences. Examples of this are Newspaper headlines such as “Oz offering NZ doctors \$6000 a weekend” (Davison, 2010). More examples of such seemingly exaggerated remarks are seen in Table 48.

Table 48  
*Media Headings about Exodus of Medical practitioners*

<b>Date</b>	<b>Source</b>	<b>Heading</b>
09-08-10	TV New Zealand	“Salary gap sends NZ doctors packing”
16-07-10	The New Zealand Herald	“Oz offering NZ doctors \$6000 a weekend”
30-12-12	Sunday Star Times	“Thank you and Goodbye”
08-12-11	The New Zealand Herald	“Goodbye New Zealand: Hello \$100,000”

It is therefore concluded that medical practitioners seem not dissatisfied with salaries in New Zealand; but rather that the salaries, when viewed in comparison with Australia, do raise equity issues. It may also be interpreted as a sign that there are factors other than salaries keeping medical practitioners in New Zealand. The fact that some participants still believe that salaries are not very important shows that employer stakeholders in New Zealand should take advantage of this scenario and improve other conditions. In terms of retention strategies, it is argued that the issue does not need to be tackled only by the medical practitioner employer groups but it should be a national issue incorporated into the government strategy. Currently, there is not sufficient evidence to substantiate that this is happening in New Zealand, although the political opinion from the ruling National party claimed to have done so. They claim to have done this through introducing a tax reduction for those who earn higher incomes, such as medical practitioners (Ryall, 2008). The relevancy of policy and political intervention was emphasised by Ravenstein (1885) when he argued that migrations are produced by oppressive laws (translated to be government policies in the modern era) and heavy taxation. Tax incentives, in the form of salary packaging, are one way in which Australia has diversified incomes for medical practitioners as a retention and attraction

strategy (Review Body on Doctors' and Dentists' Remuneration, 2012) as can be seen in appendix N.

### *Alternative remuneration packages.*

Like the question on higher salaries, as has been noted earlier on, the question related to remuneration packages was answered in extreme ways. A large majority of participants tended to choose the 'strongly agree' category. Scholars have suggested a complex set of alternative pay packages that could be monetary and non-monetary such as subsidised meals, clothing, accommodation, transport, and holiday provisions as central in attraction and retention of workers (O. Adams & Hicks, 2000; Buchan, Thompson, & O'May, 2000; NHS Employers, 2012). Indeed in migration theories, the macro-economic model (Massey et al., 1993) explains that individuals migrate not only because of differences in wages. Other contributors to the maximisation of income such as employment conditions and welfare benefits are also considered. Both Maslow and Herzberg made some references to ways of looking after employees. The earlier theorist conceptualising these in terms of biological and safety needs and the latter calling these working conditions.

By placing alternative pay packages in the class of biological needs and also in the class of safety needs, Maslow emphasised two points. Firstly, biological and safety needs are basic and necessary needs for existence. These may include housing, safe working conditions, clothing and job security. Secondly, Maslow emphasised that these provide a base for higher order needs such as social needs and self-actualisation to be met. Hence, addressing these needs can be the foundation for a motivated workforce. In addition to being viewed as remuneration packages, they also help employees to feel valued. As will be seen in the following sections in this chapter, feeling valued is another important factor in boosting the loyalty of employees and subsequently staff retention.

On the other hand, when analysing alternative pay packages in the framework of Herzberg's theory, these will fall under "work conditions" which therefore implies that these provide a condition of either "no dissatisfaction" (no push factors) when they are met or "dissatisfaction" (push factors) if not met. Anecdotal evidence from the Australian-based participants indicated that employers in some states of Australia already give remuneration packages including such incentives as vehicle loans, laptops and cell phone use. Utilising Herzberg's theory, it is therefore concluded that there

could be a condition of dissatisfaction (push factors) with remuneration in New Zealand in this instance and hence a reason for leaving.

### **10.2.2 Major theme: Working conditions.**

The major theme of working conditions includes issues about workload and what Herzberg termed ‘company policy’. Other issues related to working conditions, such as staff turnover, will also be discussed in this section.

#### ***Working conditions.***

In the qualitative questions of this study, participants were asked to comment on working conditions in New Zealand. They indicated a number of issues such as workload, morale and boredom. In addition, participants were also surveyed on factors known in the literature to be presenting challenges in the medical workforce in New Zealand such as turnover, ageing workforce, the trend in female participation, and the ageing population. A discussion of these in the framework of selected theories of motivation will follow.

#### ***Workload.***

Generally, participants expressed concern about the issue of workload. In terms of the Herzberg’s theory, this condition of dissatisfaction can be a push-factor. Maslow’s theory of the hierarchy of needs offers more insights, however, as working conditions are seen in the context of biological needs such as sleep, as well as safety and belonging needs, such as ability to have a balanced lifestyle. In Maslow’s terms, if these are satisfied, motivation will result. Indeed, in the literature it has also been argued that working conditions and job satisfaction can be improved by more effective clinical engagement, less paperwork, and improved hospital systems. This is central in workforce retention (Ministerial Review Group, 2009).

It is acknowledged here that there were other participants who specifically indicated that the workload is reasonable in New Zealand. In this instance, it is noted that Australian medical practitioners work on average 43.2 hours per week (Australian Institute of Health and Welfare, 2013) while in New Zealand SMOs work an average of 49 hours (Commission on Competitive and Sustainable Terms and Conditions of Employment for Senior Medical and Dental Officers Employed by DHBs, 2009). Among this group of participants who thought that the workload is reasonable, Herzberg would argue that although this is desirable, it cannot be a condition of satisfaction if fulfilled. Rather it

can be a condition of “no dissatisfaction” and the central question in this study will be whether this is enough for retention of the workforce. Indeed it can be seen as a factor in workforce retention because lack of dissatisfaction can be associated with lack of push factors.

The fact that the workload is reasonable was mainly noted among international medical graduates from developed countries such as the UK and the US as well as developing countries such as the Republic of South Africa. One might therefore argue that possibly the participants were only thinking in terms of comparison with their own countries, not in terms of comparison with Australia. This adds to the earlier argument that medical practitioners tended to make comparisons with Australia.

Issues that could be adding to workload strains in New Zealand include the trends in female participation in the workforce. The findings also revealed that other issues that affect working conditions included the changes in the age structure of both the population being served and the medical practitioners as well as the trends of female participation. For example, in terms of the trends in female participation in 2011, male medical practitioners worked an average of 45.9 hours per week, while female medical practitioners worked an average of 38.7 hours per week. Medical practitioners on extended leave or not employed and not looking for work in medicine were more likely to be women than men (Australian Institute of Health and Welfare, 2013).

In terms of the population median or average age changes, there are fears that both ageing of workers and of the population is going to add extra demands in terms of workload on medical practitioners. For example, it was reported that there are more older people in New Zealand than young people (Statistics New Zealand, 2007). On the other hand, the largest group of medical practitioners is currently said to be aged between 50 and 54 (Hill, 2012).

In New Zealand, incentives for additional workloads, such as locum work, do exist. These could be seen as a safety outlet where those who want to overwork are rewarded handsomely (Commission on the Resident Medical Officer Workforce, 2009). While there has been criticism (Ryall, 2008) that this is not sustainable, probably there are some medical practitioners who see it as part of the diverse working environment where one could choose how they want to balance work and lifestyle.

Another issue that emerged from the Commission on the Resident Medical Officer Workforce (2009) was that there are differential levels of workloads across specialities and across levels of seniority. These revelations also came out regularly in the in-depth interviews. This scenario can also be explained in terms of Adams' theory which states that employees strive for equity between themselves and other workers and equity is achieved when the ratio of employee outcomes over inputs is equal to other employee outcomes over inputs (Adams, 1965).

#### ***Company policy and working conditions.***

One of the strengths and modern applications of Herzberg's theory is his assertion that work policies are basic hygiene factors. By policies, Herzberg meant that company policies should be friendly and afford employees flexibility such as family-friendly employment environments. This can be in the form of accommodating families by assisting in the education of children and also offering employment to spouses. Indeed, family-factors, including children's educational opportunities, were some of the factors that participants mentioned as reasons for migration. Scholars have also argued in relation to policy issues, that the way the health system is organised can affect health workers' supply, retention, and performance (Hongoro & McParke, 2004). Moreover, Maslow's theory of the hierarchy of needs emphasised that our belonging needs are basic. This therefore means that if this is basic, the medical workforce may be affected by these conditions if they are not met.

Another aspect of policies is that of student loans repayment policies. Student loans can indeed be seen as basic hygiene factors as they can impede the efforts of workers to fulfil basic needs such as shelter and food. Although in New Zealand there are currently some scholarships, such as the voluntary bonding scheme, that are tailored to help medical practitioners repay their student loans, there is not much research into the effectiveness of these, except for political opinion (Ryall, 2008).

#### ***Other issues related to working conditions.***

One issue that is of special importance under work conditions is that of turnover. In the literature, much has been written about the fact that New Zealand tends to be a one of the biggest losers of medical practitioners in the developed world (Zurn & Dumont, 2008). Indeed, some medical practitioner representative organisations in New Zealand have expressed such concerns (Association of Salaried Medical Specialists Report, 2010). It is noted that in the UK, a country New Zealand is sometimes bench-marked

with, a 2011 staff survey found that when compared to their colleagues, medical practitioners and dentists are more satisfied with their pay, less likely to be planning to leave their employer, and are more satisfied with their jobs, healthier, and less stressed (NHS Employers, 2012). The most important part of this finding is that medical practitioners were not planning to leave and hence are probably satisfied with the general policies of their employer. It is however noted that this could have been a result of a myriad of factors and not just work conditions.

Another area where the issue of working conditions was raised by participants was that of technology and facilities. As has been noted earlier, Ravenstein (1885) offered some insights where he observed that migrants tend to migrate to areas which are more technologically advanced. Another way of assessing technological advancement in New Zealand is through specialist equipment such as used in cancer treatment. The new National government had this as one of its campaign strategies, signifying that it was an issue of national interest. There are reports (Murray et al., 2011) about targets that have not been met for surgical procedures, although it is noted that this is not entirely a technological issue but a human resource issue too.

### **10.2.3 Major theme: Management and collegial relationships.**

The major theme of management and collegial relationships will encompass issues related to authority and general relationship issues in the workplace and also in the general health system.

#### ***Management and relationship issues.***

On hygiene factors, Herzberg also stressed the importance of interpersonal relations and in the literature it has been said that the relationship of the employees with their peers, superiors and subordinates should be appropriate and acceptable (Lambrou et al., 2010). In the Australian participants' quantitative questionnaire it was generally noted that participants seemed to be agreeing that dissatisfaction with relationships is an issue that leads to the migration of medical practitioners from New Zealand to Australia. Indeed, issues about management also came out in two of New Zealand's most extensive review documents (Hunn et al., 2009) that utilised data on working conditions based on consultation with medical practitioners. Similarly, internationally in the Canadian context, it has been observed that one of the more insidious effects of relationship issues and lack of collegiality in the medical profession is poor morale and overwork. In this regard, it was once found that there appeared to be a growing tension in some medical

workplaces amongst physicians. The data from the 2007 National Physician Survey revealed that only 31% of non-primary care specialists were very satisfied with their relationship with family physicians and only 24% of family physicians were very satisfied with their relationship with other specialists (Gautam & Watkins, 2008) .

In terms of the relationship with management, one theory that could be used in conjunction with Herzberg's hygiene factors is that of Greenberg's (1987) conceptualisation of organisational justice. This theory states that to motivate people, leaders, in addition to being fair, must be accommodative of employees' views on decision-making such as in salary issues and on how resources must be distributed (G. P. Latham & Ernst, 2006). Indeed, in the interviews medical practitioners indicated that other sources of discontentment were because of arguments over use of equipment.

Further insights from Greenberg's (1987) conceptualisation of organisational justice offer some understandings around processes and systems representative of the thinking of the group as a whole and having these consistently applied across all workers (Bajwa et al., 2010; G. P. Latham & Ernst, 2006). Greenberg further stated that necessary steps need to be taken to ensure the feelings of procedural justice and interactive justice among the workforce. In the interviews, participants mentioned words such as "retribution" and "adversarial styles" in reference to what they felt about management (Greenberg, 1987; G. P. Latham & Ernst, 2006).

It is therefore argued that relationships seem to be an issue that needs to be resolved, as well as being an issue that can be used to boost job satisfaction. This issue could be exploited, as New Zealand is smaller and it does not have diverse jurisdictions like Australia. Thus, management systems may not be as complex. Another reason why this should be exploited is that relationship issues are not generally a matter that needs a country with a greater economic power. On the contrary, even a smaller country can capitalise on this.

The above discussion focused on the push factors leading to migration in terms of Herzberg's theory. In summary, Herzberg claimed that the presence of sufficient maintenance factors prevents discontentment among employees. On the other hand, the absence of good hygiene factors will lead to dissatisfaction and thus potentially retard any efforts to motivate employees. The next step is to discuss what Herzberg termed the motivation factors. These included advancement, recognition and achievement and although Herzberg separated them in his theory, in this discussion these will be grouped

according to how they relate to the major themes of this study. That means the use of these factors will be driven by the major themes of this study. It must be emphasised that the evidence from the findings seems to indicate that these motivation factors appear to be pull factors in Australia, as can be seen in the direction of the arrows in the conceptual diagram in Figure 73.

The following section will discuss issues of the study findings that are related to Herzberg's motivation factors. These come under the major theme of research, training and career aspirations and include what Herzberg called advancement and growth, responsibility, and recognition.

#### **10.2.4 Major theme: Research training and career aspirations.**

The major themes of research, training and career aspirations will discuss issues related to advancement and growth, achievement and the work itself, and responsibility and recognition. Although Herzberg tended to separate these, the discussion will combine some of these factors as is demanded by the context and reality of this study.

##### ***Advancement and growth.***

Herzberg also posited that advancement is a motivation factor. Advancement includes growth opportunities and in the case of this study, these could be accomplished through training, and research. Indeed, in the interviews participants mentioned the issue of comparable research opportunities, describing the New Zealand ones as "feeble". Internationally, it has been found that it is common for physicians, in particular, to move abroad for training and advancement purposes (Forcier, Simoens, & Giuffrida, 2004). Even in New Zealand itself, political opinions from media sources indicate that the government and policy makers, particularly the health workforce agency, seem to be supporting medical practitioners to migrate for the sake of training and experience. For example, the Health Workforce New Zealand (HWNZ) chairman Professor Des Gorman stated: "We want doctors to go. We want them to go overseas, get training, get experience and come home" (Hill, 2012, p. 1).

Having noticed in this study that CPD was mentioned as one of the major factors that seemed to have a convergence of results from the New Zealand participants and the Australian participants, a search of support systems for CPD in both New Zealand and Australia was carried out. The aim of the search was to ascertain the availability of support systems for medical practitioners in both countries and at speciality and junior

levels. The departments of health and related institutions in Australia and New Zealand as well as websites of regulatory and employee representative organisations in these countries were searched for training and development opportunities using the following words: ‘study’, ‘career’, ‘advancement’, ‘professional development’, ‘CPD’ or ‘opportunities’ in combination with the words ‘doctor’ ‘general practitioners’, ‘specialists’ ‘registrars’, or ‘interns’. It was seen that Australia had a diverse range of opportunities for medical practitioners to gain further knowledge, skills and career advancement. Even bearing in mind the size of the economy and the size of the population in Australia, it would appear that career development opportunities in Australia are more attractive and strategically designed for recruitment and retention of particular categories of medical practitioners, especially those working in ‘areas of need’. These initiatives target shortage areas, specific specialities, and medical practitioners (Department of Health and Ageing, 2012) .

Another point that could be noted about opportunities is that training opportunities are offered or facilitated by different stakeholders, including the national government, local governments and the colleges of medical practitioners. In this context, it is argued that research and professional advancement opportunity offers are a multi-stakeholder task to be tackled not only by employer organisations but by associations themselves and respective colleges. In New Zealand, the government stakeholders, city councils and local DHBs could commit to having a stake in this issue. It is also acknowledged that the New Zealand economy is comparably smaller so is arguably unable to handle research in the same way as Australia does. Nonetheless, New Zealand could take small steps such as supporting or deliberately creating pathways for professional advancement and research, or building these into the careers of medical practitioners. It must also be noted that another dimension of the issue is that in the in-depth interviews, it seemed that participants spoke about the issue of inadequate research. They referred to this in terms of the general attitudes of the management towards research; that research is undervalued. These attitudes are also an opportunity, as they could be changed without the need for financial investment.

In terms of opportunities for growth, participants also mentioned moving to a country with more colleagues in one’s field of interest and travelling to a country with more and varied medical jobs. If viewed from the perspective of Maslow’s theory, growth opportunities can be given to employees so that they can reach and fulfil their self-actualisation needs (Bajwa et al., 2010; Carroll & Dwyer, 1988; Sachau, 2007).

One way the New Zealand government is currently dealing with this issue is by offering scholarships and student exchange opportunities. However, the extent of the impact of this innovation has not been evaluated.

*Achievement, responsibility and the work itself.*

Other issues that were raised under this major theme related to achievement. In Herzberg's terms, achievement means successful completion of a job, finding solutions to problems and seeing the results of one's work (Sachau, 2007). In as far as the work itself is concerned, Herzberg referred to such issues as how the tasks are organised or how the employee goes about carrying out his or her job on a day to day basis. In this study, issues about achievement and the work itself were raised when medical practitioners spoke about regulatory restrictions and funding restrictions, as well as lack of autonomy in their work. It is however argued in this work that some of these issues related to achievement and how the work is organised seemed to be related to the practice of medicine itself. They were related to professional practice, rather than contextual factors such as government and DHB employer environments. Hence, given the similarities in regulatory environments between New Zealand and Australia, these issues might also be prevalent in Australia but overshadowed by other factors deemed positive by medical practitioners.

The window of opportunity that can be capitalised on is mainly related to how clinical supervisors and professional managers can facilitate situations where employees are given challenging jobs. These are scenarios in which the employees' skills and competencies are fully utilised. In this study, issues related to lack of achievement were also evident when medical practitioners spoke of management either getting their way or not giving them enough autonomy within their practice. Facilitating achievement is important as is evidenced in a study by Lambrou et al. (2010), which surveyed health workers in a public hospital. The study revealed that achievement was ranked as first among the four main motivators, which included remuneration, co-workers and job attributes. Moreover, as far as Maslow's theory is concerned, achievement is an aspect of his notion of esteem, while the work itself can be classed as being under the safety needs in the construct of order and structure. It is therefore argued that affording employees the opportunity for achievement and giving them the opportunity to structure their tasks is important as it creates possibilities for employees to be motivated towards the higher needs in the pyramid of this theory, as shown in Figure 71.

As far as responsibility is concerned (Byrne, 2006; Carroll & Dwyer, 1988), the term responsibility as used by Herzberg encompasses instances where an employee derives satisfaction from being given responsibility in their work. The issue of lack of responsibility came out in participants' interviews when they spoke about the "medical red tape" as being an issue. This appeared to be also an issue related to bureaucracy in management. Participants thought that it was hard to implement change whenever they wanted to do so. In a study among nurses that looked at the motivational factors that might improve the retention of nurses in the state of NSW, Australia found that nurses needed responsibilities such as being accountable, consulted or more involved in the process of ward or budget management, as opposed to being subject to administrative control (Carroll & Dwyer, 1988). Indeed, Lambrou et al. (2010) indicated that as part of the retention strategy in a health care setting, in addition to opportunities for promotion and job enrichment, delegation of authority is paramount in employee motivation. It is also argued that these issues (that are procedural rather than financial) could be easily changed and taken as small steps, building up to the strategies of retention, as they do not require much additional financial investment.

### ***Recognition.***

Lastly under the major theme of research, training and career aspirations, recognition is another factor that is important. In Herzberg's terms, recognition includes acknowledgement of an employee's effort and such sources of recognition may include the general public, management and collegial recognition in addition to general awards for achievements. Lambrou et al. (2010) once concluded that recognition of personnel efforts must be a part of the hospital human resource strategy. Recognition of employees can also be seen as either a way of acknowledging loyalty or as a way of creating loyalty. From the perspective of reflection, the writer found it interesting that in his assumption and in his literature review, there was nothing found about loyalty as a possible retention strategy for the trans-Tasman migration of medical practitioners. However, this appeared to be a regularly emerging theme in both open-ended and in-depth interviews.

Scholars have also argued that recognition of employees can result in commitment and commitment results in reduced turnover as it has a binding effect to an organisation. They identified constructs that lead to commitment to an organisation, including affective attachment to, and obligation to remain in, an organisation (Meyer, Becker, Vandenberghe, Klein, & Zedeck, 2004). Indeed in the open ended texts, participants

indicated that after benefiting from the student loans they felt obliged to stay in New Zealand. A look at a comparison of national schemes for recognising and rewarding excellency in performance among the competing English-speaking countries shows that only UK has such national schemes called the Clinical Excellence Award and the Distinction Award (Review Body on Doctors' and Dentists' Remuneration, 2012). Refer to Appendix N.

In terms of looking at recognition from the perspective of Maslow's hierarchy of needs, one may argue that the need for recognition may compel only highly motivated workers to migrate because recognition in approximate terms is in the higher order needs. The implication of this should, however, be taken cautiously as in New Zealand there is currently no study that has profiled the motivation levels of medical practitioners. This therefore forms a platform for recommending further research into the constructs of loyalty and commitment, as will be discussed later.

Recognition issues could also be employed as strategies of either retention or boosting medical workforce adequacy. Maintaining contact with medical practitioners who are overseas is another small step that could be taken. It was noted that the majority of participants in the Australian survey indicated that this would be a feasible strategy. Although the participants did not clearly spell out how this might be of help in encouraging the medical practitioners to return back, it is assumed that maintaining contact can be viewed by medical practitioners abroad as evidence that they are valued even though they have emigrated. It could also be a way of keeping updated with new developments in the New Zealand health system. These developments could address the reasons for why some of them left in the first place. However, there is no known documented strategy that has been implemented in terms of staying in contact with expatriated medical practitioners. Some efforts have been documented by a non-governmental organisation, KEA, which seeks to maintain contact with the general expatriate population of New Zealanders based in Australia. Such an effort could be mirrored in the case of medical practitioners.

One way by which medical practitioners could be made to feel valued is by exit interviews, as these show that employers care about their input. The Medical Council of New Zealand (Lumely, 2011) once did such a survey, although it is not known whether more such surveys will follow. In this study, when participants were asked if they will return to New Zealand, the majority of participants who had migrated to Australia

indicated that they have no intentions of returning. However, research that was carried out by the Medical Council of New Zealand (Lumely, 2011) indicated that the majority of medical practitioners who had recently left had intentions of returning. The results of this survey could have been influenced by two things. Firstly, it could be that the participants had recently moved and some retaining factors in Australia had not taken effect. Secondly, it could be that the views of participants were influenced by the fact that this study was done the Medical Council of New Zealand itself.

It is, nevertheless, argued that recruiting back strategies are could be one of the most feasible and practical ways of boosting the medical workforce if a concentrated effort is taken. The other positive thing about this strategy is that these medical practitioners would have gained some experience from Australia. Thus, there is a benefit of emigration for the New Zealand system.

#### ***The recognition factor and IMG initiatives.***

One problem that New Zealand has is that its IMGs tend to be mobile. One way of dealing with this issue could be for the medical workforce stakeholders to make them feel recognised or valued. As stated earlier, it has been observed that one of the potentials that New Zealand has is taking advantage of its 'high receiver' (Zurn & Dumont, 2008) status of IMGs. There were some participants in the in-depth interviews who indicated that there is a need to review IMG registration procedures and change general public attitudes that IMGs are unsafe. Given that New Zealand is seen as a country that has opportunities in terms of inflows of medical practitioners, one would think that possibly this country might have more comprehensive and friendlier registration policies. However, a review of literature (Mpofu & Hocking, 2013) indicates that the Australian registration system is more user friendly and more comprehensive than the New Zealand one, although the perception of Australian IMGs might be different. To this end, it can be argued that the registration processes in New Zealand may be having an impact on the supply of IMGs. Although it is hard to ascertain numbers, in New Zealand there are some IMGs, especially those who arrived as refugees, who are still doing menial jobs. The other issue is that there seems to be a lack of registration support initiatives for these IMGs (Mpofu & Hocking, 2013).

Diversity and alternatives that IMGs have for recognition are also another strategy of competing in a small way. While it has been argued that the New Zealand qualification recognition seems to be rigid, a review of documents (Department of Health and

Ageing, 2012; Department of Immigration and Citizenship, 2013b) indicates that there is diversity in IMG recognition in Australia. For example, the Australian Medical Council (AMC) has delegated accreditation of specialists to the specialists' colleges rather than requiring all to enter a process that is really more suitable for recent medical graduates. For instance, the Australian College of Rural and Remote Medicine (ACRRM) has begun the Workplace Based Assessment (WBA) for International Medical Graduates (IMGs) on the Standard Pathway in general practice, although at the time of writing this was still at the pilot stage. This programme is accredited as an alternative to the AMC Clinical Examination for IMGs wishing to gain general registration in Australia.

In addition to diverse recognition alternatives, the Australian system seems to have a number of support initiatives for IMGs wishing to get registered. These forms of support are either financially or training related, or immigration support. In 2007, a state-funded research project, 'Barriers of employment within Victoria' for international medical graduates commenced, seeking to address some of the issues faced by international medical graduates (IMG) and their recruiting health services. To this end, the state of Victoria has produced an up to AUD \$50,000 incentive package which is available to IMGs recruited to positions in high demand or areas of acute shortage. Indeed, all these are ways by which Australia is showing that IMGs are valued.

As noted earlier, the themes in this research should not be taken as static but rather as dynamic. This is because the motivational factors discussed are influenced by other intervening factors at any one point in time, as will be discussed below.

#### **10.2.5 Major theme: Intervening factors.**

The major theme of intervening factors included such factors that are related to personal and lifestyle issues as well as issues concerning the economic and the socio-political environment in New Zealand. Issues about proximity were also factors that were involved in decision-making. As has been discussed the intervening factors, added complexity to the push-pull factors in the sense that they made these to appear to be dynamic and not static. The following section will begin by discussing personal and lifestyle related issues.

### *Personal and lifestyle related issues.*

Participants mentioned several personal factors ranging from mere chance, desire to travel and climate issues. It is here argued that the Herzberg's theory fails to capture these in relation to migration. However, Maslow's theory helps to answer the question of how important these factors are in the hierarchy of motivators.

The first to be discussed are factors related to climate. The issue of climate was mainly noted among participants who are IMGs from Western and other countries with cold weather, especially in Europe. This can be classified under the basic needs of safety and physiological needs for warmth. Indeed, as has been seen in Chapter 3, the classical writings of Ravenstein also indicated that one of the laws of migration is that streams of migration are produced by "... an unattractive climate, [and] uncongenial social surroundings..." (Ravenstein, 1889). However, the shortcoming of Ravenstein's theory is that it did not clearly indicate which classes of workers prioritise climate in reasons of migration. In terms of climate as a reason for medical practitioner migration to Australia, another challenge is that Australia too offers these kinds of environments with beautiful weather and lifestyle (Hugo, 2008; Walmsley, Epps, & Duncan, 1998). However, it must be noted that the weather and lifestyle really varies widely in Australia. It could be more of a factor in New South Wales and Queensland. As for a workforce strategy, it is further argued that given this scenario New Zealand should compete at the international level and market warmer weather to medical practitioners from European countries. This may be more productive than marketing this in Australia which has even warmer and more varied weather (Green et al., 2008; Khoo, Hugo, & McDonald, 2011).

Other issues mentioned under personal factors included love of coastal areas and either small cities or large cosmopolitan cities. These can be classed as high order needs of fulfilling aspirations. Factors such as the desire to travel can be classed as higher order needs which are fulfilled only after the basic needs have been met. It is therefore argued that if these factors about lifestyle preferences are to be placed in higher order needs of self-actualisation, then the argument that these issues are pursued by the highly motivated segment of workers will follow. On the other hand, mere chance is difficult to classify under Maslow's hierarchy of needs. Although Maslow will put these preferences in terms of the hierarchy of needs, migration scholars such as Poot (1998) emphasised the role of what destinations of migration can offer to all individuals regardless of levels of motivation.

Other medical practitioners chose to move to Australia because of the love of what they perceive to be a relatively cosmopolitan lifestyle in larger cities. Probably one way of capitalising on this factor is incorporating personal preferences of lifestyle in employee interviews. For example, employees who prefer cosmopolitan lifestyles should be considered for vacancies in bigger cities such as Auckland. Although these may not be comparable to Australia, they could be offering better opportunities than rural areas.

Another personal issue mentioned is that of family (Benson & Dundis, 2003). For example, in the case of family Maslow's theory indicates that if viewed as a source of comfort and security, the family is basic in retention and attraction strategies. Moreover, if viewed as a source meeting for belonging needs, then the family is also important in retention of the highly motivated workforce (Benson & Dundis, 2003).

Issues about personal circumstances and flexibility in accommodating lifestyle can also be part of retention strategies. For example, although not a much documented issue, there was evidence from two participants in the in-depth interviews that they encountered hurdles when they left medical practice to travel and for maternity reasons. These medical practitioners who want to get back into medicine were also those who had taken leadership positions elsewhere but were wishing to return back into practice. Although they wanted to return back into medicine they could not. The reasons for this were either because there were no flexible policies that could help them back into medicine or there were not clear channels about procedures to follow in order to achieve their return back into practice.

Lastly, in terms of workforce strategies based on these factors; given the unique factors for migration ranging from mere chance, adventure, and lifestyle reasons the government can exploit these factors to create some forms of inertia among medical graduates so that they can always find some reasons to stay in New Zealand. As has been said, these need not only be in the form of bonding but in other creative means such as vehicle loans, which happen in some states of Australia. Secondly, although these reasons may appear to be minor, workforce planning stakeholders must consider the fact that these reasons have the potential to act as a fuel or trigger for other known reasons of migration such as salary and family factors, when the medical practitioners make decisions about whether to migrate.

Other reasons that were under the theme of intervening factors were those related to the economic and social environment in New Zealand. These will be discussed in relation to study findings and literature review.

### *Economic and socio-political issues.*

Participants stated issues that can be seen generally as economic and socio-political reasons for either staying or leaving New Zealand. In terms of conceptualising these with Herzberg's theory it can be said that although these factors do not directly influence migration they do have a bearing especially on hygiene factors such as company policies, working conditions and the salary. This is because working conditions and salaries are decided in the context of the prevailing economic and political environment. For example, in terms of politics since the National party government took office there has been a tight squeeze on the fiscal policies which in turn affected salary squeeze in government institutions (Ryall, 2008; Somer-Topcu, 2009).

#### **10.2.6 The economic landscape and government policies.**

The economic landscape in New Zealand has been changing in the past two decades with each successive government coming with policies that impact either positively or negatively on members of society in different income brackets (Vowles, 1995). Since the National<sup>7</sup> government came into power in 2008, it has introduced policies that can be considered bold by ordinary members of the society. Although these have been labelled rational on one side, they have been labelled insensitive to the lower paid residents of New Zealand. This has been evident in the fact that constituencies that are well off have largely been seen to be voting for this party while those that are worse off have not popularly supported this party (McDonald, Mendes, & Kim, 2007). This is relevant in discussion of trans-Tasman migration as it has even been claimed that since the National Party came into power the migration of low paid workers has been high while the highly paid workers, such as medical practitioners, has reduced (Collins, 2010; Wade, 2011b).

Tax cuts, particularly reduction in the top tax rate, and extension of tax brackets as can be seen in Table 49 were another reform of the national government. One thing that can be seen from this table, comparing taxation in Australia and New Zealand, is that in the

---

<sup>7</sup> The ruling party in New Zealand is called the National Party.

two lower tax brackets, New Zealand seems to be unattractive while Australia offers better taxation on the same level.

Table 49  
*Comparison of the New Zealand and the Australian Tax Brackets*

<b>New Zealand</b>		<b>Australia</b>	
Income tax rates for individuals from 1 April 2012 to 31 March 2013		Income tax rates for 2011–12 (starting from 1 July 2011)	
Taxable income (\$NZ)	Tax rate	Taxable income (\$A)	Tax rate
Up to \$14,000	10.5%	\$0-\$6,000	0%
\$14,001 to \$48,000	17.5%	\$6,001-\$37,000	15%
\$48,001 to \$70,000	30.0%	\$37,001-\$80,000	30%
\$70,001 and over	33.0%	\$80,001-\$180,000	37%
		\$180,001 and over	45%

*Note.* Source: Inland Revenue Department (2012) and Australian Tax Office (2011).

The highest tax brackets in New Zealand are taxed lower than they will be in Australia. However, even though in Australia the highest tax brackets may appear to be taxed more, the effects of such a tax may not be felt because of salary packaging as has already been discussed earlier.

Further examples that show that the National Party policies deserve to be popular among the highly paid and not necessarily among the lowly paid workers include the reduced role of the state (Inland Revenue Department, 2012; McDonald et al., 2007). The reduced role of the state has also resulted in reduced real spending on social services and also asset sales; thereby possibly reducing optimism in social classes that benefit most from state services. On the other hand, a few policies that might have affected professional classes too include cuts in support for a savings scheme called Kiwisaver and the Superannuation Fund (A Young, 2013); and most relevant to medical practitioners, cuts in support for research and investment (C. Adams, 2013; Armstrong, 2013; Fookes, 2009; Statistics New Zealand, 2010c).

New Zealand and Australia also compete on what these two countries can offer in terms of basic living wages, living standards, cost of living and social services. In this regard the competition has been noted to be favouring Australia, mainly in the areas of taxation and subsidies for social services (Drago, Pirretti, & Scutella, 2007; New Zealand Herald, 2011b). In terms of wages the Economic Development Indicators 2007 report

found the average weekly earnings of fulltime workers in Australia (in NZ dollars) ranged from \$1025 in Tasmania to \$1248 in Western Australia, compared to New Zealand's average of \$906 (Statistics New Zealand et al., 2007). Australia seems to be attractive too in the area of such social services as medical subsidies, early education, and no interest student loans. Currently in New Zealand, social services benefits are on the wane as the government is overtly on a policy of issuing spending caps (A Young, 2013).

The last item about socio-political issues to be discussed is that of peace and crime. It has been noted that quality of life issues relating to not only the economy but crime too are strong motivating factors for medical practitioners to seek relocation and an example given is that of medical practitioners coming to New Zealand from South Africa (Henning et al., 2009). Traditionally, these issues have even been important among medical practitioners migrating from post-conflict East European countries and currently the Persian sub-continent (Mpofu & Hocking, 2013). Issues of peace and stability were raised in both the Australian and the New Zealand participant in-depth interviews and open text responses. Generally, participants saw New Zealand as a peaceful country; however it is in the unfortunate situation of being compared with Australia in terms of general resource availability and allocations. Indeed as far as peace and political stability are concerned, even by world standards New Zealand has in most cases been rated in either the top ten or the top 20 countries in the world (New Zealand Herald, 2011a). However, it must be noted that Australia too has been rated highly. For example, two of Australia's cities have in successive years made it to either the top 20 or the top 30 categories of best cities in which to live in the world (Wade, 2011a).

#### **10.2.7 Proximity and systemic similarities.**

While motivation theories have provided some insights into the issues faced by medical practitioners, it is however argued that there are some which could not be clearly explained by these theories. These areas included proximity and systemic similarities.

Along the same lines, migration scholars such as Connell (2010) and Kingma (2006) have alluded to the importance of proximity and language similarities in migration. This thinking can be explained by the gravity model of migration. This model explains migration in two ways. Firstly, it assumes that migrations tend to take place over short distances, and that the number of migrants decrease as the distance over which they migrate increases. Thus the distance travelled is inversely proportional to the volume of

migration; that is, the distance-decay effect. The second assumption of this theory is that the population size of two places is important; and larger places attract people and ideas more than smaller places. This theory indeed can explain the fact that most of New Zealand's medical practitioners are lost to Australia more than any other competing English-speaking country. This theory can also explain why, in terms of distance, the 2006 Australian census indicated that the general population of New Zealanders tends to be concentrated in the states of NSW (38.2%), Victoria (27.4%) and Queensland (16.4%); rather than in South Australia (12.2%), Western Australia (2.9%), or the Northern Territory (0.8%) (Department of Immigration and Citizenship, 2013a). It is important to mention that the movement of medical practitioners also seems to mirror the general population trends in terms of spread around Australian states as can be seen in Table 3.

In addition to such classic migration theories as the gravity model, recent scholars like Poot (2009) have even proposed a hypothesis that the trans-Tasman migration should be viewed as regional rather than international. He wrote:

Given that trans-Tasman migration is free movement between very similar countries among very similar people it is reasonable to ask to what extent this migration is any different from migration from Sydney to Perth or indeed from Invercargill to Auckland. (p.13)

Further examples about influence of proximity include the fact that some trans-Tasman distances tend to be less than distances than can be travelled between Australian cities. For example, the distance from Sydney to Auckland is 2200 km while the distance from Sydney to Perth is 3200 km (Poot, 2009). Indeed, even migration theorists such as Sjaastad (1962) and Todaro (1969) have argued in micro-economic models of individual choice, the importance of the element of seeing individuals as rational actors who calculate not only income-related benefits but also maintenance costs such as cost of moving, efforts involved in looking for a job, learning a new language, adapting to culture shock, adaptation to new jobs and the psychological costs of being away from home (Massey et al., 1993).

Along similar lines and specifically about the trans-Tasman movements, current scholarship indicates that the trans-Tasman population flows respond to the same set of factors that determine relative opportunities in origin and destination within Australia. It has, however, been argued that the responsiveness of migrants to potential gains from

migration is somewhat less in the case of migration involving a border crossing as compared with the case of internal migration (Poot, 1995, 2009).

*Significance of intervening factors to workforce planning.*

Having discussed the economic, social and political stability as well as proximity factors, it is important to relate these to the implications for workforce planning and Maslow's theory as these can offer insights. What can be gained from Maslow's theory, is that economic, social and political stability is of paramount importance to medical practitioners and in workforce planning strategy. For example, Maslow would classify these under safety needs (i.e., economic, social and political security). If this argument is taken, this would mean that indeed these should be of priority consideration to policy planners as they are in the category of basic needs. If these are not fulfilled, then higher order needs such as esteem and self-actualisation will not be achieved. In terms of opportunities for competing with other countries by marketing New Zealand as a peaceful country, it is argued that this is one opportunity that New Zealand should capitalise on. However, given that Australia too is similarly an economically and politically stable country it means competing with Australia may not always be feasible. An ideal situation is to capitalise on this opportunity in terms of competing not with Australia, but in terms of competing at world level. This would mean strategic marketing of New Zealand as a peaceful country for international medical graduates rather than emphasising monetary gains.

Moreover, discussion on intervening factors supports the argument that New Zealand is in a competitive environment. In addition, given the size of the New Zealand economy in comparison with Australia and other competing English-speaking and OECD countries, it will not be feasible for New Zealand to compete in economic terms. The strategy adopted in this study is therefore that New Zealand should compete within the means of a small population. Even in the open ended interviews, participants argued that it would be naive for New Zealand to find itself competing with bigger economies for salaries.

As has been noted in Chapter 3, one of the suggested ways by which New Zealand could compete as a smaller nation is by being creative and innovative in workforce strategies. Such creative strategies include role extension of existing professional groups. Other measures include targeting specific shortage areas; for example rural areas. Although such measures as the Rural Origin Medical Preferential Entry

(ROMPE) and the Rural Medical Immersion Programme (RMIP) exist in New Zealand, more effort and emphasis along the same lines is needed given the losses this country is incurring and given its position of being in a competitive environment internationally and regionally. This is more so considering evidence that the equivalent South Australian Flinders Medical School's Parallel Rural Community Curriculum has not only been sustainable for more than a decade but has produced positive outcomes (Walters, Worley, Prideaux, & Lange, 2008; Worley & Walters, 2007).

Other innovative strategies that fall in the rubric of competing on a smaller scale include recruiting back strategies. In interviews, participants spoke of knowing fellow medical practitioners not practising. Although figures in New Zealand are not readily available, insights from Australia suggest that there could be medical practitioners not working. For example, in 2011 there were 8957 medical practitioners not actively employed in medicine in Australia. Of these, almost a third were overseas (30.5%); 28.4% were on extended leave; and 26% were retired from regular work. A further 12.3% were not looking for work in medicine, with about seven in 10 of these (69.6%) not employed. The remaining 2.8% were said to be not looking for work in medicine (Australian Institute of Health and Welfare, 2013). Though not large numbers, these are however minor steps that could be taken to boost the New Zealand workforce.

### **10.2.8 Overview of the discussion of major themes.**

The motivation theories offer insights about tackling the issue proactively by focusing on basic and maintenance needs for employees and also on factors that may help them to reach their potential. Moreover, according to Carroll and Dwyer (1988), another insight gained from motivation theories, especially Herzberg's theory, is that discussion of the issues from this perspective indicates that strategies to resolve the crisis must proceed on two fronts. Workforce planners and employers must promote medical practitioners' job satisfaction and at the same time reduce the incidence of factors promoting job dissatisfaction. The weaknesses of motivation theories, especially the focus on personal and workplace factors with little or no emphasis on a global outlook such as the inter-territorial push and pull forces, were covered by utilising other migration theories such as the gravity model. It is also here emphasised that there were two major issues that are found in literature which were however not captured in the study interview and survey findings. These were issues of globalisation and the related ethics of medical migration. These issues were extensively discussed in Chapter 4 and will be incorporated in the theoretical framework. In a sense it is argued here that the

issue of ethics might have indirectly arisen in the interviews when medical practitioners mentioned that loyalty and having a sense of duty keeps them in New Zealand. However, broader ethical issues related to interstate brain drain and poaching as discussed in Chapter 4 did not come out in the themes.

### 10.2.9 A proposed framework for understanding the trans-Tasman migration.

This work has also utilised migration theories and motivation theories to conceptualise the findings from the literature review and also the findings of the interviews and the survey. It is therefore timely to propose a conceptual framework for understanding this issue. This answers research question number four of the study which is:

- What is a possible conceptual framework for representing the factors and ways of managing the New Zealand medical practitioners' decisions to migrate across the Tasman to Australia?

In light of the findings of this study, the writer would therefore recommend perspectives that look at such contextual territorial factors and inter-territorial factors as well as workplace settings, and individual circumstances and aspirations. This has given rise to a concept diagram of the trans-Tasman migration presented in Figure 73 where the dotted background indicate a dense context in which other factors are embedded.

Moreover, instead of being viewed as being disjointed or presented in a series, the trans-Tasman migration of medical practitioners is seen as influenced by intervening factors and embedded contextual factors. These factors are not static as decisions made depend on contextual factors and intervening factors, as can be seen in Figure 73.

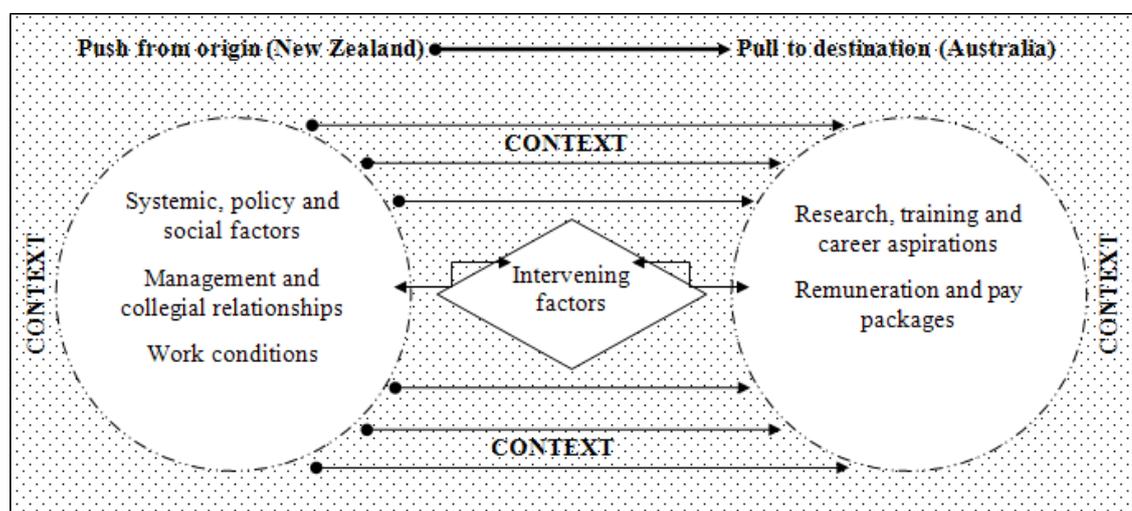


Figure 73. A model of medical practitioner migration from New Zealand to Australia.

This diagram is based on Lee's (1966) push-pull factor migration model. Lee conceptualised migration as a product of push factors in places of origin, pull factors in destinations and intervening obstacles which are personal decision-making strategies. In this case, it is argued that push factors are systemic, policy and social factors, work conditions and management and collegial relationships; while pull factors are research, training and career aspirations and remuneration and alternative pay packages. The personal, family and lifestyle factors are seen as intervening factors. Forces of globalisation cannot be ignored and it is therefore important to emphasise that they are taken as part of intervening factors and also as part of the context. Issues about proximity and similarities between New Zealand and Australia as well as ethical issues discussed in Chapter 4 are also included in the category of intervening factors.

This diagram does not only paint a comprehensive picture but it is also a stance that honours the holistic nature of the case study methodology that seeks to understand phenomena as a whole in its situated context. This representation also fits the general rather than a one sided migration framework as it encompasses individual and contextual factors as well as acknowledging the socio-political relations, geographical links between Australia and New Zealand, as well as forces of globalisation. The conceptual diagram also acknowledges complexity and the dynamic nature of migration factors depending on context. Such a stance lays a foundation for interventions that are dynamic and context dependent too. In the light of what has been discussed above, such intervention strategies are discussed in the next section.

### **10.3 Conclusion**

Although factors that lead to migration have been identified, it is clear that medical practitioners seemed to have varied opinions about these issues. The role of intervening factors such as lifestyle preferences and personal circumstances also indicates the complexity of the interrelationship of factors. These intervening factors may be a sign that, whatever reasons given for migration by medical practitioners, they should not be classed as minor but seen as part of the complex picture of triggers of migration. Intervening factors also show that there is an issue of complexity in the trans-Tasman medical migration. Apart from the reasons usually presumed to be the trigger of migration, participants indicated reasons for migration that were unique or personal to them, adding to the complex matrix of migration. This adds to the conclusion that medical practitioner migration should not be viewed as a phenomenon resulting from unitary factors in a cause and effect fashion, but rather its complex nature should be

acknowledged and factored into decision-making in workforce planning. Moreover, given the discussion above, it follows that strategies that could be useful in New Zealand are those based on a two-pronged model. These two fronts are 1) appealing to motivation factors and 2) being proactive on strategies that are based on the principle of competing internationally within the means of resources of a small country. It is also argued that workforce retention efforts are a multi-stakeholder task to be tackled not only by employer organisations but by medical associations themselves and respective colleges.

# Chapter 11: Summary, Conclusion and Recommendations

## Introduction

In order to understand the position at the conclusion to this work it is important to understand the origins. A brief summary is therefore given of the work covered in the preceding chapters.

### 11.1 Summary

The background discussion in Chapter 1 shows that there is a longstanding relationship between Australia and New Zealand. Migration patterns between New Zealand and Australia keep changing and currently the flows in migration seem to favour Australia. This is a concern for New Zealand as the trends in medical practitioner losses seem to mirror this pattern.

It has also been shown in Chapter 2 that some strategies for boosting the medical workforce that have been employed by some countries internationally have not yet been adopted in New Zealand. If compared with other developed English-speaking countries, New Zealand seems to be less active in its workforce planning strategy. It is also shown that New Zealand must maintain a high quality medical workforce, and that this competitive context, has long and deep roots, noting this situation is unlikely to end soon. The evaluation of ethics and migration frameworks presented in Chapter 4 and 5 shows that global competition is inevitable. The conclusion therefore is that New Zealand is in a competitive context and, as has been said earlier, it appears to be less active than other countries in this competition scenario.

While the issue of medical practitioner migration from New Zealand to Australia is similar to other scenarios of medical migration, it is here seen as presenting some characteristics that are unique too and therefore a case study methodology is defended in Chapter 6. Following the defence and description of the methodology, both challenges and opportunities that New Zealand can capitalise on were noted in the results Chapters 7, 8, 9 and 10. These chapters highlighted some opportunities that seem minor but could be taken as small steps in the form of strategies for achieving medical workforce adequacy.

The presentation of qualitative results in Chapters 6 and 7 shows that participants have consistent views about the fact that the New Zealand's economy and size do not allow it

to compete with the wide and varied economy of Australia. The views about salary, working conditions and other systemic and contextual issues were varied too. However, participants were consistent in agreeing that these are causes of migration as well as agreeing on the strategies for meeting workforce shortages. The quantitative results in Chapters 8 and 9 served to gauge the level of agreement with factors that necessitate migration by frequencies and percentages.

After consideration of all the findings of the research, it is argued in Chapter 10 that the challenges in the New Zealand medical workforce can be conceptualised using the motivation theories. This chapter also argues that, while migration and motivation theories do offer insights into understanding the trans-Tasman migration of medical practitioners, when viewed individually these theories will always leave gaps in explaining this phenomenon. An argument was made that the factors for migration identified in this research can be represented in a comprehensive model that takes into consideration individual and contextual factors in both origin and destination countries; a model similar to Lee's push-pull factor theory.

## **11.2 Pre-Study Assumptions Revisited**

Initially the researcher had hypothesised that the major trigger of migration of medical practitioners to Australia is higher salaries. However, the findings of this study reveal that there are other factors too. Although some participants agreed or indicated that salary is the main factor, other participants argued that while they are aware that salaries are higher in Australia, this may not be a necessary factor for migration.

## **11.3 Revisiting the Objectives of the Study**

The purpose of this study was to find out the reasons why medical practitioners migrate from New Zealand to Australia and suggest strategies for dealing with the issue. This purpose was to be achieved by a critical review of relevant background literature, theories and concepts as well as by conducting a survey of medical practitioner and workforce experts' opinions. Literature was reviewed to find out the dominant characteristics of this migration phenomenon. Such literature indicated that the migration direction seems to be in favour of Australia and that Australia seems to be putting New Zealand in an environment of stiff competition. The theories reviewed indicated that there are some aspects of this migration issue that could be explained by traditional and modern theories and models of migration. At the same time there are some aspects that are unique to the trans-Tasman scenario.

In terms of examining the shape and the nature of the Trans-Tasman migration, ethical theoretical frameworks indicated that although scholarship on ethical issues usually focuses on movements from developing countries to developed countries, there are ethical issues that are related to migration flows from one developed country to another. Therefore, referring to Rawlsian and Kantian ethics is recommended to guide ethical thinking in dealing with this issue. In order to find out the causes of migration, a case study methodology was adopted and both quantitative and qualitative methods were used. The qualitative methods showed that the reasons for migration are related to remuneration and pay packages; research and career aspirations; relationships; and contextual issues; and these are all facilitated by other intervening factors. The quantitative results showed that remuneration and pay packages; research, training and career aspirations; and personal and lifestyle factors were the most cited reasons for migration.

These reasons were conceptualised using motivation theories and migration models. It was seen that the motivation theories helped in mapping these reasons in terms of importance. A model of migration that was suggested as a conceptual tool to understand these reasons is that of Lee's push-pull factor theory (Lee, 1966). In this regard it was found that there are push factors in New Zealand related mainly to the basic needs of employees. On the other hand, it was seen that Australia seemed to hold hopes and opportunities for medical practitioners who wanted to fulfil their aspiration-related needs. It was therefore seen that this research has implications for government action, workforce planning, medical education and employment conditions of medical practitioners in New Zealand. The overarching theme of the recommendations is that New Zealand should compete in a small way relative to its economy and population size. It was also recommended that action must be taken in terms of robust workforce planning strategies, investing in retention of IMGs, making migration friendly and student loan friendly policies as well as focusing on strategies that can boost loyalty and inertia among medical practitioners. Finally, it is argued here that workforce planning efforts are a multi-stakeholder task to be tackled not only by employer organisations but also by medical associations themselves and the respective colleges, as well as being represented by union advocacy. Such retention efforts should not be left to employers alone but should include government and all possible workforce stakeholders such as medical colleges, the regulatory bodies, medical practitioner representative

organisations, the immigration department, the Health Ministry and employer organisations such as DHBs.

#### **11.4 Implications**

This study has implications for workforce planning mainly because it has shown that the world is characterised by increasing internationalisation, from which the medical workforce is not immune. Workforce planners in New Zealand should realise that in addition to looking at the issue at the Trans-Tasman level, understanding the medical workforce market in terms of globalisation. This approach is useful as it cautions workforce stakeholders that planning issues are not just a matter of internal affairs to be addressed within countries but subject to world market forces. Hence, this raises the importance of understanding workforce dynamics in a globalisation context.

This research also has implications for medical education, local employers of medical practitioners such as DHBs in New Zealand and the government. Medical educators must invest in designing the medical education curriculum that will contribute to medical practitioner retention. Medical educators also have a social responsibility to contribute to medical workforce adequacy through initiatives that result in retention and adequacy of the workforce. These include being proactive in lobbying as well as convincing the government about policies that could contribute to retention. Local employers such as DHBs are challenged to tailor their working conditions to suit the changing needs of the medical practitioners. The government is challenged to prioritise investing in a range of strategies aimed at achieving medical workforce adequacy.

#### **11.5 Areas for Future Research**

In terms of knowledge advancement, this study adds further to the knowledge that causes of medical practitioner migration across the Tasman are more complex than perceived in the social spheres. Although limited to a specific population and hence the results are not able to be generalised, the study has provided an in-depth knowledge and understanding of the causes of the trans-Tasman migration of medical practitioners. The identification of factors that lead to migration will enable researchers to conduct more in depth studies that would validate the veracity of the outcomes from this study. These outcomes would serve as possible tenets for researchers and workforce planners; and acknowledge that the issue seems to be on-going and action needs to be taken. Other areas identified for advancing knowledge include:

- Research that could utilise the outcomes of the themes of this study to devise a quantitative questionnaire and attempt to access a wider population group
- Research that may compare how the reasons for migration of medical practitioners differ from those of other professional groups
- Studies focusing on establishing the hierarchy of importance of factors that necessitate migration
- A purely comparative quantitative study that will research the views of a large pool of medical practitioners in New Zealand compared with medical practitioners who have migrated to Australia. Given the hurdles and time constraints in soliciting data from individual organisations, such a study might have to rely on data from authorities such as immigration and the registration authorities to provide a comprehensive profile of medical practitioners.
- Research comparing the views of multiple stakeholders such as medical students, medical educators, policy planners and the medical practitioners themselves on causes of medical migration and strategies of dealing with the issue
- Longitudinal studies on students' career progression after graduation
- Work on establishing how loyalty develops and is maintained, since most of this work suggested boosting loyalty as a further retention strategy.

## **11.6 Recommendations**

Recommendations made in this research are in two broad categories which are; radical and transformational strategies and the other ones are in the category of small incremental steps for action. The recommendations in the radical and transformational category include regional / coalition strategies. On the other hand, the recommendations in the incremental small steps for action category are in the areas of workforce planning action, government or policy action, medical education, migration friendly policies, boosting loyalty, creating inertia and competing internationally in a sustainable way.

### ***Radical and transformational approaches with an international focus.***

Until bold moves to address the trans-Tasman migration are taken, New Zealand may continue to suffer the negative consequences of the trans-Tasman medical practitioner migration. The need for a bolder vision to drive this work may require a willingness to take actions that are not conventional. These measures include regional and coalition strategies in medical education, recruitment and placement of graduates. Such strategies are informed by the thinking that migration issues are best addressed through clear policies with a nationally, regional, or international focus.

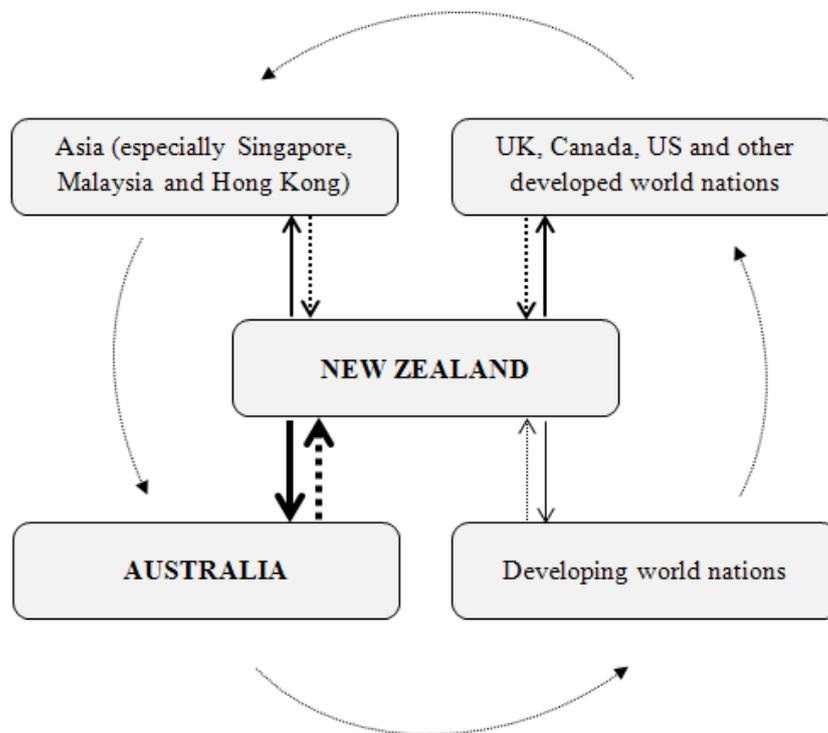
### ***Medical education strategies.***

The regional approaches could be informed by the need to motivate employees by recognising their needs and making them feel acknowledged as claimed in Maslow's theory (Benson & Dundis, 2003; Maslow, 1954). One of the regional approaches is that of offering attractive deals to New Zealand students graduating from Australian medical schools, or at least developing a clear pathway for them to return. Canada is now doing something like this because they have realised that about 1000 Canadians study medicine abroad and that these graduates are a 'preferred' option to IMGs from other source countries (Canadian Resident Matching Service, 2010).

Moreover another justifications of offering international experience or post-graduate pathway strategies is that, as has been argued earlier on medical practitioners need to travel to gain experience and post-graduate education in countries they select for various reasons. It is therefore strategic to think about supporting them to pursue such wishes in return for bonded practice back in New Zealand and, indirectly, as a strategy to boost loyalty. There could be a potential for attracting these graduates back as New Zealand already has opportunities that attract IMGs from other countries.

The third justification for this thinking is the geographical location of these two countries which are a long way from Europe and North America, and perhaps not so far from the Asian countries which the Medical Council of New Zealand recognise as having an equivalent health system such as Singapore and Hong Kong. Figure 74 shows ideal post-graduate pathways movements into these countries and back to New Zealand. In other words this means viewing Australia and New Zealand as two different sub-contexts within a regional context in terms of requirements for the medical workforce. Both these two countries have opportunities in terms of attracting lifestyle migrants and they also face similar challenges, such as the ageing population and reliance on IMGs.

Figure 74 also shows the possible routes that medical practitioners could be taking in the regional and global postgraduate and international experience ventures.



*Note. 1.* Broken lines show that pragmatically not all medical practitioners may return.  
*Figure 74.* A conceptual framework for international initiatives

In the diagram the bigger arrows between Australia and New Zealand indicates that the first preference will be to allocate more places for international experience to Australia, followed by equal proportions of places allocated to preferred Asian countries and UK, Canada, US and other developed nations. The smallest proportions will be allocated to developing nations as most of them have post-graduate experience that is deemed not equivalent to that attained in other countries with health systems deemed comparable to New Zealand by the Medical Council of New Zealand (Medical Council of New Zealand, 2010). The thinner outer circles indicate that there could be few medical graduates who may choose to still pursue international experience further than the countries initially allocated.

#### ***Other Medical education strategies.***

Other medical education strategies are those that have a focus on redesigning the curriculum and recruitment strategies. New Zealand should strengthen initiatives in graduate recruitment that target students with particular demographic characteristics such as those from rural areas. Such actions should be preceded by research to ensure

that actions are evidence-based. The medical curriculum should be tailored to boost loyalty and relevant ethical reasoning on the part of the individual medical practitioner. Career aspirations of medical students should be part of a bigger picture that informs decisions about the medical education curriculum. Strategies such as deploying or providing rotations for medical practitioners in places where they have interests should also be considered.

*Coalition strategies linked to medical education and employment.*

It is suggested that Australia and New Zealand should consider having joint policies on health workforce or specifically medical workforce. Although it may sound ambitious and bold it might be worth floating as an idea. The courage to take such a move can be derived from the fact that New Zealand and Australia have already strengthened regulatory harmonisation as well as several other economic and social policies (Poot, 2009). This therefore is a platform that justifies the possibility of a single recruitment agency to be created. Specifically, this view of Australia and New Zealand as coalition partners might extend to agreeing on a regionalised borderless charter for medical practitioners where placements and medical schools and colleges are jointly funded. Moreover these two countries can create one employment region in such a way that medical practitioners graduating in either of these two countries can choose where they want to be deployed after graduating. This strategy will improve diversity of the areas where medical practitioners choose to work in a similar way the harmonisation of registration across the states of Australia worked.

Such an agency will harmonise not only deployment but remuneration and professional development opportunities. This will, in one way address the pay gaps between Australia and New Zealand and hence better position the two countries to compete with other developed world countries in the global market for medical practitioners.

Collaboration, as described above, may drive the two countries to a new level of integration so as to better position both economies to meet the challenges and opportunities of globalised and regionalised migration. Time has come for the two governments to realise that workforce issues in the context of trans-Tasman migration cannot be addressed by nations acting individually.

### *Other actions deliberately targeting Australia and globally.*

It is acknowledged that in the general population visitor migration from Australia to New Zealand seems to be in large numbers and yet specific population groups such as medical practitioners immigrate more permanently in very small numbers. It is therefore recommended that New Zealand should develop specific actions aimed at reversing the trend with regard to medical practitioners. These actions need to be taken in an ethically appropriate way and in a manner that will not trigger counteraction from the Australian counterpart. These strategies may include offering return of service scholarships for New Zealand citizens studying medicine in Australian medical schools.

In this context of globalisation, one would expect that New Zealand would position itself as a ready global competitor. This position does not necessarily mean recruitment from developing countries but making itself an option, given the fluidity of the medical workforce in moving from one country to another. It also does not necessarily mean direct recruitment but marketing the country as an alternative to the medical workforce which may be already mobile. Hence, there is a need to prioritise action on new and unique innovation strategies that will make New Zealand stand out in competition with other OECD and competing English-speaking countries in a way that is realistic and sustainable.

#### **11.6.1 Small and incremental steps for action**

Given the need to be pragmatic and the need for the sustainability of reforms, it is suggested here that in addition to radical and transformational strategies other actions for achieving workforce adequacy and dealing with the trans-Tasman migration should be considered. These should be based on the principle of taking steps that are small and sustainable and incremental in nature. Such actions or reforms need not involve costly or radical overhaul for two reasons. Firstly, as has been said, the economy of New Zealand is too small to compete with other English-speaking developed world countries and hence the recommended actions should not be costly. Secondly, an overhaul is not needed, as it has been seen that New Zealand already has an immigration opportunity on which to capitalise.

In terms of small and sustainable steps to be taken, New Zealand could make overt decisions regarding other non-monetary awards that will not make demands on the budget such as relational issues and recognition through allowing medical practitioners to have more input into decision-making processes. Such employee conditions need not

be a neglected policy; small but significant changes could save the government and employers in terms of losses of medical practitioners to Australia. A broader incorporation of flexible employee-friendly conditions into contracts design and planning could save millions more.

### ***Unique and competitive retention strategies targeting IMGs.***

Undoubtedly New Zealand is a high receiver of medical immigrants compared to other OECD countries. Additionally, New Zealand IMGs tend to be highly mobile in terms of emigration. Certainly, if New Zealand is a high receiver this might signify that there is something that attracts medical practitioners. This should be capitalised on by strategies that could be taken at both employment level and at a national level to understand the needs of immigrants and what motivates them to stay. There should be clear programmes that are unique and internationally competitive to support newly arrived IMGs. New Zealand has competed and won IMGs. For example, some come to settle here for peace while others come for the environment and lifestyle related factors.

### ***Government action.***

Given that there is a large investment that has already been put into educating medical practitioners, there should be a corresponding investment in retention. The government and especially its treasury arm has a large stake in this dimension which involves calculation of investments, and savings that will arise from such an investment in the long term. This is recommended for government action because political parties tend to have different ideologies with regards to spending and investment. A recommendation is also made for the Treasury in terms of taxation and student loan initiatives. Generous student loan initiatives are recommended as one of the bottom-up strategies that may promote retention.

### ***Complex and multi-stakeholder approaches***

As has been acknowledged, the New Zealand workforce planning scenario is complex and therefore requires corresponding approach characterised by complexity and a broad base of stakeholders. This means that the task of retaining and recruiting the workforce should not be left to employer organisations alone but should be a shared responsibility in the country. For example professional associations, regulatory bodies, medical colleges, DHBs and local governments should have a stake in recruiting and retaining the medical workforce. Regulatory bodies and medical colleges can without compromising safety standards; design policies and registration procedures that are not

perceived as complex and unfriendly particularly by IMGs. Large and small cities and regional councils can contribute by designing policies and strategies that market their uniqueness and hence choices for workers to settle. DHB and PHO managements should take advantage of the decentralised health funding model that allows autonomy and ensures employee motivation through tailoring the working conditions to suit the needs of medical practitioners. DHBs in New Zealand are run in the model of decentralisation which gives a leeway for autonomy in terms of being responsive to the needs of medical practitioners at local level especially through incentives for motivating medical practitioners.

***Fiscally sustainable financial incentives.***

Fiscally sustainable financial incentives relative to the New Zealand economy are also recommended. The aim of such incentives will not be to compete with health systems of other developed world English speaking countries. Although competing with other countries in monetary terms can be ideal, it is not practical to sustain such a competition given the smaller size of the New Zealand economy. Rather the aim will be to make the best use of available resources to an extent that can reasonably be accepted by medical practitioners.

***Boosting loyalty and recognition.***

This study showed that loyalty was central in the decisions of medical practitioners to stay in New Zealand and therefore is taken seriously in the context of findings of this study because loyalty appeared to be one of the major reasons for choosing to stay in New Zealand. It is therefore recommended that New Zealand should make a deliberate effort to boost or to reward loyalty. Since medical practitioners indicated how important recognition is in terms of feeling valued, New Zealand should make deliberate efforts to engage employees in decision-making, which may be possible through engaging the employee organisations such as the Association of Salaried Medical Specialists and the New Zealand Resident Doctors Association.

***Supporting lifestyle preferences of medical practitioners.***

Workforce planning stakeholders could capitalise on strategies aimed at making the New Zealand practice environment unique such as making overt policies aimed at supporting lifestyle preferences of medical practitioners both in the personal and professional spheres. As has been acknowledged earlier on lifestyle preferences of medical practitioners seem to be changing and becoming diverse. Given the wide age

range of medical practitioners in the New Zealand workforce strategies aimed at supporting lifestyle preferences of medical practitioners should aim at all ages of medical practitioners and in various stages of their career.

***Deliberate strategies aimed at creating inertia.***

One conclusion in this research has been that the medical workforce has a tendency to be mobile and therefore strategies aimed to counter the direction of this flow could be those aimed at creating inertia. Medical practitioners seemed to mention reasons concerning family and love of the environment and lifestyle as paramount in their migration decisions. Possibly in the future, a review of accommodativeness of employee working conditions to family and lifestyle should be in the agenda to create inertia.

Some medical practitioners mentioned unique personal factors such as chance as a factor. One might therefore interpret an element of flexibility in their lives and therefore workforce retention strategies could be the ones that centre of creating inertia. These strategies of creating inertia include voluntary bonding or offering mortgage loans so that medical practitioners have fixed assets that may tie them to New Zealand. This strategy could be exploited not only by medical practitioner employing workforce experts only but by other sectors of the society such as city and town councils. Inertia could also be created through making clear career pathways and possible leadership pathways that are deliberately planned and incorporated into employment agreements.

***Ensuring accountability in workforce planning.***

As has been seen in the literature review different governments have come with different agendas which have had an impact on workforce adequacy. Given the importance of the medical workforce in the health system and given that in New Zealand there is history of workforce planning stances that are affiliated to political parties that have resulted in long term shortages, it is recommended that workforce planning should be done independent of politics. At a minimum it should at least be undertaken in consultation with independent private organisations/ contracted human resource consultant companies or research companies such as NZIER. In this way the current government workforce planning agency could triangulate its workforce forecasting, where a subcontracted private specialist consulting company will advise its workforce planning initiatives based on economic and scientific models. Ideally, a comprehensive approach towards workforce modelling should be dynamic and project for both short term and long-term workforce needs. The privatisation of workforce

planning will ensure accountability, non-political interference and quality through peer review. Ideally, to ensure competitiveness and sustainability these medical workforce plans will be aligned closely with business strategies and fiscal policies. The target will be to achieve and implement complex and multifaceted approaches aimed at both recruitment and retention, where recruitment drives factor in the global dynamics and competition for medical professionals.

***Building and expanding the research evidence base to inform workforce planning.***

There is a need to build an evidence base about workforce needs in New Zealand. A sound evidence base is central to any efforts or strategies for retention and moving towards workforce adequacy. Databases with up to date data on migration numbers and trends are needed. New direction in the design of retention strategies should be informed by current knowledge about lifestyle preferences of medical practitioners and also should be informed by current knowledge of the separate profiles of New Zealand-produced medical graduates and that of international medical graduates. Similarly, since family and spouses are important in migration decisions, a profile of partnership arrangements should be researched, with the aim of aiding workforce projections.

**11.7 Summary of recommendations**

In summary, to manage the migration of medical practitioners from New Zealand to Australia, the New Zealand workforce planning stakeholders could adopt the recommendations in Table 50.

Table 50  
*Summary of recommendations*

---

<b>Recommendations</b>	
1	Adopting international approaches such as having bilateral or regional medical education and graduate placement initiatives that promote diversity of experience and support wishes of medical practitioners to work abroad
2	Establishing a single medical education and employment area of New Zealand and Australia to diversify work choices and better compete in the global market for medical practitioners
3	Deliberate and targeted marketing of factors that make New Zealand a unique regional and global competitor for medical practitioners
4	Responsiveness and dynamism in workforce planning to accommodate local, national and/ or globally changes in the workforce scene
5	A focus on support and retention programmes for IMGs that are unique and competitive at international level
6	Strengthen accountability in workforce planning by triangulating this task which is mainly government-led, with input from private human resource companies
7	More treasury contribution to medical education expenses incurred by students to reduce the burden of repayment of student loans
8	Fiscally sustainable financial incentives relative to the New Zealand economy
9	Multi-stakeholder approaches characterised by shared responsibility among such entities as local and the national government, professional associations, regulatory bodies, DHBs and other employer organisations in making working as a medical practitioner in New Zealand favourable
10	Promotion of family and social lives of medical practitioners through national and local authority level policies and strategic initiatives
11	Promoting more initiatives that will create inertia such as bonding schemes
12	Boosting loyalty through taking actions that give employees the feelings of being recognised such as non-monetary rewards
13	Building and expanding a research evidence base to inform the direction of national workforce planning initiatives

---

## Chapter 12: Conclusion

As has been said above, the New Zealand medical workforce scenario has both challenges and opportunities in terms of medical practitioner migration. These need to be capitalised on as a platform for action and future policy planning. This study might impact on the types of policies designed to address the emigration challenges and on the other hand to boost the already existing opportunities. In addition to serving as a platform for policy action the hope is that this research might provoke or open discussions that are focused on both conceptualising the issue and also tacking action to address it. This issue might mean thinking further than in terms of just migration but considering more courageous and sustainable economic initiatives and workforce policies on a broader scale. The findings of this thesis provide an evidence base which attests that the development of local, regional and interstate interventions to the trans-Tasman medical practitioner migration are long overdue. These interventions should be both incremental and transformational as well as being multifaceted. It is worthwhile to emphasise the need for a bolder vision to drive workforce strategies and a willingness to take radical steps to achieve the results. Until New Zealand adopts sound and more courageous economic initiatives and socio-economic policies, this trend might continue to prevail. It is also worthwhile to emphasise that the growing interdependence of economies regionally and globally is a good predictor that the trans-Tasman medical practitioner migration will not be static but will follow increasingly more complex patterns.

# Appendices

## Appendix A: Information Sheet

<b>INFORMATION SHEET</b>	
	
<b>INVITATION</b>	
<p>You are invited to take part in a research project that aims to investigate issues of medical workforce adequacy in New Zealand and to find out why medical practitioners are making the choices about either staying in New Zealand or about moving specifically to Australia, and what potential there is to influence these choices by those concerned with workforce issues. The study is being conducted by <b>Charles Mpofu</b> and will contribute to the <b>Doctor of Medical Education degree project</b> at James Cook University.</p>	
<b>PROCEDURES</b>	
<p>If you agree to be involved in the study, you will be invited to fill in a survey questionnaire online and there is an option of having a hard copy will be posted to you. Later on if you wish you can have an opportunity to be interviewed. The interview, with your consent, will be audio-taped, and should only take approximately 1 hour of your time. The interview will be conducted at a venue of your choice or over the telephone. The survey questionnaire asks you about factors that make medical graduates leave or stay in New Zealand and /or your perceptions about these factors. The questionnaire should take approximately 45 minutes to complete.</p>	
<p>Taking part in this study is completely voluntary and you can stop taking part in the study at any time without explanation or prejudice. You may also withdraw any unprocessed data from the study.</p>	
<p>If you know of others that might be interested in this study, can you please pass on this information sheet to them so that they may contact me to volunteer for the study.</p>	
<p>Your responses and contact details will be strictly confidential. The data from the study will be used in research publications and reports to any agency that may request this work. You will not be identified in any way in these publications.</p>	
<p>If you have any questions about the study, please contact <b>Charles Mpofu and Prof. Tarun Sen Gupta</b></p>	
<b>Principal Investigator:</b> <b>Charles Mpofu</b> <b>School Medicine and Dentistry</b> <b>James Cook University</b> <b>Phone:</b> <b>Mobile:</b> <b>Email: Charles.mpofu@jcu.edu.au</b>	<b>Supervisor: Name:</b> <b>School: Prof. Tarun Sen Gupta</b> <b>James Cook University School</b> <b>Medicine and Dentistry</b> <b>Phone:</b> <b>Mobile:</b> <b>Email: tarun.sengupta@jcu.edu.au</b>

## Appendix B: Informed Consent Form

Informed Consent Form		
		
PRINCIPAL INVESTIGATOR	<b>Charles Mpofu</b>	
PROJECT TITLE:	The trans-Tasman migration of New Zealand Medical practitioners: A Qualitative Mixed Methods Case Study	
SCHOOL	<b>School of Medicine and Dentistry</b>	
<p>I understand the aim of this research study is to investigate issues of medical workforce adequacy in New Zealand and to find out why medical practitioners are making the choices about either staying in New Zealand or about moving specifically to Australia, and what potential there is to influence these choices by those concerned with workforce issues. I consent to participate in this project, the details of which have been explained to me, and I have been provided with a written information sheet to keep.</p> <p>I understand that my participation will involve a survey questionnaire or an interview or both and I agree that the researcher may use the results as described in the information sheet.</p> <p>I acknowledge that:</p> <ul style="list-style-type: none"><li>- any risks and possible effects of participating in the <i>interviews and survey</i> have been explained to my satisfaction;</li><li>- taking part in this study is voluntary and I am aware that I can stop taking part in it at any time without explanation or prejudice and to withdraw any unprocessed data I have provided;</li><li>- any information I give will be kept strictly confidential and that no names will be used to identify me with this study without my approval;</li></ul> <p style="text-align: right;"><i>(Please tick to indicate consent)</i></p>		
<b>I consent to be interviewed</b>	<b>Yes</b>	<b>No</b>
<b>I consent for the interview to be audio taped</b>	<b>Yes</b>	<b>No</b>
<b>I consent to complete a questionnaire</b>	<b>Yes</b>	<b>No</b>

**Appendix C: Ethics Approval (James Cook University)**

This administrative form  
has been removed

**Appendix D: Ethics Approval (AUT University)**

This administrative form  
has been removed

## Appendix E: Questionnaire for New Zealand Medical Practitioners and Workforce Experts



Thank you for taking part in this questionnaire for medical practitioners and workforce experts with interest medical workforce issues. Workforce experts, government officials, and migration researchers and any other person with interest in medical migration are also invited. THE ONLINE VERSION CAN ALSO BE REQUESTED FROM: [cmpofu@aut.ac.nz](mailto:cmpofu@aut.ac.nz) or [tarun.segupta@jcu.edu.au](mailto:tarun.segupta@jcu.edu.au)

This questionnaire is divided into four sections. The first section is about background information. The second on factors that cause emigration of medical practitioners from New Zealand to Australia, current challenges in the medical workforce and strategies of retention.

### SECTION A: Background Information

1. Contact details (for communication purposes only and will be kept separate from results)

Email address..... Contact phone number.....

2. Do you describe yourself as a researcher? Yes  No
3. Do you describe yourself as a medical educator? Yes  No
4. Which DHB do you work for? (If not applicable write N/A)

Question 5 is for those who are not medical doctors only.

5. Which of the following is your designation or interest in this topic

A. Researcher B. Politician C. Employer

D. Other (Please explain)

.....  
.....

	-2	-1	0	+1	+2
Strongly disagree			Mixed feelings		Strongly agree

SECTION B: Please rate how strongly you agree that the following cause of medical migration to Australia	-2	-1	0	1	2
1. Higher salaries					
2. Remuneration packages					
3. Training and Continued Professional Development (CPD)					
4. Heavier workload in New Zealand					
5. Higher expenses in medical schools					
6. Family factors					

	-2	-1	0	+1	+2
Strongly disagree			Mixed feelings		Strongly agree

SECTION C: Please rate how strongly you agree that the following undergraduate admission schemes are helping in achieving medical workforce adequacy	-2	-1	0	1	2
7. Māori and Pacific Admission schemes					
8. Rural origin preferential entry scheme					



**Section H: Open Ended Questions**

25. What other factors may have influenced your decision to remain working in New Zealand instead of migrating to Australia?

.....  
.....

26. What are the factors that make medical practitioners migrate to Australia?

.....  
.....

27. If any are there any reasons that could make you want to leave New Zealand for Australia?

.....  
.....

28. Please comment on the working conditions of medical practitioners in New Zealand.

.....  
.....

29. Any other relevant information?

.....

## Appendix F: Questionnaire for New Zealand Medical Graduates who Emigrated to Australia



The first section of this questionnaire seeks your demographic data while second one is about factors that may influence medical practitioner's decision to migrate.

### Section A: Demographic Profile

1. Your age group (Please tick)

- Below 20    21-25  
 26-30    31-35  
 36-40    41-45  
 46-50    50-55  
 56-60    61-65  
 66 and above

2. Gender

- Female                       Male

3. Marital status

- Single                       Married/Living with partner

4. Country of birth:

- New Zealand  
 Other (please specify)

.....

5. Educational qualification .....

6. Your first language: .....

7. State the Post-Graduate training that you intend to do / are already doing /have done?

- |                                |                          |                    |                          |
|--------------------------------|--------------------------|--------------------|--------------------------|
| General Practitioner           | <input type="checkbox"/> | Anaesthetist       | <input type="checkbox"/> |
| Dermatologist                  | <input type="checkbox"/> | Emergency Medicine | <input type="checkbox"/> |
| Obstetrician and Gynaecologist | <input type="checkbox"/> | Ophthalmologist    | <input type="checkbox"/> |
| Paediatrician                  | <input type="checkbox"/> | Pathologist        | <input type="checkbox"/> |
| Specialist Physician           | <input type="checkbox"/> | Psychiatrist       | <input type="checkbox"/> |
| Radiologist                    | <input type="checkbox"/> | Surgeon            | <input type="checkbox"/> |
| Other (Please specify).....    |                          |                    |                          |

8. In which country did you qualify?

.....

9. How many years did you work in New Zealand before you left?

- 0-5    6-10  
 11-15    16 and above



**Section D: Open Ended Questions**

27. What other factors may have influenced your decision to work outside New Zealand?

.....  
.....

28. What other factors may have influenced you to stay in New Zealand?

.....

29. What could make you want to return back there?

.....  
.....

30. Any other relevant information?

.....

**Appendix G: Semi-Structured Interview Questions for Workforce Experts and Medical Practitioners (Australian Sub-Project and New Zealand Sub-Project)**



**SECTION A: DEMOGRAPHIC PROFILE**

**Your age group (Please tick)**

- Below 20  21-25
- 26-30  31-35
- 36-40  41-45
- 46-50  50-55
- 56-60  61-65
- 66 +

**Gender**

- Female  Male

**Country of birth:**

- New Zealand  Other (please specify)

.....  
**In which country did you qualify?**

**State the Post-Graduate training that you intend to do / are already doing /have done?**

- General Practitioner       Anaesthetist
- Dermatologist       Emergency Medicine
- Obstetrician and Gynaecologist       Ophthalmologist
- Paediatrician       Pathologist
- Specialist Physician       Psychiatrist
- Radiologist  Surgeon
- Other (Please specify).....

**How many years have you been in practice in New Zealand?**

0-5 6-10

11-15 16 and above

**State /District of Practice now.....**

**OPEN-ENDED QUESTIONS**

**Tell me your views about medical graduates' working conditions in New Zealand**

.....

**Please comment on the factors may make New Zealand trained medical graduates migrate to Australia.**

.....

**Please comment on the factors may make New Zealand trained medical graduates stay in New Zealand instead of migrating to Australia.**

.....

**What do you think can make them want to return back from Australia?**

.....

**14. Any other information**

.....

## Appendix H: Web-Based Questionnaire Sample Screenshot



**JAMES COOK  
UNIVERSITY**  
AUSTRALIA

[Exit this survey](#)

### An Invitation to Medical Practitioners/ Work force experts and other key stakeholders

#### 1. PARTICIPANT INFORMATION SHEET

*Principal Investigator: Charles Mpofu  
School Medicine and Dentistry  
James Cook University  
Email: Charles.mpofu@jcu.edu.au*

*Supervisor Name: Professor R.Hay  
Professor T.Sen Gupta  
School Medicine and Dentistry*

*The study is being conducted by Charles Mpofu and will contribute to the Doctor of Medical Education degree project at James Cook University. This questionnaire is for medical practitioners and key stakeholders who include anyone with interest medical workforce issues. Workforce experts, government officials, and migration researchers and any other person with interest in medical migration are also invited. Taking part in this study is completely voluntary and you can stop taking part in the study at any time without explanation or prejudice. You may also withdraw any unprocessed data from the study. Your responses and contact details will be strictly confidential. The data from the study will be used in research publications and reports to health ministries that may request this work. You will not be identified in any way in these publications. If you have any questions about the study, please*

contact Charles Mpofu on +64 21 1320790 or Prof. Tarun sen Gupta on +61 7 4781 6222.

Progress bar showing 9%

Next

Powered by **SurveyMonkey**  
Check out our [sample surveys](#) and create your own now!

**Appendix I: Map of DHBs in New Zealand with Arrows Pointing to the Sampled DHBs**

(Adapted from: <http://www.nsu.govt.nz/current-nsu-programmes/4706.aspx>)



## Appendix J: Copyright Requests

This administrative form  
has been removed

## Appendix K: Sample Questions from Astor et al., (2005)

Item	High significance (%)	Medium significance (%)	Low significance (%)	No response (%)
Desire for a higher income/more buying power	90.8	7.0	2.2	
Desire for a higher income relative to the incomes of other professionals	58.4	24.7	16.6	0.3
Desire for increased access to enhanced technology, equipment and health facilities for medical practice	74.1	18.3	7.6	
Desire to travel to a country with a higher number of medical jobs available	50.2	29.2	20.5	0.2
Desire to work in an academic environment with more colleagues in one's field of interest	48.3	27.6	24.1	
Desire for increased prestige associated with being a physician abroad	40.5	29.5	30.0	
Desire to live in a country with a higher level of general safety	51.9	22.7	25.5	
Desire to live in a country with increased economic stability	72.5	15.8	11.5	0.2
Desire for better prospect for one's children	78.0	14.0	7.8	0.3

Note. 1. Adopted questions have been highlighted- Compare with Appendix E

2. Permission in Appendix J: Copyright requests

Item	Agree (%)	Neither agree nor disagree (%)	Disagree (%)	No (%)
Medical education provides students with highly specialized skills that they can utilize to a greater extent in other countries	55.6	26.7	17.5	0.2
Shortening the length of medical education would reduce the number of physicians who seek work abroad	8.9	14.8	76.4	
Shortening the length of residency programs would reduce the number of physicians who seek work abroad	8.2	16.9	74.8	
Medical school is very expensive, and medical graduates are often forced to recoup their expenses by working abroad	30.3	24.5	45.2	
Medical schools judge their success, in part, by how many of their graduates are accepted at foreign residency programs	28.7	26.2	44.9	0.2

Note. 1. Adopted questions have been highlighted -Compare with Appendix E

2. Permission in Appendix J: Copyright requests

Policy recommendations (n = 644)				
Item	Agree (%)	Neither agree nor disagree (%)	Disagree (%)	No response (%)
Increasing physician income would be an effective way to reduce physician migration	83.5	10.9	5.3	0.3
Increasing income is feasible, given the amount of resources present in your country	57.6	18.6	23.1	0.6
Improving physician-working conditions would be an effective way to reduce physician migration	87.0	8.9	4.0	0.2
Improving working conditions is feasible, given the amount of resources present in your country	66.1	18.2	15.5	0.2
There should be direct regulation of physician migration through migration control	28.3	20.8	50.9	
There should be a requirement for physicians to compensate your country if they gain employment abroad	39.1	16.8	43.9	0.2
There should be a requirement for recipient countries to compensate your country for the medical graduates that emigrate	46.9	16.1	37.0	
There should be a requirement for medical graduates to work in your country for a set amount of time after graduation	60.7	16.3	22.8	0.2
Compulsory service is likely to decrease medical migration in the long run	25.5	33.1	41.0	0.5
Training fewer physicians and more health care professionals with less expertise (i.e. nurses paramedics) would be an effective way to reduce the migration of health professionals	22.2	14.6	62.9	0.3
There should be an international agreement that requires all developed countries to compensate developing countries for the medical graduates who decide to migrate to developed countries	54.8	17.4	27.6	0.2
An international law or code that sets standards for the ethical recruitment of foreign physicians could reduce physician migration	46.9	28.0	24.8	0.3
Increased formal collaboration between medical schools of sending and recipient countries with explicit conditions of return could reduce the permanent migration of physicians	66.9	18.0	14.9	0.2
There should be increased collaboration between health ministries of sending and recipient countries to monitor and control the flow of physicians across borders	59.2	21.7	18.8	0.3

Note. 1. Adopted questions have been highlighted-Compare with Appendix E

2. Permission in Appendix J: Copyright requests



## Appendix M: Screen Capture of Coding in nVivo Software

The screenshot displays the nVivo software interface with the following components:

- Menu Bar:** File, Home, Create, External Data, Analyze, Explore, Layout, View.
- Toolbars:** Workspace, Item, Clipboard, Format, Paragraph, Styles, Editing.
- Nodes Panel (Left):**
  - Nodes
    - AustraliaProjectText&Intervi
    - NZ ProjectText&Intervi
    - old nodes
    - Relationships
    - Node Matrices
  - Sources
  - Nodes (Selected)
  - Classifications
  - Collections
  - Queries
  - Reports
  - Models
  - Folders
- Main Panel (Center):**

Look for: [Search In] NZ ProjectText&I Find Now Clear Advanced Find

**NZ ProjectTextInterviews**

Name	Sources	References	Created On	Created By	Modified On	Modified By
Training and continued professional development	1	20	1/06/2012 3:34 a.m.	CHARLES	1/06/2012 3:34 a.m.	CHARLES
Health system and Government policy factors	0	0	1/06/2012 3:40 a.m.	CHARLES	21/06/2012 1:25 a.m.	CHARLES
clinical resource and technological resources	2	18	1/06/2012 12:14 a.m.	CHARLES	21/06/2012 1:35 a.m.	CHARLES
Government, regulation and policy issues	2	12	30/05/2012 7:58 p.m.	CHARLES	21/06/2012 1:35 a.m.	CHARLES
Health system and clinical environment	2	20	29/05/2012 9:15 p.m.	CHARLES	21/06/2012 1:33 a.m.	CHARLES
student debt	1	10	21/06/2012 1:34 a.m.	CHARLES	21/06/2012 1:35 a.m.	CHARLES
Lifestyle family social and environment factors	0	0	29/05/2012 9:15 p.m.	CHARLES	20/06/2012 4:22 a.m.	CHARLES
family	1	18	20/06/2012 4:02 a.m.	CHARLES	20/06/2012 4:02 a.m.	CHARLES
Love for smallcities versus love for cosmopolitan lifestyle	2	19	1/06/2012 12:40 a.m.	CHARLES	1/06/2012 12:40 a.m.	CHARLES
Personal lifestyleand climate	3	18	1/06/2012 12:52 a.m.	CHARLES	20/06/2012 4:03 a.m.	CHARLES
Proximity to Australia	2	6	1/06/2012 4:06 a.m.	CHARLES	1/06/2012 4:06 a.m.	CHARLES
social factors	1	19	20/06/2012 4:04 a.m.	CHARLES	20/06/2012 4:07 a.m.	CHARLES
Management and colleague relationship factors	0	0	29/05/2012 9:15 p.m.	CHARLES	20/06/2012 3:45 a.m.	CHARLES
Collegial relationships	2	7	30/05/2012 10:34 p.m.	CHARLES	30/05/2012 10:34 p.m.	CHARLES
Issues specific to certain specialities	1	14	1/06/2012 4:32 a.m.	CHARLES	11/06/2012 12:36 a.m.	CHARLES
Management issues	1	21	30/05/2012 10:27 p.m.	CHARLES	10/06/2012 11:06 p.m.	CHARLES
Remuneration and Pay packages factors	0	0	1/06/2012 4:40 a.m.	CHARLES	20/06/2012 3:45 a.m.	CHARLES
Income relative to costs and relative to other profession	1	3	1/06/2012 4:40 a.m.	CHARLES	20/06/2012 3:41 a.m.	CHARLES
mixed feelings about salary	1	3	30/05/2012 8:20 p.m.	CHARLES	20/06/2012 2:49 a.m.	CHARLES
pay packages	0	0	20/06/2012 2:49 a.m.	CHARLES	20/06/2012 2:49 a.m.	CHARLES
Salary	2	27	1/06/2012 4:40 a.m.	CHARLES	20/06/2012 3:25 a.m.	CHARLES
Suggested Intervention and retention measures	0	0	29/05/2012 9:15 p.m.	CHARLES	21/06/2012 7:15 a.m.	CHARLES
Innovative retention and recruitment and sensible bon	1	13	30/05/2012 8:51 p.m.	CHARLES	21/06/2012 3:37 a.m.	CHARLES
- Status Bar (Bottom):** CHARLES 34 Items, 7:21 a.m., 21/06/2012.

## Appendix N: Remuneration of Consultant Equivalent Doctors and Dentists in English-Speaking Countries as at January 2012

	United Kingdom	Australia	New Zealand	Republic of Ireland	Canada	United States of America
Type of health system	Public with some private provision	Public with some private insurance	Public with private hospitals; some private insurance	Public and private/voluntary hospitals with public/private insurance	Public with some private provision	Private but with public subsidy through Medicare/Medicaid
Employment status of consultants	Employed with some private practice rights	Employed with some private practice rights	Employed with some private practice rights	Employed with some private practice rights	Self-employed and employed	Self-employed and employed
Method of pay determination	National pay scales	State certified agreements	National agreement	National agreement	Fees determined on a state basis	Fees determined by Medicare and insurers
Basic pay range (£)	74,504 – 100,446	86,002 – 116,254	60,471 – 91,913	156,577 – 163,448		
Average total earnings (£)	119,800 <sup>13</sup>		106,192		203,712	Wide variation depending on speciality
Other benefits		Salary packaging for reducing taxation liability	Additional benefits for recruitment and retention purposes	Special contribution benefit for recruitment and retention		
National Scheme to reward excellence or performance	Yes – Clinical Excellence Awards/ Distinction Awards	No	No	No	No	No

*Note: Currencies have been converted into pounds sterling using the monthly average exchange rate as at 28 February 2011 as published by the Bank of England.*

*Note.* Adapted under the Crown copyright 2012 terms of the Open Government Licence as stipulated in <http://www.nationalarchives.gov.uk/doc/open-government-licence/> from: Review Body on Doctors' and Dentists' Remuneration (2012)

## References

- Adams, C. (2013). Growth in research spending slows. *The New Zealand Herald*, p. B7.
- Adams, O., & Hicks, V. (2000). Pay and non-pay incentives, performance and motivation. Retrieved from [www.who.int/hrh/en/hrdj\\_4\\_3\\_02.pdf](http://www.who.int/hrh/en/hrdj_4_3_02.pdf)
- Akl, E. A., Maroun, N., Major, S., Afif, C., Abdo, A., Choucair, J., . . . Schünemann, H. J. (2008). Post-graduation migration intentions of students of Lebanese medical schools: A survey study. *BMC Public Health*, 8(191), 1–8.
- Anderson, M. W. (2004). The metrics of workforce planning. *Public Personnel Management*, 33(4), 364–379.
- Arango, J. (2004). Theories of international migration. In D. Joly (Ed.), *International migration in the new millennium* (pp. 15–35). London, UK: Ashgate Publishing.
- Armstrong, J. (2013, May 25). Public oblivious to clever accounting. *The New Zealand Herald*. Retrieved from [http://www.nzherald.co.nz/politics/news/article.cfm?c\\_id=280&objectid=10886008](http://www.nzherald.co.nz/politics/news/article.cfm?c_id=280&objectid=10886008)
- Association of American Medical Colleges. (2011). The 2011 state physician workforce data book. Retrieved from <https://www.aamc.org/download/263512/data/statedata2011.pdf>
- Association of Salaried Medical Specialists. (2010). *Issues Paper: State of the specialist workforce crisis in New Zealand's public hospitals*. Wellington. Retrieved from [http://www.asms.org.nz/Site/News/Media\\_Statements\\_2010/15\\_Aug\\_2010.aspx](http://www.asms.org.nz/Site/News/Media_Statements_2010/15_Aug_2010.aspx)
- Association of Salaried Medical Specialists Report. (2010). *New Zealand registrars lost to overseas employers: A report on an ASMS questionnaire*. Wellington: Association of Salaried Medical Specialists Retrieved from [http://www.asms.org.nz/Site/News/Perspective/Perspective\\_1a-Jun\\_2010.aspx](http://www.asms.org.nz/Site/News/Perspective/Perspective_1a-Jun_2010.aspx)
- Astor, A., Akhtar, T., Matallana, M. A., Muthuswamy, V., Olowu, F. A., Tallo, V., & Lie, R. K. (2005). Physician migration: Views from professionals in Colombia, Nigeria, India, Pakistan and the Philippines. *Social Science & Medicine*, 61(12), 2492–2500. doi:10.1016/j.socscimed.2005.05.003

- Australian Bureau of Statistics. (2012). Population size and growth. Retrieved from <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/1301.0~2012~Main%20Features~Population%20size%20and%20growth~47>
- Australian Institute of Health and Welfare. (2013). *Medical workforce*. Canberra, Australia: AIHW. Retrieved from <http://www.aihw.gov.au/publication-detail/?id=60129542627>
- Australian Medical Students Association. (2012). *National internship crisis updates*. Retrieved January 8, 2013, from <http://www.amsa.org.au/advocacy/internship-crisis/>
- Australian Tax Office. (2011). *Individual income tax rates*. Retrieved January 8, 2013, from <http://www.ato.gov.au/Rates/Individual-income-tax/>
- Bader, V. (2005). The ethics of immigration. *Constellations*, 12(3), 331–361.  
doi:10.1111/j.1351-0487.2005.00420.x
- Bajwa, S. J. S., Viridi, S. S., Bajwa, S. K., Ghai, G. K., Singh, K., Rana, C. S., . . . Puri, A. (2010). In depth analysis of motivational factors at work in the health industry. *Industrial Psychiatry Journal of India*, 19(1), 20–29.  
doi:10.4103/0972-6748.77631
- Bakewell, O. (2010). Some reflections on structure and agency in migration theory. *Journal of Ethnic and Migration Studies*, 36(10), 1689–1708.  
doi:10.1080/1369183X.2010.489382
- Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, 13(4), 544–559.
- Bazeley, P. (2004). Issues in mixing qualitative and quantitative approaches to research. In R. Buber, J. Gadner, & L. Richards (Eds.), *Applying qualitative methods to marketing management research* (pp. 141–156). London, UK: Palgrave Macmillan.
- Bedford, R. (2003). *New Zealand: The politicization of immigration*. Retrieved January 8, 2013, from <http://www.migrationinformation.org/profiles/display.cfm?ID=86>

- Bedford, R., Bedford, C., Ho, E., & Lidgard, J. (2002). The globalisation of international migration in New Zealand: Contribution to a debate. *New Zealand Population Review*, 28(1), 69–97.
- Bedford, R., Ho, E., & Hugo, G. (2003). Trans-Tasman migration in context: Recent flows of New Zealanders revisited. *People and Place*, 11(4), 53–62.
- Benson, S. G., & Dundis, S. P. (2003). Understanding and motivating health care employees: Integrating Maslow's hierarchy of needs, training and technology. *Journal of Nursing Management*, 11(5), 315–320. doi:10.1046/j.1365-2834.2003.00409.x
- Birch, S., Kephart, G., Tomblin-Murphy, G., O'Brien-Pallas, L., Alder, R., & MacKenzie, A. (2007). Health Human Resources Planning and the Production of Health: A Needs-Based Analytical Framework. *Canadian Public Policy*, 33(S1), S1-S16.
- Birrell, B. (2004). Australian policy on overseas-trained doctors. *Medical Journal of Australia*, 181(11), 635–639.
- Birrell, B. (2011). *Australia's new health crisis – Too many doctors*. Melbourne, Australia: Centre for Population and Urban Research, Monash University.
- Birrell, B., & Rapson, V. (2001). New Zealanders in Australia: The end of an era? *People and Place*, 9(1), 1–15.
- Birrell, B., Rapson, V., Dobson, I. R., & Smith, T. F. (2004). Skilled movement in the new century: Outcomes for Australia. Retrieved from [http://www.immi.gov.au/media/publications/pdf/skilled\\_movement.pdf](http://www.immi.gov.au/media/publications/pdf/skilled_movement.pdf)
- BMA. (2012). *Career paths of the future medical workforce*. Retrieved January 12, 2013, from <http://bma.org.uk/working-for-change/negotiating-for-the-profession/workforce/future-medical-workforce>
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. London, UK: Sage.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. doi:10.1191/1478088706qp063oa

- Brooks, P. M., Lapsley, H. M., & Butt, D. B. (2003). Medical workforce issues in Australia: "Tomorrow's Doctors—too few, too far". *Medical Journal of Australia*, 179(4), 206–208.
- Brown, R. P. C., & Connell, J. (2004). The migration of doctors and nurses from South Pacific island nations. *Social Science & Medicine*, 58(11), 2193–2210.  
doi:10.1016/j.socscimed.2003.08.020
- Buchan, J., Thompson, M., & O'May, F. (2000). Health workforce incentive and remuneration strategies: A research review. Retrieved from <http://www.who.int/en/>
- Byrne, M. (2006). The implications of Herzberg's "motivation-hygiene" theory for management in the Irish health sector. *The Health Care Manager*, 25(1), 4–11.
- Callister, P., Badkar, J., & Didham, R. (2008). *Who are New Zealand's doctors? Gender, migration and changing living arrangements*. Wellington, New Zealand: Institute of Policy Studies, Victoria University of Wellington. Retrieved from <http://ips.ac.nz/publications/files/8fccd50da04.pdf>
- Callister, P., Badkar, J., & Didham, R. (2009). Doctors and romance: Not only of interest to Mills and Boon readers. *Journal of Primary Health Care*, 1(2), 101–107.
- Canadian Alliance of Education and Training Organizations. (2004). Foreign credential recognition: An overview of practice in Canada. Retrieved from <http://www.arts.yorku.ca/soci/anisef/research/documents/ForeignCredentialRecognition.pdf>
- Canadian Institute for Health Information. (2010a). National physician database, 2009–2010. Retrieved from <https://secure.cihi.ca/estore/productFamily.htm?locale=en&pf=PFC1678>
- Canadian Institute for Health Information. (2010b). Supply, distribution and migration of Canadian physicians, 2009. Retrieved from <https://secure.cihi.ca/estore/productFamily.htm?locale=en&pf=PFC1567>
- Canadian Institute of Health Research. (2003). Strategic initiatives. Retrieved from [www.chr-irsc.gc.ca/services/initiatives/index\\_e.shtml](http://www.chr-irsc.gc.ca/services/initiatives/index_e.shtml)

- Canadian Resident Matching Service. (2010). *2010 Report on Canadian students studying abroad*. Ottawa: Canadian Resident Matching Service,. Retrieved from [https://www.carms.ca/pdfs/2010\\_CSA\\_Report/CaRMS\\_2010\\_CSA\\_Report.pdf](https://www.carms.ca/pdfs/2010_CSA_Report/CaRMS_2010_CSA_Report.pdf)
- Caney, S. (2001). International distributive justice. *Political Studies*, 49(5), 974–997. doi:10.1111/1467-9248.00351
- Carpeso, L. (2012). A qualitative case study. The who, the what, the why, and the how. Retrieved from <http://www.scribd.com/doc/51413289/Qualitative-Case-Studies>
- Carroll, E., & Dwyer, L. (1988). The shortages of nurses in NSW: A motivation hygiene approach to identifying problems and solutions. *Australian Health Review*, 11(1), 4–20.
- Castells, M. (1989). *The Informational City*. Cambridge: Blackwell.
- Chen, F., Fordyce, M., Andes, S., & Hart, L. G. (2010). Which medical schools produce rural physicians? A 15-year update. *Academic Medicine*, 85(4), 594–598. doi:10.1097/ACM.0b013e3181d280e9
- Chikanda, A. (2006). Skilled health professionals' migration and its impact on health delivery in Zimbabwe. *Journal of Ethnic and Migration Studies*, 32(04), 667-680.
- Christensen, L., & Johnson, B. (2004). *Educational research: Quantitative, qualitative, and mixed approaches* (2nd ed.). Sydney, Australia: Pearson.
- Clason, D. L., & Dormody, T. J. (1994). Analyzing data measured by individual Likert-type items. *Journal of Agricultural Education*, 35(4), 31- 35.
- Cohen, M. (1999, November). Women in medicine – The Canadian perspective Symposium conducted at the meeting of the Fourth International Medical Workforce Conference, San Francisco, CA.
- Collins, S. (2010). One thousand leave for Australia every week. *The New Zealand Herald*, p. A3.
- Commission on Competitive and Sustainable Terms and Conditions of Employment for Senior Medical and Dental Officers Employed by DHBs. (2009). *Senior doctors*

*in New Zealand: Securing the future*. Wellington, New Zealand: Ministry of Health.

Commission on the Resident Medical Officer Workforce. (2009). *Treating people well: Report of the director-general of health's commission on the resident medical officer workforce*. Wellington, New Zealand: Ministry of Health. Retrieved from <http://healthworkforce.govt.nz/sites/all/files/rmo-treating-people-well-aug09.pdf>

Connell, J. (2010). *Migration and the globalisation of health care: The health worker exodus?* Cheltenham, UK: Edward Elgar Publishing.

Cook, L. (2009). *The future of the medical workforce: First annual report November 2007–December 2008*. Wellington, New Zealand: Medical Training Board.

Creswell, J. W., & Plano Clark, V. L. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage.

Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. Sydney, Australia: Allen & Unwin.

*Raw data report on foreign trained doctors on register by country of training by year*. (2013). Wellington, New Zealand: Medical Council of New Zealand.

Cumming, J. (1998). Reforming New Zealand health care. In W. Ranade (Ed.), *Markets and health care: A comparative analysis* (pp. 122–146). London, UK: Longman.

Davidson, C., & Tolich, M. B. (1999). *Social science research in New Zealand*. Auckland, New Zealand: Longman.

Davison, I. (2010, July 16). Oz offering NZ doctors \$6000 a weekend. *The New Zealand Herald*. Retrieved from [http://www.nzherald.co.nz/nz/news/article.cfm?c\\_id=1&objectid=10659107](http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10659107)

de Castella, T. (2003). Health workers struggle to provide care in Zimbabwe. *The Lancet*, 362(9377), 46-47.

De Lisle, J. (2011). The benefits and challenges of mixing methods and methodologies: Lessons learnt from implementing qualitatively led mixed methods research designs in Trinidad and Tobago. *Caribbean Curriculum*, 18, 87–120.

- Department of Health and Ageing. (2012). *Health workforce*. Retrieved January 8, 2013, from <http://www.health.gov.au/internet/main/publishing.nsf/Content/Health+Workforce-2>
- Department of Health and Ageing. (2013). Medical Rural Bonded Scholarship (MRBS) Scheme. Retrieved from <http://www.health.gov.au/mrbscholarships>
- Department of Immigration and Citizenship. (2012). *New Zealanders in Australia*. Retrieved January 8, 2013, from <http://www.immi.gov.au/media/factsheets/17nz.htm>
- Department of Immigration and Citizenship. (2013a). Community information summary: New Zealand-born. Retrieved from [http://www.immi.gov.au/media/publications/statistics/comm-summ/\\_pdf/new-zealand.pdf](http://www.immi.gov.au/media/publications/statistics/comm-summ/_pdf/new-zealand.pdf)
- Department of Immigration and Citizenship. (2013b). *Visa options for doctors*. Retrieved January 31, 2013, from <http://www.immi.gov.au/skilled/medical-practitioners/visa-options-doctors.htm>
- Department of Labour. (2012). *Migration trends and outlook 2010–2011*. Retrieved January 8, 2013, from <http://www.dol.govt.nz/publications/research/migration-trends-1011/07.asp>
- District Health Boards New Zealand Resident Doctors' Association Collective Agreement. (2012). District Health Boards New Zealand Resident Doctors' Association Collective Agreement 1 April 2012 – 31 August 2013. Retrieved from <http://www.nzrda.org.nz/wp-content/uploads/2011/05/2012-RDA-MECA-for-printing.pdf>
- Doeringer, P. B., & Piore, M. J. (1985). *Internal labor markets and manpower analysis*. London, UK: D.C. Heath and Company.
- Donnell, H. (2011, February 16). Doctor shortage reaches 'crisis' level. *The New Zealand Herald*. Retrieved from [http://www.nzherald.co.nz/health/news/article.cfm?c\\_id=204&objectid=107067](http://www.nzherald.co.nz/health/news/article.cfm?c_id=204&objectid=107067)

- Drago, R., Pirretti, A., & Scutella, R. (2007). Agenda work and family directions in the USA and Australia: A policy research. *Journal of Industrial Relations*, 49(1), 49–66. doi:10.1177/0022185607072241
- Durie, M. (1994). *Whaiora: Maori health development*. Auckland, New Zealand: Oxford University Press.
- Dwyer, J. (2005). Global health and justice. *Bioethics*, 19(5/6), 460–475. doi:10.1111/j.1467-8519.2005.00458.x
- Dwyer, J. (2007). What's wrong with the global migration of health care professionals? Individual rights and international justice. *The Hastings Center Report*, 37(5), 36–43. doi:10.1353/hcr.2007.0070
- Easterbrook, M., Godwin, M., Wilson, R., Hodgetts, G., Brown, G., Pong, R., & Najgebauer, E. (1999). Rural background and clinical rural rotations during medical training: Effect on practice location. *Canadian Medical Association Journal*, 160(8), 1159–1163.
- Eckenwiler, L. A. (2009). Care worker migration and transnational justice. *Public Health Ethics*, 2(2), 171–183. doi:10.1093/phe/php015
- Edwards, P., Roberts, I., Clarke, M., DiGuseppi, C., Pratap, S., Wentz, R., & Kwan, I. (2002). Increasing response rates to postal questionnaires: Systematic review. *British Medical Journal*, 324(7347), 1183–1191. doi:10.1136/bmj.324.7347.1183
- ENZ. (2012). New Zealand General Practitioner Salaries. Retrieved from <http://www.enz.org/salary-general-practitioner.html>
- Eyal, N., & Hurst, S. A. (2008). Physician brain drain: Can nothing be done? *Public Health Ethics*, 1(2), 180–192. doi:10.1093/phe/phn026
- Ezzy, D. (2002). *Qualitative analysis. Practice and innovation*. Melbourne, Australia: Allen & Unwin.
- Fawcett, J., & Arnold, F. (1987). Explaining diversity: Asian and Pacific immigration systems. In J. Fawcett & B. Carino (Eds.), *Pacific bridges: The new immigration*

*from Asia and the Pacific Islands* (pp. 453–473). New York, NY: Center for Migration Studies.

Feldstein, P. J., & Butter, I. (1978). The foreign medical graduate and public policy: A discussion of the issues and options. *International Journal of Health Services*, 8(3), 541–558. doi:10.2190/N2MP-LRYM-88X1-NRJX

Fitzjohn, J., Wilkinson, T., Gill, D., & Mulder, R. (2003). The demographic characteristics of New Zealand medical students: The New Zealand wellbeing, intentions, debt and experiences (WIDE) survey of medical students 2001 study. *New Zealand Medical Journal*, 116(1183), 1–10.

Fookes, C. (2009). *Spending through the tax system: Tax expenditures*. Wellington, New Zealand: The Treasury. Retrieved from <http://www.treasury.govt.nz/publications/research-policy/ppp/2009/09-01/>

Fortney, J. (1972). Immigrant professionals: A brief historical survey. *International Migration Review*, 6(1), 50–62. doi:10.2307/3002278

Freeman, S. (2007). Distributive justice and the laws of people. In R. Martin & D. A. Reidy (Eds.), *Rawls's law of peoples: A realistic utopia*. London, UK: Blackwell Publishing.

Fryer, G. E., Stine, C., Vojir, C., & Miller, M. (1997). Predictors and profiles of rural versus urban family practice. *Family Medicine*, 29(2), 115–118.

Gable, G. G. (1994). Integrating case study and survey research methods: An example in information systems. *European Journal of Information Systems*, 3(2), 112–126. doi:10.1057/ejis.1994.12

Gautam, M., & Watkins, W. T. (2008, September). Physician morale and the medical workplace: A Canadian perspective *Canadian Medical Association*. Symposium conducted at the meeting of the International Medical Workforce Collaborative Conference, Edinburgh, Scotland.

General Medical Council. (2013). *Registration statistics*. Retrieved January 24, 2013, from [http://www.gmc-uk.org/doctors/register/search\\_stats.asp](http://www.gmc-uk.org/doctors/register/search_stats.asp)

- Gerring, J. (2004). What is a case study and what is it good for? *American Political Science Review*, 98(2), 341–354. doi:10.1017/S0003055404001182
- Giddings, L. S., & Grant, B. M. (2009). From rigour to trustworthiness: Validating mixed methods. In S. Andrew & E. Halcomb (Eds.), *Mixed methods research for nursing and the health sciences* (pp. 119–134). Malden, MA: Wiley-Blackwell. Retrieved from <http://dx.doi.org/10.1002/9781444316490.ch7>. doi:10.1002/9781444316490.ch7
- Gill, D., Palmer, C., Mulder, R., & Wilkinson, T. (2001a). Medical student career intentions at the Christchurch School of Medicine. The New Zealand well-being, intentions, debt and experiences (WIDE) survey of medical students pilot study. Results Part II. *New Zealand Medical Journal*, 114(1142), 465–467.
- Gill, D., Palmer, C., Mulder, R., & Wilkinson, T. (2001b). Medical student debt at the Christchurch School of Medicine. The New Zealand well-being, intentions, debt and experiences (WIDE) survey of medical students pilot study. Results Part I. *New Zealand Medical Journal*, 114(1142), 461–464.
- Goldsand, G., & Frechette, D. (2001). Medical practitioner workforce planning in Canada: From tradition to vision Symposium conducted at the meeting of the Sixth International Medical Workforce Conference, Ottawa, Canada.
- Gorman, D. (2011). The disposition and mobility of medical practitioners in New Zealand. *Journal of the New Zealand Medical Association*, 124(1330), 11–13.
- Gorman, D., & Brooks, P. M. (2009). On solutions to the shortage of doctors in Australia and New Zealand. *Medical Journal of Australia*, 190(3), 152–156.
- Gorman, D., Horsburgh, M., & Abbott, M. (2009). *A review of how the training of the New Zealand health workforce is planned and funded: A proposal for a reconfiguration of the clinical training agency*. Wellington, New Zealand: Health Workforce New Zealand.
- Goss, J., & Lindquist, B. (1995). Conceptualizing international labor migration: A structuration perspective. *International Migration Review*, 29(2), 317–351. doi:10.2307/2546784

- Grant, B. M., & Giddings, L. S. (2002). Making sense of methodologies: A paradigm framework for the novice researcher. *Contemporary Nurse, 13*(1), 10–28. doi:10.5172/conu.13.1.10
- Green, A. E., Power, M. R., & Jang, D. M. (2008). Trans-Tasman migration: New Zealanders' explanations for their move. *New Zealand Geographer, 64*(1), 34–45. doi:10.1111/j.1745-7939.2008.00125.x
- Greenberg, J. (1987). A taxonomy of organizational justice theories. *Academy of Management Review, 12*(1), 9–22.
- Gunderman, R. B., & Hubbard, M. A. (2005). The wages of healing: Ethical issues in the compensation of physicians. *Medical Science Monitor, 11*(2), 5–10.
- Guthrie, S., & Morgan, G. (2011, December 13). Inequality will lead us to a grim future. *The New Zealand Herald*, p. B2.
- Hagen-Zanker, J. (2008). *Why do people migrate? A review of the theoretical literature*. Maastricht, The Netherlands: Maastricht University. Retrieved from <http://ssrn.com/abstract=1105657>
- Hawthorne, L. (2007). *Foreign credential recognition and assessment: An introduction*. Retrieved from <http://www.parl.gc.ca/Content/LOP/researchpublications/prb0429-e.pdf>
- Hawthorne, L. (2010). How valuable is “two-step migration”? Labour market outcomes for international student migrants to Australia. *Asia–Pacific Migration Journal, 19*(1), 5–36.
- Head, M., Trim, S., & Walker, L. (2012). *Critical review of the pilot and final evaluation report of the Counties Manukau District Health Board demonstration pilot*. Wellington, New Zealand: New Zealand Nurses Organisation. Retrieved from [http://www.asms.org.nz/Site/News/Perspective/05\\_Jun\\_2012.aspx](http://www.asms.org.nz/Site/News/Perspective/05_Jun_2012.aspx)
- Health Research Council. (2010). *HRC guidelines on ethics in health research*. Retrieved June 11, 2010, from <http://www.hrc.govt.nz/news-and-publications/publications/ethics-and-regulatory>

- Health Workforce Australia. (2012). *Health workforce 2025: Medical specialties* (Vol. 3). Adelaide, Australia. Retrieved from [https://www.hwa.gov.au/sites/uploads/HW2025\\_V3\\_FinalReport20121109.pdf](https://www.hwa.gov.au/sites/uploads/HW2025_V3_FinalReport20121109.pdf)
- Health Workforce Australia. (2013). Health workforce by numbers. *Australia's Health Workforce Series*(1). Retrieved from <http://www.medicaldeans.org.au/wp-content/uploads/Health-Workforce-by-Numbers-FINAL.pdf>
- Health Workforce New Zealand. (2013a). *New roles and scopes*. Retrieved January 23, 2013, from <http://www.healthworkforce.govt.nz/new-roles-and-scopes>
- Health Workforce New Zealand. (2013b). *New Zealand medical workforce*. Retrieved January 23, 2013, from <http://www.healthworkforce.govt.nz/tools-and-resources/for-employers-educators/workforce-statistics-and-information/medical-workforce/facts>
- Health Workforce New Zealand. (2013c). *Voluntary bonding scheme*. Retrieved January 23, 2013, from <http://healthworkforce.govt.nz/our-work/voluntary-bonding-scheme/2012-intake>
- Henning, M. A., Hawken, S. J., & Hill, A. G. (2009). The quality of life of New Zealand doctors and medical students: What can be done to avoid burnout? *New Zealand Medical Journal*, *122*(1307), 102–110.
- Herzberg, F. (1964). The motivation-hygiene concept and problems of manpower. *Personnel Administrator*, *27*, 3–7.
- Herzberg, F., Mausner, B., & Snyderman, B. B. (1959). *The motivation to work* (2nd ed.). New York, NY: John Wiley.
- Hill, M. (2012, December 30). Specialist doctors continue to quit New Zealand. *Stuff.co.nz*. Retrieved from <http://www.stuff.co.nz/national/8129434/Specialist-doctors-continue-to-quit-New-Zealand>
- Hongoro, C., & McParke, B. (2004). How to bridge the gap in human resources for health. *The Lancet*, *364*(9443), 1451–1456. doi:10.1016/S0140-6736(04)17229-2

- Hsueh, W., Wilkinson, T., & Bills, J. (2004). What evidence-based undergraduate interventions promote rural health? *New Zealand Medical Journal*, *117*(1204), U1117.
- Hugo, G. (2004). New Zealanders in Australia in 2001. *New Zealand Population Review*, *30*(1 & 2), 61–92.
- Hugo, G. (2008). Immigrant settlement outside of Australia's capital cities. *Population, Space and Place*, *14*(6), 553–571. doi:10.1002/psp.539
- Hunn, D., Crampton, P., Foulkes, A., & Gorman, D. (2009). *Treating people well: The report of the director-general of health's commission on the resident medical officer workforce*. Wellington, New Zealand.
- Hussey, P. S. (2007). International migration patterns of physicians to the United States: A cross-national panel analysis. *Health Policy*, *84*(2–3), 298–307. doi:10.1016/j.healthpol.2007.04.005
- Iglehart, J. K. (2009). Reform and the Health Care Workforce — Current Capacity, Future Demand. *New England Journal of Medicine*, *361*(19), e38. doi:doi:10.1056/NEJMp0909521
- Immigration New Zealand. (2005). List of qualifications exempt from assessment. Retrieved from <http://www.immigration.govt.nz/opsmanual/archive/i35607.htm>
- Inland Revenue Department. (2012). *Income tax rates for individuals*. Retrieved January 8, 2013, from <http://www.ird.govt.nz/how-to/taxrates-codes/itaxsalaryandwage-incometaxrates.html>
- Jaakkimainen, R. L., Schultz, S. E., Glazier, R. H., Abrahams, C., & Verma, S. (2012). Tracking family medicine graduates. Where do they go, what services do they provide and whom do they see? *BMC Family Practice*, *13*(1), 26. doi:<http://dx.doi.org/10.1186/1471-2296-13-26>
- Jakubowski, E., & Hess, R. (2004). The market for physicians. In M. McKee, L. MacLehose, & E. Nolte (Eds.), *Health policy and European Union enlargement* (pp. 131–142). Berkshire: OUP. Retrieved from [http://www.euro.who.int/observatory/Studies/20040525\\_1](http://www.euro.who.int/observatory/Studies/20040525_1)

- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1(2), 112–133. doi:10.1177/1558689806298224
- Johnston, M. (2009, January 6). Australia opens door to NZ doctors. *The New Zealand Herald*. Retrieved from [http://www.nzherald.co.nz/nz/news/article.cfm?c\\_id=1&objectid=10618579](http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10618579)
- Johnston, M. (2011). Doctors and nurses doubt staff increases: Frontline workers haven't seen evidence of extra bodies government takes credit for. *The New Zealand Herald*, p. A6.
- Jolly, R. (2008). *Health workforce: A case for physician assistants?* Canberra, Australia. Retrieved from [http://www.health.gov.au/internet/nhhrc/publishing.nsf/Content/037-ahwi/\\$FILE/037%20Australian%20Health%20Workforce%20Institute%20Appendix%201.pdf](http://www.health.gov.au/internet/nhhrc/publishing.nsf/Content/037-ahwi/$FILE/037%20Australian%20Health%20Workforce%20Institute%20Appendix%201.pdf)
- Joyce, C. M., McNeil, J. J., & Stoelwinder, J. U. (2006). More doctors but not enough: Australian medical workforce supply 2001–2002. *Medical Journal of Australia*, 184(9), 441–517.
- Joyce, C. M., Stoelwinder, J. U., McNeil, J. J., & Piterman, L. (2007). Riding the wave: Current and emerging trends in graduates from Australian university medical schools. *Medical Journal of Australia*, 186(6), 309–312.
- Kaelin, L. (2011). A question of justice: Assessing nurse migration from a philosophical perspective. *Developing World Bioethics*, 11(1), 30–39. doi:10.1111/j.1471-8847.2010.00284.x
- Kassebaum, D. G., & Szenas, P. L. (1993). Rural sources of medical students, and graduates' choice of rural practice. *Academic Medicine*, 68(3), 232–236. doi:10.1097/00001888-199303000-00019
- Kea Zealand. (2012). *Every Kiwi counts 2011: Global census of Kiwi expats*. Retrieved January 8, 2013, from <http://www.keanewzealand.com/global/research>

- Keans, R., Myers, J., Adair, V., Coster, G., & Coster, H. (2006). What makes 'place' attractive to overseas-trained doctors in rural New Zealand? *Health and Social Care in the Community*, 14(6), 532–540. doi:10.1111/j.1365-2524.2006.00641.x
- Kelle, U. (1997). Theory building in qualitative research and computer programs for the management of textual data. *Sociological Research Online*, 2(2). Retrieved from <http://www.socresonline.org.uk/2/2/1> doi:10.5153/sro.86
- Khoo, S.-E., Hugo, G., & McDonald, P. (2011). Skilled migration from Europe to Australia. *Population, Space and Place*, 17(5), 550–566. doi:10.1002/psp.651
- Kingma, M. (2006). *Nurses on the move: Migration and the global health care economy*. New York, NY: Cornell University Press.
- Komaromy, M., Grumbach, K., Drake, M., Vranizan, K., Lurie, N., Keane, D., & Bindman, A. B. (1999). The role of black and Hispanic physicians in providing health care for underserved populations. *New England Journal of Medicine*, 334(20), 1305–1310. doi:10.1056/NEJM199605163342006
- Lambrou, P., Kontodimopoulos, N., & Niakas, D. (2010). Motivation and job satisfaction among medical and nursing staff in a Cyprus public general hospital. *Human Resources for Health*, 8(26), 1–9.
- Latham, G. P., & Ernst, C. T. (2006). Keys to motivating tomorrow's workforce. *Human Resource Management Review* 16(2), 181–198. doi:10.1016/j.hrmr.2006.03.014
- Latham, S. R. (2010). Too Few Physicians, or Too Many? *The Hastings Center Report*, 40(1), 11-12.
- Lee, E. S. (1966). A theory of migration. *Demography*, 3(1), 47–57. doi:10.2307/2060063
- Leece, P., Bhandari, M., Sprague, S., Swiontkowski, M. F., Schemitsch, E. H., Tornetta, P., . . . Guyatt, G. H. (2004). Internet versus mailed questionnaires: A randomized comparison. *Journal of Medical Internet Research*, 6(3), e30. doi:10.2196/jmir.6.3.e30
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic enquiry*. London, UK: Sage.

- Lumely, L. (2011). *Doctors leaving New Zealand: Analysis of online survey results*. Wellington, New Zealand: Medical Council of New Zealand.
- Mangalam, J. J., & Schwarzweller, H. K. (1970). Some theoretical guidelines toward a sociology of migration. *International Migration Review*, 4(2), 5–21. doi:10.2307/3092047
- Marett, A. (2011). *Workforce issues*. Wellington, New Zealand: New Zealand Parliament. Retrieved from <http://www.parliament.nz/en-nz/parliament/support/research-papers/00PlibCIP021/medical-workforce-issues>
- Maslow, A. H. (1954). *Motivation and personality*. New York, NY: Harper & Row.
- Massey, D. S. (1990). Social structure, household strategies, and the cumulative causation of migration. *Population Index*, 56(1), 3–26. doi:10.2307/3644186
- Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., & Taylor, J. E. (1993). Theories of international migration: A review and appraisal. *Population and Development Review*, 19(3), 431–466. doi:10.2307/2938462
- Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., & Taylor, J. E. (1998). *Worlds in motion: Understanding international migration at the end of the millennium*. Oxford, UK: Clarendon Press.
- Maxwell, J. (1997). Designing a qualitative study. In L. Bickman & D. J. Rog (Eds.), *Handbook of applied social research methods* (pp. 69–100). Thousand Oaks, CA: Sage.
- Maynard, A. (2006). Australia's health workforce medical workforce planning: Some forecasting challenges. *The Australian Economic Review*, 39(3), 323–329. doi:10.1111/j.1467-8462.2006.00422.x
- McDonald, M. D., Mendes, S. M., & Kim, M. (2007). Cross-temporal and cross-national comparisons of party left-right positions. *Electoral Studies*, 26(1), 62–75. doi:<http://dx.doi.org/10.1016/j.electstud.2006.04.005>
- McIntosh, T., Torgerson, R., & Klassen, N. (2007). *The ethical recruitment of internationally educated Health Professionals: Lessons from abroad and*

- options for Canada*. Ottawa: Canadian Policy Research Networks. Retrieved from [http://www.cprn.org/documents/46781\\_en.pdf](http://www.cprn.org/documents/46781_en.pdf)
- Medical Council of New Zealand. (2010). Comparable health system. Retrieved from <http://www.mcnz.org.nz/get-registered/registration-policy/general-scope-policy/comparable-health-system/>
- Medical Council of New Zealand. (2012). *The New Zealand medical workforce in 2011*. Retrieved January 15, 2013, from <http://www.mcnz.org.nz/assets/News-and-Publications/Workforce-Surveys/2011.pdf>
- Medical Deans of Australia and New Zealand. (2013). Medical schools outcomes database. *Projects and Activities*. Retrieved from <http://www.medicaldeans.org.au/projects-activities/msod>
- Medical Officers Northern Territory Public Sector Enterprise Agreement. (2012). Medical Officers Northern Territory Public Sector Enterprise Agreement 2011 – 2013. Retrieved from [http://www.ocpe.nt.gov.au/\\_data/assets/pdf\\_file/0019/53380/MO-2010-2013-EA.pdf](http://www.ocpe.nt.gov.au/_data/assets/pdf_file/0019/53380/MO-2010-2013-EA.pdf)
- Medical Training Review Panel. (2012). *Medical training review panel*. Canberra, Australia: Commonwealth of Australia. Retrieved from [http://www.health.gov.au/internet/main/publishing.nsf/Content/5CEA280FF6BD5659CA2579AE0000E151/\\$File/MTRP15.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/5CEA280FF6BD5659CA2579AE0000E151/$File/MTRP15.pdf)
- Meldrum, A. (2008). Zimbabwe's health-care system struggles on. *The Lancet*, 371(9618), 1059-1060.
- Mercer. (2012). *2011 Quality of living worldwide city rankings – Mercer survey*. Retrieved March 11, 2012, from <http://www.imercer.com/content/QOLPR.aspx>
- Meyer, J. P., Becker, T. E., Vandenberghe, C., Klein, K. J., & Zedeck, S. (2004). Employee commitment and motivation: A conceptual analysis and integrative model. *Journal of Applied Psychology*, 89(6), 991–1007. doi:10.1037/0021-9010.89.6.991
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis*. Thousand Oaks: Sage.

- Miller, D. (1995). *On nationality*. Oxford, UK: Clarendon Press.
- Miller, S. (2012). *Counties Manukau District Health Board demonstration pilot*. Wellington, New Zealand: HWNZ. Retrieved from <http://www.nzma.org.nz/sites/all/files/PAevaluationreport.pdf>
- Ministerial Review Group. (2009). *Meeting the challenge: Enhancing sustainability and the patient and consumer experience within the current legislative framework for health and disability services in New Zealand*. Wellington, New Zealand: Ministry of Health. Retrieved from <http://www.beehive.govt.nz/sites/all/files/MRG%20Report%20Meeting%20the%20Challenge.pdf>
- Ministry for Culture and Heritage. (1966). National groups. In A. H. McLintock (Ed.), *The Encyclopedia of New Zealand*. Wellington, New Zealand: Author.
- Ministry of Health. (2001). The primary health care strategy. Retrieved from <http://www.health.govt.nz/publication/primary-health-care-strategy>
- Ministry of Health. (2009). *The 2012/13 health targets*. Retrieved December, 2012, from <http://www.health.govt.nz/new-zealand-health-system/health-targets/2012-13-health-targets>
- Miriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco, CA: Jossey-Bass.
- Moonesinghe, S. R., Lowery, J., Shahi, N., Millen, A., & Beard, J. D. (2011). Impact of reduction in working hours for doctors in training on postgraduate medical education and patients' outcomes: systematic review. *BMJ*, 342. doi:10.1136/bmj.d1580
- Moore, J., Gale, J., Dew, K., & Simmers, D. (2006). Student debt amongst junior doctors in New Zealand; Part 2: Effects on intentions and workforce. *New Zealand Medical Journal*, 119(1229), 1–9.
- Morse, J. M. (2003). Principles of mixed methods and multimethod research design. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 189–208). Thousand Oaks, CA: Sage.

- Morton, J., Hider, P., & Schaab, K. (2008). Factors influencing the departure of non-consultant hospital doctors from Christchurch, New Zealand. *New Zealand Medical Journal*, 121(1273), 13–24.
- Mpofu, C., & Hocking, C. (2013). “Not made here”: Occupational deprivation of non-English speaking background immigrant health professionals in New Zealand. *Journal of Occupational Science*, 20(2), 131–145.  
doi:10.1080/14427591.2012.729500
- Mullan, F. (2005). The metrics of the physician brain drain. *New England Journal of Medicine*, 353(17), 1810–1818. doi:10.1056/NEJMs050004
- Murphy, G. T., Alder, R., & MacKenzie, A. (2008, September). Innovative needs-based approach to family Physician planning – Canada Symposium conducted at the meeting of the International Medical Workforce Collaborative Conference, Edinburgh, Scotland.
- Murray, M., Brown, J., Hinder, V., Merrie, A., Hill, A., Hulme-Moir, M., . . . Findlay, M. (2011). The colorectal cancer patients’ journey: The Auckland region. *New Zealand Medical Journal*, 124 (1331), 1–11.
- National DHB Collective Agreement. (2013). New Zealand District Health Boards Senior Medical and Dental Officers Collective Agreement 1 July 2013 Until 30 June 2016. Retrieved from [http://www.asms.org.nz/Site/Employment\\_in\\_NZ/National\\_DHB\\_Collective\\_Agreement\\_-\\_MECA/MECA.aspx](http://www.asms.org.nz/Site/Employment_in_NZ/National_DHB_Collective_Agreement_-_MECA/MECA.aspx)
- National Health Board. (2011). *District health boards links*. Retrieved January 8, 2013, from <http://www.nationalhealthboard.govt.nz/DHB-Links>
- National Rural Health Alliance. (2012, April 10). *Melbourne Manifesto: A Code of Practice for the International Recruitment of Health Care Professionals*. Retrieved April 10, 2012, from <http://www.ruralhealth.org.au/document/melbourne-manifesto-code-practice-international-recruitment-health-care-professionals>

- Negin, J. (2008). Australia and New Zealand's contribution to Pacific Island health worker brain drain. *Australian and New Zealand Journal of Public Health*, 32(6), 507–511. doi:10.1111/j.1753-6405.2008.00300.x
- New Zealand Herald. (2011a, December 3). A city to reckon with by any global measure. *The New Zealand Herald*, p. A26.
- New Zealand Herald. (2011b, November 10). Editorial: Bold moves vital to stop Tasman drift. *The New Zealand Herald*, p. A10.
- New Zealand Trade and Enterprise. (2012). The cloud on Queen's wharf research during RWC 2011. Retrieved from [http://www.nzte.govt.nz/features-commentary/In-Brief/Documents/The%20Cloud%20on%20Queen's%](http://www.nzte.govt.nz/features-commentary/In-Brief/Documents/The%20Cloud%20on%20Queen's%20)
- NHS Employers. (2012). NHS employers' submission to the pay review body on doctors' and dentists' remuneration 2013/14. Retrieved from <http://www.nhsemployers.org/SiteCollectionDocuments/DDRb%20submission%20final%20version.pdf>
- NSW Rural Doctors Network. (2011a). RACGP IMG fellowship support <http://www.socresonline.org.uk/2/2/1rant>. (05/12/11). Retrieved from [http://www.nswrdn.com.au/site/index.cfm?module=emailcampaign&campaign\\_ids=2140&pageMode=indiv\\_email\\_message&row\\_number=1](http://www.nswrdn.com.au/site/index.cfm?module=emailcampaign&campaign_ids=2140&pageMode=indiv_email_message&row_number=1)
- NSW Rural Doctors Network. (2011b). Supporting rural doctors in New South Wales. *Publications*. Retrieved from <http://www.nswrdn.com.au/site/>
- NZIER. (2004). *Ageing New Zealand and Health and Disability Services: Demand projections and workforce implications, 2001–2021. A discussion document*. Wellington, New Zealand: Ministry of Health.
- O'Neil, J. (2002). The rhetoric of deliberation: Some problems in Kantian theories of deliberative democracy. *Res Publica*, 8, 249–268.
- O'Brien-Pallas, L., Baumann, A., Donner, G., Murphy, G. T., Lochhaas-Gerlach, J., & Luba, M. (2001). Forecasting models for human resources in health care. *Journal of Advanced Nursing*, 33(1), 120-129.

- Orcutt, V. L. (2007). *The supply and demand of physician assistants in the United States: A trend analysis* (Doctoral dissertation). University of North Texas, Denton, TX.
- Organisation for Economic Corporation and Development. (2011). *Divided we stand: Why inequality keeps rising*. Geneva, Switzerland: Organisation for Economic Corporation and Development. Retrieved from [http://www.oecd.org/document/51/0,3746,en\\_2649\\_33933\\_49147827\\_1\\_1\\_1\\_1\\_00.html](http://www.oecd.org/document/51/0,3746,en_2649_33933_49147827_1_1_1_1_00.html)
- Organization for Economic Co-operation and Development. (2011). Medical doctors in OECD: Health at a Glance 2011. *OECD Indicators*.
- Osbourne, M. (2002). *Access to licensure for foreign qualified nurses*. Alberta, Canada: Alberta Network of Immigrant Women.
- Ozkan, B. C. (2004). Using NVivo to analyze qualitative classroom data on constructivist learning environments. *The Qualitative Report*, 9(4), 589–603.
- Pagett, C., & Padarath, A. (2007). A review of codes and protocols for the migration of health workers. Retrieved from <http://www.aspeninstitute.org/sites/default/files/content/images/review%20of%20codes%20and%20protocols%20pagett.pdf>
- Pathman, D. E., Steiner, B. D., Jones, B. D., & Konrad, T. R. (1999). Preparing and retaining rural physicians through medical education. *Academic Medicine*, 74(7), 810–820. doi:10.1097/00001888-199907000-00016
- Patinkin, D. (1968). A nationalist model. In W. Adams (Ed.), *The brain drain*. New York, NY: Macmillan.
- Patton, M. Q. (1990). *Qualitative evaluation and research methods*. London, UK: Sage.
- Petterson, S. M., Liaw, W. R., Phillips, J. R. L., Rabin, D. L., Meyers, D. S., & Bazemore, A. W. (2012). Projecting US Primary Care Physician Workforce Needs: 2010-2025 [Article]. *Annals of Family Medicine*, 10(6), 503-509. doi:10.1370/afm.1431

- Phillips, J. (2009). History of immigration *Te Ara – The Encyclopedia of New Zealand*. Wellington: Manatū Taonga Ministry for Culture and Heritage.
- Phillips, R. L., Jr., Petterson, S., Fryer, G. E., Jr., & Rosser, W. (2007). The Canadian contribution to the US physician workforce. *Canadian Medical Association Journal*, 176(8), 1083-1087.
- Pitts, J. M. (1994). *Personal understandings and mental models of information: A qualitative study of factors associated with the information-seeking and use of adolescents* (Doctoral dissertation). Florida State University, Tallahassee, FL.
- Polit, D., & Hungler, B. (1997). *Essentials of nursing research: Methods, appraisal, and utilization*. Philadelphia, PA: J.B. Lippincott Company.
- Poole, P. J., Moriarty, H. J., Wearn, A. M., Wilkinson, T., & Weller, J. M. (2009). Medical student selection in New Zealand: Looking to the future. *New Zealand Medical Journal*, 122(1306), 88–100.
- Poot, J. (1995). Do borders matter? A model of interregional migration in Australasia. *Australasian Journal of Regional Studies*, 1(2), 159–182.
- Poot, J. (2009). Trans-Tasman migration, transnationalism and economic development in Australasia. *Motu Working Paper 09(5)*. Retrieved from [http://www.motu.org.nz/publications/detail/trans-tasman\\_migration\\_transnationalism\\_and\\_economic\\_development\\_in\\_austral](http://www.motu.org.nz/publications/detail/trans-tasman_migration_transnationalism_and_economic_development_in_austral)
- QSR International. (2013). NVivo 10: Getting started. Retrieved from <http://download.qsrinternational.com/Document/NVivo10/NVivo10-Getting-Started-Guide.pdf>
- Rabinowitz, H. K. (1988). Evaluation of a selective medical school admissions policy to increase the number of family physicians in rural and underserved areas. *New England Journal of Medicine*, 319(8), 480–486.  
doi:10.1056/NEJM198808253190805
- Rabinowitz, H. K., Diamond, J. J., Markham, F. W., & Wortman, J. R. (2008). Medical school programs to increase the rural physician supply: A systematic review and projected impact of widespread replication. *Academic Medicine*, 83(3), 235–243.  
doi:10.1097/ACM.0b013e318163789b

- Radio New Zealand. (2010). Trainee doctors to do OE on full pay in trial. Retrieved from <http://www.radionz.co.nz/news/national/33418/trainee-doctors-to-do-oe-on-full-pay-in-trial>
- Ravenstein, E. G. (1885). The laws of migration. *Journal of the Royal Statistical Society*, 48(June), 167–227.
- Ravenstein, E. G. (1889). The laws of migration. *Journal of the Royal Statistical Society*, 52(June), 241–301. doi:10.2307/2979333
- Report of the 2025 Taskforce. (2009). *Answering the \$64,000 Question: Closing the income gap with Australia by 2025*. Wellington, New Zealand. Retrieved from <http://www.2025taskforce.govt.nz/fromthetaskforce.htm>.
- Review Body on Doctors' and Dentists' Remuneration. (2012). *Review of compensation levels, incentives and the Clinical Excellence and Distinction Award schemes for NHS consultants*. London, UK: Office of Manpower Economics. Retrieved from <http://www.fph.org.uk/uploads/DDRB%20final%20CEA%20report%5B1%5D.pdf>
- Robertson, R. (1992). *Globalization*. London, UK: Sage.
- Robinson, M. (2012). City doctors earn less than country cousins. *Sunday Star Times*, p. A6.
- Robinson, R. (2002). Gold for the national health system. *British Medical Journal*, 324, 987–988. doi:10.1136/bmj.324.7344.987
- Robinson, V., & Carey, M. (2002). Peopling skilled international migration: Indian doctors in the UK. *International Migration*, 38(1), 98–108.
- Rolfe, I. E., Pearson, S. A., O'Connell, D. L., & Dickinson, J. A. (1995). Finding solutions to the rural doctor shortage: The roles of selection versus undergraduate medical education at Newcastle. *Australia and New Zealand Journal of Medicine*, 25(5), 512–517. doi:10.1111/j.1445-5994.1995.tb01497.x
- Rourke, J. (2010a). How can medical schools contribute to the education, recruitment and retention of rural physicians in their region? *Bulletin of the World Health Organization*, 88(5), 395-396.

- Rourke, J. (2010b). WHO recommendations to improve retention of rural and remote health workers—important for all countries. *Rural Remote Health, 10*, 1654.
- Ryall, T. (2008). The National Party's solutions for New Zealand's healthcare system. *New Zealand Medical Journal, 121*(1283), 15–18.
- Sachau, D. A. (2007). Resurrecting the motivation-hygiene theory: Herzberg and the positive psychology movement. *Human Resource Development Review, 6*(4), 377–393. doi:10.1177/1534484307307546
- Sassen, S. (1991). *The Global City: New York, London, Tokyo*. Princeton: Princeton University Press.
- Schofield, D., & Beard, J. (2005). Baby boomer doctors and nurses: Demographic change and transitions to retirement. *Medical Journal of Australia, 183*(2), 80–83.
- Scholz, R. W., & Tietje, O. (2002). *Embedded case study methods: Integrating quantitative and qualitative knowledge*. London: Sage Publications Inc.
- Seglow, J. (2005). The ethics of immigration. *Political Studies Review, 3*(3), 317–334. doi:10.1111/j.1478-9299.2005.00026.x
- Seidel, J. (1991). Method and madness in the application of computer technology to qualitative data analysis. In N. Fielding & R. M. Lee (Eds.), *Using computers in qualitative research* (pp. 107–116). London, UK: Sage.
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information, 22*(2), 63–75.
- Simoens, S., & Hurst, J. (2006). The supply of physician services in OECD countries *OECD Health Working Papers NO. 21*. Retrieved from <http://www.oecd.org/els/health-systems/35987490.pdf>
- Simpson, C., & McDonald, F. (2011). 'Any body is better than nobody?' Ethical questions around recruiting and/or retaining health professionals in rural areas. *International Electronic Journal of Rural and Remote Health Research, 11*(4), 1867.

- Sjaastad, L. A. (1962). The costs and returns of human migration. *Journal of Political Economy*, 70(5), 80–93. doi:10.1086/258726
- Skoglund, E., & Taraldset, A. (2000). The manpower market for physicians in the Nordic countries 1980-2000. *Tidsskrift for den Norske laegeforening*, 120(17), 2030–2034.
- Smith, S. D. (2008). The global workforce shortages and the migration of medical professions: The Australian policy response. *Australia and New Zealand Health Policy*, 5(7). doi:10.1186/1743-8462-5-7
- Somer-Topcu, Z. (2009). Timely decisions: The effects of past national elections on party policy change. *The Journal of Politics*, 71(1), 238–248. doi:10.1017/S0022381608090154
- Spike, N. A. (2006). International medical graduates: The Australian perspective. *Academic Medicine*, 81(9), 842–846. doi:10.1097/00001888-200609000-00016
- Sprague, S., Quigley, L., & Bhandari, M. (2009). Survey design in orthopaedic surgery: Getting surgeons to respond. *Journal of Bone and Joint Surgery*, 91(3), 27–34. doi:10.2106/JBJS.H.01574
- Stake, R. (1995). *The art of case study research*. London: Sage.
- Stake, R. E. (1994). Case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *A handbook of qualitative research* (pp. 236–247). Thousand Oaks, CA: Sage.
- Stark, O. (1991). *The migration of labour*. Oxford, UK: Blackwell.
- Statistics New Zealand. (2008). Permanent and long-term migration to and from the United Kingdom. *International Travel and Migration Articles*. Retrieved from [http://www.stats.govt.nz/browse\\_for\\_stats/population/migration/permanent-long-term-uk.aspx](http://www.stats.govt.nz/browse_for_stats/population/migration/permanent-long-term-uk.aspx)
- Statistics New Zealand. (2010a). New Zealand's international migration statistics: 1860–1921. *International Travel and Migration Articles*. Retrieved from [http://www.stats.govt.nz/browse\\_for\\_stats/population/Migration/international-travel-and-migration-articles/nz-international-migration-statistics-1860-1921.aspx](http://www.stats.govt.nz/browse_for_stats/population/Migration/international-travel-and-migration-articles/nz-international-migration-statistics-1860-1921.aspx)

- Statistics New Zealand. (2010b). New Zealand's International Migration Statistics: 1922–2009. *International Travel and Migration Articles*. Retrieved from [http://www.stats.govt.nz/browse\\_for\\_stats/population/Migration/international-travel-and-migration-articles/nz-international-migration-statistics-1860-1921.aspx](http://www.stats.govt.nz/browse_for_stats/population/Migration/international-travel-and-migration-articles/nz-international-migration-statistics-1860-1921.aspx)
- Statistics New Zealand. (2010c). Research and Development Survey: 2010. Retrieved from [http://www.stats.govt.nz/browse\\_for\\_stats/businesses/research\\_and\\_development/ResearchandDevelopmentSurvey\\_HOTP2010/Commentary.aspx](http://www.stats.govt.nz/browse_for_stats/businesses/research_and_development/ResearchandDevelopmentSurvey_HOTP2010/Commentary.aspx)
- Statistics New Zealand. (2012). *Defining urban and rural New Zealand*. Retrieved April 8, 2012, from [http://www.stats.govt.nz/browse\\_for\\_stats/people\\_and\\_communities/geographic\\_areas/urban-rural-profile/defining-urban-rural-nz.aspx](http://www.stats.govt.nz/browse_for_stats/people_and_communities/geographic_areas/urban-rural-profile/defining-urban-rural-nz.aspx)
- Statistics New Zealand. (2013a). Annual wage rate growth continues to ease. Retrieved from [http://www.stats.govt.nz/browse\\_for\\_stats/economic\\_indicators/prices\\_indexes/LabourCostIndexSalaryandWageRates\\_MRMar13qtr.aspx](http://www.stats.govt.nz/browse_for_stats/economic_indicators/prices_indexes/LabourCostIndexSalaryandWageRates_MRMar13qtr.aspx)
- Statistics New Zealand. (2013b). *At least 1 million New Zealanders live overseas*. Retrieved January 19, 2013, from [http://www.stats.govt.nz/browse\\_for\\_stats/population/mythbusters/1million-kiwis-live-overseas.aspx](http://www.stats.govt.nz/browse_for_stats/population/mythbusters/1million-kiwis-live-overseas.aspx)
- Statistics New Zealand. (2013c). Historical population estimates tables. *Estimates and projections*. Retrieved from [http://www.stats.govt.nz/browse\\_for\\_stats/population/estimates\\_and\\_projections/historical-population-tables.aspx](http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/historical-population-tables.aspx)
- Statistics New Zealand, Ministry of Economic Development, & The Treasury. (2007). *Economic development indicators 2007*. Wellington, New Zealand: Statistics New Zealand. Retrieved from [http://www.stats.govt.nz/browse\\_for\\_stats/economic\\_indicators/productivity/development-indicators/2007-indicators.aspx](http://www.stats.govt.nz/browse_for_stats/economic_indicators/productivity/development-indicators/2007-indicators.aspx)

- Stern, D. T., Wojtczak, A., & Schwarz, M. R. (2003). The assessment of Global Minimum Essential Requirements in medical education. Schwarz MR; IIME Task Force for Assessment. *Medical Teacher*, 25(6), 589–595.
- Styles, R. (2012, January 23). Roger Styles: Vital more people get private health insurance. *The New Zealand Herald*, p. 6.
- Taché, S., & Schillinger, D. (2009). Health worker migration: Time for the global justice approach. *American Journal of Bioethics*, 9(3), 12–14.  
doi:10.1080/15265160802668970
- Tamir, Y. (1993). *Liberal nationalism*. Princeton, NJ: Princeton University Press.
- Tammaru, T., & Sjoberg, O. (1999). On the move: Explaining migration in Estonia during the transition period. *International Journal of Population Geography*, 5(4), 241–260. doi:10.1002/(SICI)1099-1220(199907/08)5:4<241::AID-IJPG147>3.0.CO;2-V
- Tan, K. (1997). Kantian ethics and global justice. *Social Theory and Practice*, 23(1), 53–73. doi:10.5840/soctheorpract19972313
- Tansey, O. (2007). Process tracing and elite interviewing: A case for non-probability sampling. *Political Science and Politics*, 40(4), 765–772.
- Teddlie, C., & Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research*, 1(77), 77–100.  
doi:10.1177/2345678906292430
- The Economist Intelligence Unit. (2011). *Global liveability report 2011*. Retrieved from [http://www.eiu.com/site\\_info.asp?info\\_name=The\\_Global\\_Liveability\\_Report](http://www.eiu.com/site_info.asp?info_name=The_Global_Liveability_Report)
- The New Zealand Herald. (2012, November 3). Brash says wage gap with Australia growing. *3News.co.nz*. Retrieved from <http://www.3news.co.nz/Brash-says-wage-gap-with-Australia-growing/tabid/423/articleID/231666/Default.aspx>
- Todaro, M. P. (1969). A model of labour migration and urban unemployment in less developed countries. *American Economic Review*, 59(1), 138–148.

- Toevai, S., & Kiong, E. (2007, December 19). Kiwis moving to Australia at 19-year high. *The New Zealand Herald*. Retrieved from [http://www.nzherald.co.nz/nz/news/article.cfm?c\\_id=1&objectid=10483282](http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10483282)
- Topham-Kindley, L. (2012). DHB-employed GPs enjoy pay increase. Retrieved from <http://www.nzdoctor.co.nz/in-print/2012/october-2012/24-october-2012/dhb-employed-gps-enjoy-pay-increase.aspx>
- Totton, N. (1999). The baby and the bathwater: 'Professionalisation' in psychotherapy and counselling. *British Journal of Guidance and Counselling*, 27(3), 313–324.
- Tuckett, A. G. (2005). Applying thematic analysis theory to practice: A researcher's experience. *Contemporary Nurse*, 19(1), 75-87.
- U.S. Census Bureau. (2012). *Active Physicians and Nurses by State*. Retrieved January 10, 2013, from <http://www.census.gov/epcd/ec97/def/6211.HTM>
- United Nations Human Rights. (1948). Universal Declaration of Human Rights. Retrieved from <http://www.ohchr.org/EN/UDHR/Pages/Language.aspx?LangID=eng>
- VanGeest, J. B., Johnson, T. P., & Welch, V. L. (2007). Methodologies for improving response rates in surveys of physicians. *Evaluation & the Health Professions*, 30(4), 303–321. doi:10.1177/0163278707307899
- Vowles, J. (1995). The Politics of Electoral Reform in New Zealand. *International Political Science Review / Revue internationale de science politique*, 16(1), 95–115. doi:10.2307/1601171
- Wade, A. (2011a, August 30). Auckland named world's 10th most liveable city. *The New Zealand Herald*, p. 1. Retrieved from [http://www.nzherald.co.nz/nz/news/article.cfm?c\\_id=1&objectid=10748419](http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10748419)
- Wade, A. (2011b, December 8). Goodbye NZ, hello \$100,000. *The New Zealand Herald*, p. A1.
- Walmsley, D. J., Epps, W. R., & Duncan, C. J. (1998). Migration to the New South Wales North Coast 1986–1991: Lifestyle motivated counterurbanisation. *Geoforum*, 29(1), 105–118. doi:10.1016/S0016-7185(97)00023-7

- Walrond, C. (2011). Kiwis overseas *The Encyclopedia of New Zealand*. Wellington, New Zealand: Ministry for Culture and Heritage.
- Walters, L., Worley, P., Prideaux, D., & Lange, K. (2008). Do consultations in rural general practice take more time when practitioners are precepting medical students? *Medical Education*, 1(42), 69–73.
- Weiner, J. P. (2007). Expanding the US medical workforce: Global perspectives and parallels. *British Medical Journal*, 335(7613), 236–238.  
doi:10.1136/bmj.39246.598345.94
- Wepa, D. (2005). *Cultural safety in Aotearoa New Zealand*. Auckland, New Zealand: Pearson.
- Wilson, J. (2013). History of New Zealand *The Encyclopedia of New Zealand*. Wellington, New Zealand: Ministry for Culture and Heritage.
- Woodward, C., & Hurley, J. (1995). Comparison of activity level and service intensity of male and female in five fields of medicine in Ontario. *Canadian Medical Association Journal*, 153(8), 1097–1106.
- World Health Organisation. (2000). The world health report 2000 - Health systems: improving performance. Retrieved from <http://www.who.int/whr/2000/en/>
- World Health Organization. (2010a). *Increasing access to health workers in remote and rural areas through improved retention: global policy recommendations*: World Health Organization.
- World Health Organization. (2010b). *Models and tools for health workforce planning and projections*. Geneva: WHO.
- Worley, P., & Walters, L. (2007). *Rural medical immersion program evaluation report*. Adelaide, Australia: Flinders University.
- Yelland, C. E., & Yelland, M. E. (2001). Women in medicine: Two generations. *Medical Journal of Australia*, 174(1), 52–53.
- Yin, R. K. (1994). *Case study research: Design and methods*. London, UK: Sage.

- Young, A. (2012, February 3). Treasury warning over cost of super. *The New Zealand Herald*, p. A5. Retrieved from [http://www.nzherald.co.nz/economy/news/article.cfm?c\\_id=34&objectid=10783094](http://www.nzherald.co.nz/economy/news/article.cfm?c_id=34&objectid=10783094)
- Young, A. (2013, January 22). Welfare reform priority for English. *The New Zealand Herald*. Retrieved from [http://www.nzherald.co.nz/nz/news/article.cfm?c\\_id=1&objectid=10860601](http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10860601)
- Young, R., & Leese, B. (1999). Recruitment and retention of general practitioners in the UK: What are the problems and solutions? *British Journal of General Practice*, 49(447), 829–833.
- Zurn, P., & Dumont, J. C. (2008). *Health workforce and international migration: Can New Zealand compete?* Geneva, Switzerland. Retrieved from <http://www.oecd.org/dataoecd/46/41/40673065.pdf>