A Sustainable Remote Health Workforce: Translating HRM Policy into Practice

Thesis submitted by
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BBus, GradDip(PH), MPH

July 2016

For the Degree of Doctor of Philosophy
in the College of Business, Law and Governance
James Cook University

Acknowledgements

What you get by achieving your goals is not as important as what you become by achieving your goals.

Henry David Thoreau

This thesis is my accomplishment, it marks the achievement of a goal; however, it would not have been possible without the support of all the people who make a thesis possible. Anyone who has written a thesis knows that it is a lonely journey, brightened by glimpses of progress, words of encouragement, guidance and support. It takes persistence, determination, resilience and, of course, a touch of stubbornness always helps!

To my husband, Rob, thank-you for your unwavering support. You always believed in me, sacrificed a lot and never complained about the sacrifice and inconvenience this thesis brought into our life. It's been a roller coaster and there is no-one more deserved of my gratitude than you. Thank-you also, to the many friends, particularly Linsey, Gerardine, Debbie and Trish, who have been there with moral support and lots of coffee!

To my supervisors, Dr Josephine Pryce, Professor Gianna Moscardo and Dr Paul Lynch, thank-you for your guidance, encouragement and support and for believing that I had what it takes to complete a thesis of this size. Thank-you also to my fellow PhD students, you taught me to never underestimate the value of a shared experience.

To the remote health professionals, managers and HR managers who participated in this research, and the organisations that employed them, thank-you for your overwhelming support. This thesis tells your stories and I thank-you for the privilege of being able to communicate your collective voice. You are some of the most courageous, caring and resilient people I have ever had the pleasure to meet, I thank you all for embracing me and my thesis, and for sharing your experiences so willingly.

There are many others to whom I am indebted, too many to name. So, to everyone who has helped me on this journey, I am forever grateful, not just for this thesis, for the person I have become as a result of this thesis.

Statement of the Contribution of Others

I would like to acknowledge the contribution of the following people and organisations without which this thesis would not have been possible.

Nature of Assistance	**Contribution**	**Name**
Supervision	Thesis Supervision	Principle Supervisor: Dr Josephine Pryce Co-Supervisor: Prof. Gianna Moscardo Co-Supervisor: Dr Paul Lynch
Financial support (Stipend)	Financial	Australian Post-graduate Award
Use of infrastructure	Minimum Financial Support Allocation	JCU – College of Business, Law and Governance
Statistical support	Assistance with statistical data analysis Assistance with statistical data analysis (path analysis)	Dr Josephine Pryce, Prof. Gianna Moscardo Dr Singwhat Tee, Dr Josephine Pryce
Qualitative Data Analysis	Independent data analysis (checking for possible bias)	Dr Josephine Pryce, Dr Paul Lynch
IT support	Access to research software and support with software updates (e.g. SPSS, NVIVO, Endnote)	JCU – IT services
Conference Presentations	Conference Travel and conference fees Conference Travel Scholarship Conference Travel and Accommodation	JCU – School of Business Australia and New Zealand Academy of Management (ANZAM) Centre for Rural and Remote Health (Mt Isa)
Data Collection	Contact people at each of the eight participating organisations – assisted me to gain permission to conduct the research and distributed the questionnaire	Names of people and organisations withheld to maintain confidentiality
Administrative Assistance	Processing documentation, assisting with travel and conference registrations, and arranging seminars.	JCU – College of Business, Law and Governance Administrative Assistants.

Statement of the Contribution of Others

I would like to acknowledge the contribution of my supervisors in the development of the publications incorporated in this thesis.

Chpt	Publications	Contribution	Name
2	Onnis L and Pryce J. (2016) Health professionals working in remote Australia: a review of the literature. *Asia Pacific Journal of Human Resources,* 54, p.32-56.	Editorial assistance Co-author Independent data analysis (checking for possible bias)	Prof. Gianna Moscardo Dr Paul Lynch Dr Josephine Pryce Dr Josephine Pryce
4	Onnis L. (2016) Attraction and Retention of Health Professionals in Remote Northern Australia: HRM practices in a geographically challenging context. Conference Proceedings. Academy of Management, HR Division International Conference (HRIC)	Editorial assistance Independent data analysis (checking for possible bias)	Dr Josephine Pryce Dr Josephine Pryce Dr Paul Lynch
4	Onnis, L. Recruiting remote health professionals: Human Resource Management in a geographically challenging context. (under review)	Editorial assistance Independent data analysis (checking for possible bias)	Dr Josephine Pryce Dr Josephine Pryce Dr Paul Lynch
5	Onnis L. (2016). What is a Sustainable Remote Health Workforce?: People, Practice and Place. *Rural and Remote Health* (Online) *16,* 3806.	Editorial assistance Independent data analysis (checking for possible bias)	Dr Josephine Pryce Prof. Gianna Moscardo Dr Paul Lynch Dr Josephine Pryce Dr Paul Lynch
6	Onnis L. HRM policies, management practices and health workforce sustainability: A remote Australian perspective. (under review)	Editorial assistance Independent data analysis (checking for possible bias)	Dr Josephine Pryce Prof. Gianna Moscardo Dr Paul Lynch Dr Josephine Pryce Dr Paul Lynch
6	Onnis L. (2014) Managers are the key to workforce stability: an HRM approach towards improving retention of health professionals in remote northern Australia. Conference Proceedings, 28th ANZAM Conference, 3-5 December, UTS Sydney.	Editorial assistance	Dr Josephine Pryce Prof. Gianna Moscardo Dr Paul Lynch.
7	Onnis L. (2015) An examination of supportive management practices promoting health workforce stability in remote northern Australia. *Australasian Psychiatry*, 23(6) 679–682.	Editorial assistance	Dr Josephine Pryce Prof. Gianna Moscardo Dr Paul Lynch

Title of Thesis: A Sustainable Remote Health Workforce: Translating HRM Policy into Practice.

Name of candidate: Leigh-ann Onnis

Chapter #	**Details of publication(s) on which chapter is based.**	**Nature and extent of the intellectual input of each author.**	**I confirm the candidate's contribution to this paper and consent to the inclusion of the paper in the thesis.**
Chapter Two	Onnis L and Pryce J. (2016) Health professionals working in remote Australia: a review of the literature. *Asia Pacific Journal of Human Resources*, 54, p.32-56.	The authors co-developed the structure of the paper. Onnis collected the data and performed the data analyses with assistance from the Pryce. Onnis wrote the first draft of the paper which was revised with editorial input from Pryce. Onnis developed the figures and tables.	**Name**: Dr Josephine Pryce **Signature:**

Thesis Abstract

This thesis examined the influence of management practices on Human Resource Management (HRM) policy choices that support the sustainability of health workforces in remote tropical northern Australia. This was achieved by answering four research questions: RQ1) What are the espoused HRM policies and how do they influence remote health workforce sustainability?; RQ2) What is a sustainable remote health workforce?: RQ3) How do HRM policy choices and management practices influence health workforce sustainability for health professionals working in remote regions of northern Australia?; and RQ4) How can management practices support the sustainability of remote health workforces?

This thesis commences with an introduction to the Australian health system, health workforces and geographical remoteness, and more particularly, the remote workforce, the remote environment and remote health services, highlighting the high rates of turnover experienced in some geographically remote regions of Australia. HRM policies and practices offer solutions for health workforce challenges, particularly in regard to overcoming workforce shortages. This thesis focused on the influence of management practices on the translation of HRM policies that support the sustainability of remote health workforces. This HRM approach complements those currently used in the health domain for analysing remote workforce challenges. Evidence-based HRM theories relevant to the workforce challenges experienced by remote health professionals build on current knowledge supporting more effective management of remote health workforces, so that Australian's living in remote regions receive consistent continuity of care and can experience better health outcomes through access to stable, reliable and sustainable health services.

Two separate but complementary literature reviews were conducted. The first reviewed the literature from the health domain using an HRM approach to examine the challenges identified by health professionals working in remote regions. The second examined the literature from the management domain using the Harvard Analytical Framework for HRM to guide data analysis and identified the overarching theories this thesis: Psychological Contract Theory and Social Exchange Theory. The synthesis of the findings from these two complementary bodies of literature, led to the development of the Theoretical Integrated HRM Framework (TI-HRM), the theoretical framework that guided data analyses for this thesis. A Mixed Methods Research (MMR) methodology and the pragmatism paradigm's philosophical approach shaped the research design for this thesis. Both qualitative and quantitative data were collected through three data sources – semi-formal interviews; an online questionnaire and recruitment advertisements.

Five chapters consecutively answer the research questions. Chapter four examines the espoused HRM policies in the recruitment advertisements and the reasons why current health professionals chose to work in remote regions, including, whether the experience met their expectations. Chapter four answered RQ1 revealing that the espoused HRM policies appear to influence workforce sustainability in three ways: attracting health professionals; psychological contract formation; and localised management practices. Chapter five answered RQ2 through examining how current remote health professionals described a sustainable remote health workforce, identifying three extant themes - people, practice and place. It concludes by revealing that the current remote health workforce believes that a SRHW is achievable; and that management practices influence the outcomes of many of the HRM policy choices that provide opportunities to improve retention.

Chapter six examines the *qualitative* interview data to identify HRM policy choices and management practices that could improve health workforce sustainability, through the employment experiences of health professionals currently working in remote regions of northern Australia. Four key areas of management practice linked to HRM policy choices were identified: recruitment; remuneration; resourcing; and relationships. Chapter seven, used the *quantitative* questionnaire data to examine how management practices influence workforce sustainability for health professionals working in remote regions of northern Australia. The findings revealed that where effective management practices exist, particular HR outcomes (professional isolation, empowerment and remuneration), together with work engagement, moderate for the achievement of a sustainable remote health workforce. Chapter six and seven contributed to answering RQ3, with chapter six concluding that the implementation of HRM policies in remote regions influences workforce sustainability as each manager applies their own policy interpretation into their management practices; and chapter seven concluding that without effective management practices, HRM policies and Human Resources (HR) outcomes are less likely to support workforce sustainability.

Chapter eight compared and contrasted the qualitative and quantitative findings discussed in chapters four to seven, using a mixed methods research methodology to answer RQ4. The chapter concluded with an examination of the framework developed through this thesis, the *Integrated HRM Framework for sustainable remote health workforces,* and how it addresses the key challenges for remote health workforce sustainability identified through both the literature and the empirical evidence contained in this thesis.

Finally, chapter nine explains the contribution this thesis has made, including areas where research gaps were identified, limitations, and recommendations arising from this thesis, including areas for future research. The research aim for this thesis was achieved through answering the research questions providing empirical evidence to support the argument that the management practices influence the translation of HRM policies into practices that support sustainable remote health workforces.

This thesis reports four significant findings:

1) HR outcomes do not significantly influence the achievement of a sustainable remote health workforce (SRHW) without effective management practices (LMX and POS);
2) Management practices (LMX and POS) influence the achievement of a SRHW, where HR outcomes (professional isolation, empowerment, remuneration and work engagement) are present;
3) Occupational commitment may be more influential in improving retention than organisational commitment; and
4) The measure of a SRHW is better represented through Herzberg's motivation-hygiene theory than through job satisfaction and work engagement.

In conclusion, this thesis provides evidence that management practices are crucial for the achievement of sustainable remote health workforces where sustainable workforces contribute to improving access to health services for remote populations. In remote regions where voluntary turnover is high, integrating HRM and health sector research was important for examining the influence of management practices on the translation of HRM policy choices into practices that support the achievement of sustainable remote health workforces.

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Abbreviations

ABS	Australian Bureau of Statistics
AIHW	Australia Institute of Health & Welfare
AMOS	Analysis of Moment Structures
ARIA	Accessibility/Remoteness Index of Australia
CEO	Chief Executive Officer
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
COAG	Council of Australian Governments
DIDO	Drive-in/Drive-out
DON	Director of Nursing
EEO	Equal Employment Opportunity
EFA	Exploratory Factor Analysis
EN	Enrolled Nurse
FIFO	Fly-in/Fly-out
FTE	Full-time Equivalent (proportion of full-time hours)
GP	General Practitioner
HP	Health Professionals
HR	Human Resources
HREC	Human Research Ethics Committee
HRM	Human Resource Management
HRM-SRHW	HRM Framework for sustainable remote health workforces
HWA	Health Workforce Australia
***I*-HRM-SRHW**	Integrated HRM Framework for sustainable remote health workforces
IHW	Indigenous Health Worker
IP	Interview Participants
LMX	Leader-Member Exchange
MMR	Mixed Methods Research
NGOs	Non-government organisations
NT	Northern Territory
NVIVO	NVIVO is not an acronym it is a play on the words ‘in vivo’ (in real life)
OCB	Organizational citizenship behaviour
PCT	Psychological Contract Theory
PNG	Papua New Guinea
POS	Perceived Organisational Support
QHSR	Queensland Health Systems Review

QLD	Queensland
QP	Questionnaire Participants
QUAL	Qualitative
QUAN	Quantitative
RAN	Remote Area Nurse
RANIP	Remote Area Nursing Incentive Package
RAs	Remoteness Areas
RFDS	Royal Flying Doctor Service
RHSC	Rural Health Standing Committee
RM	Registered Midwife
RMSEA	Root Mean-Square Error of Approximation
RNs	registered nurses
RQ	Research Question
SD	Standard Deviation
SET	Social Exchange Theory
SPSS	Statistical Package for the Social Sciences
SCRGSP	Steering Committee for the Review of Government Service Provision
SRHW	Sustainable Remote Health Workforce
TI-HRM	Theoretical Integrated HRM Framework
TLI	Tucker-Lewis index
UWES	Ultrecht Work Engagement Scale
VIF	Variance Inflation Factor
WA	Western Australia
WACHS	Western Australian Country Health Service
WHO	World Health Organisation

A Fence or an Ambulance?

'Twas a dangerous cliff, as they freely confessed,
Though to walk near its crest was so pleasant;
But over its terrible edge there had slipped
A duke, and fall many a peasant;
So the people said something would have to be done,
But their projects did not all tally.
Some said, "Put a fence around the edge of the cliff;"
Some, "An ambulance down in the valley."

But the cry for the ambulance carried the day,
For it spread through the neighboring city,
A fence may be useful or not, it is true,
But each heart became brimful of pity
For those who slipped over that dangerous cliff;
And the dwellers in highway and alley
Gave pounds or gave pence, not to put up a fence,
But an ambulance down in the valley.

Then an old sage remarked, "It's a marvel to me
That people give far more attention
To repairing the results than to stopping the cause,
When they'd much better aim at prevention.
Let us stop at its source all this mischief," cried he.
"Come, neighbors and friends let us rally:
If the cliff we will fence we might almost dispense
With the ambulance down in the valley."

Joseph Malins (1895)

Preface

This thesis is a culmination of my professional Human Resource Management (HRM) experience and my experience working with remote health professionals. When commencing this PhD thesis, I was frequently questioned about my motivation. Health managers asked, *if you are not a remote clinician, why are you doing this?* This prompted reflection about why it was that something that clearly needed further investigation to me, seemed such an unlikely thesis to others. However, it was their additional comments that were more alarming, many said that *nothing had changed in the last 20-30 years, they are still experiencing the same problems out there.* These comments were fundamental to this thesis for the workforce challenges they described were not clinical in nature, they were people management challenges. Through my HRM lens there was clarity in how to approach this thesis with an approach that complemented the work of my clinician colleagues. Before long, they embraced the notion that HRM could contribute, even if only to provide the framework for the metaphorical 'fence' as described by Joseph Malins (1895).

From my HRM perspective, I saw organisations trying to attract suitable applicants, managers pushing organisational boundaries to offer seductive employment packages, implementing creative solutions, flexible work practices and increased benefits and incentives. From my HRM perspective, I saw well-intentioned, but ill-prepared, health professionals eagerly taking on immense challenges, showing resilience and strength in difficult situations, accepting less than ideal physical working conditions and above all compassionate, empathetic professionals who wanted to provide the best health services possible for their remote clients. From my HRM perspective, I saw many people come and go, for a variety of stated reasons. From my HRM perspective, I saw managers responding to these stated reasons with counter offers, less travel, greater access to leave and more financial incentives. However, I knew that 'when solutions to a complex situation seem clear-cut, I can be certain I have not fully understood the problem' (Helen 2008, p.244), so it was time to investigate further using an HRM approach.

My non-clinical HRM perspective offered a deeper understanding to the challenges of remote health workforce sustainability. The rhetoric may have been that 'nothing had changed in 20-30 years', but this did not make it acceptable to do nothing. So I thank everyone who questioned my motives. It was this reflection that consolidated my thoughts about why it was necessary to write this thesis. As an HR professional I sat by the 'company turnstile' welcoming the parade of optimistic, enthusiastic health professionals as they headed off for their remote adventure. Then, I supported and debriefed overwhelmed, disheartened health professionals as they departed. Figuratively, being the 'company concierge', providing for both

management and employee needs, wondering why organisations experiencing high turnover didn't do more to support the health professionals who are already in remote regions.

That curiosity led me to this thesis; it introduced me to the dedicated, yet colourful characters that provide health services to people in remote regions, often in the most difficult of circumstances. It was a privilege to hear their stories and an honour to be entrusted as an 'outsider' with delivering their message about remote health workforce sustainability. In this thesis it is the HRM perspective that I offer; a complementary approach to a well-known issue.

‘Thus, the task is not so much to see what no one yet has seen, but to think what nobody yet has thought about that which everybody sees.’

Arthur Schopenhauer (1788-1860)

Chapter One: Introduction

1.0 Chapter overview

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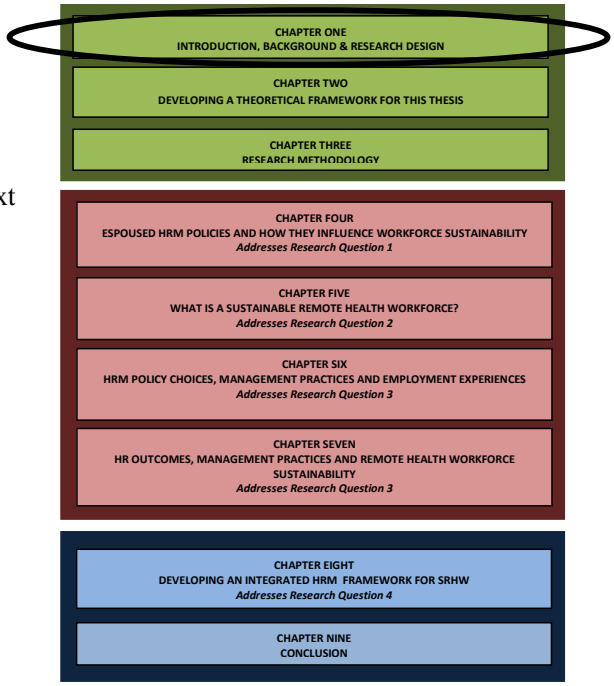


1.0 Chapter overview

This chapter introduces and provides the rationale for the thesis. Once the rationale and research gaps are explained, the chapter describes the background, research aims, research questions and scope of this thesis concluding with a description about how this thesis is structured.

The HRM approach used in this thesis complemented existing health sector research and offered an alternative perspective for examining workforce challenges than has typically been used in the health sector. Thus, the focus of this thesis is the influence of management practices on workforce sustainability. The subsequent chapters examine workforce sustainability using management theories, philosophies and methods congruent with an HRM approach. The context is very important for this thesis. For this reason, this chapter provides a prologue to the remote healthcare setting through an introduction to the Australian health system, health workforces and geographical remoteness, and more particularly, the remote workforce, the remote environment and remote health services.

1.1 Introduction

> *Nurses will give up their anonymity when they go bush. There will be little personal privacy. They will not be able to 'go home' from their job. Home will be just a stroll or short drive from work. People will knock on their door in the middle of the night to seek help. They will be asked to do consults in the supermarket or while socialising. Many will feel they are living their life in a 'fish bowl' ... Many of the challenges associated with remote practice such as those touched on above cannot be avoided. They are part and parcel of remote work. They are not necessarily good or bad – it is just the way it is* (Kelly, 2000).

Health professionals working in Australia's remote regions undertake roles that are diverse and rewarding, yet demanding and stressful. Hence, it is difficult to attract and retain health professionals in these challenging roles in geographically remote regions (Humphreys et al., 2008; McKenzie, 2011). The World Health Organisation (WHO) predicts global health workforce shortages with some regions already experiencing shortages of nurses (Campbell et al., 2013; WHO, 2010). It is well known that turnover in remote regions of Australia is high; however, despite the implementation of flexible models and financial incentives, workforce challenges continue for many organisations endeavouring to provide quality healthcare in remote regions (Chisholm et al., 2011; Garnett et al., 2008; Hunter et al., 2013; Weymouth et al., 2007).

Human Resource Management (HRM) policies offer solutions for workforce challenges particularly with regard to overcoming workforce shortages where retention is central to ensuring 'locally delivered, appropriate and sustainable health services' (Chisholm et al., 2011, p.87). HRM, which is concerned with managing employment relationships, offers a solid evidence-base, including theoretical frameworks, to examine workforce issues (Safdar, 2012). This thesis particularly focuses on the influence of management practices on the translation of HRM policies that support the sustainability of remote health workforces.

1.2 Rationale

> *There are significant challenges facing Australia's health workforce now and into the future, including an ageing population, expected increased demand for health services and increasing expectations for service delivery, changing burden of disease and broader labour market issues (*Health Workforce Australia [HWA], 2012, p.1)

Australians generally experience good health, and as a population have one of the highest life expectancies in the world (Australian Institute of Health and Welfare [AIHW], 2012). One of the strengths of the Australian health system is that it is premised by equitable access for all. The provision of equitable and accessible health services for all Australians is challenging and complicated by the complexity of the political, social, economical and environmental aspects of access to appropriate health services (Australian Health Ministers' Conference, 2004; HWA, 2012).

Accessing health services can be difficult for people living in remote Australia, and this is exacerbated by high turnover of health professionals. Health service providers must balance system requirements, organisational objectives and workforce demands to develop and maintain effective health services. This thesis investigated how managers translate HRM policies into practices that influence the sustainability of remote health workforces. The HRM approach in this thesis complements those currently used in the health domain for analysing remote workforce challenges. The health domain research focuses on health-related competence and the challenges of remoteness generally non-cognisant of the benefits of an HRM approach. Evidence-based HRM theories relevant to the workforce challenges experienced by remote health professionals build on current knowledge supporting more effective management of remote health workforces, so that Australians living in remote regions receive a consistent continuity of care and can experience better health outcomes through access to stable, reliable and sustainable health services (Productivity Commission, 2005).

1.2.1 Research Gaps

Duckett (2007, p.114) reported 'an urgent need to address workforce issues' saying that '[c]reative policy development, underpinned by sound evidence and research, is clearly long overdue.' Some progress has been made and the HRM approach used in this thesis complements the current health domain research, contributing evidence-based research about workforce issues, particularly the influence of management practices on remote health workforce sustainability. Chapter two examines the findings from two literature reviews which identified gaps in the current literature, therefore, offering opportunities to further our understanding in this area through evidence-based research. This thesis sought to address the four known research gaps described below.

Health literature is generally non-cognisant of an HRM approach

The health literature examines the challenges of health service delivery generally non-cognisant of the benefits of an HRM approach. There is a dearth of information investigating remote workforces using HRM theories and concepts which could provide a richer and deeper understanding about the benefits of current incentives, development programs, and reward systems, as they relate to the sustainability of remote health workforces. In remote regions where turnover is high, more research incorporating HRM approaches for current remote health workforces is beneficial (Allan & Ball, 2008; Lehmann, Dieleman & Martineau, 2008). Therefore, the HRM approach used in this thesis examined workforce sustainability through the complementary field of management studies with its evidence-based people and workforce management focus.

Most research investigates turnover through those that have left, rather than retention through those that remain

This thesis contributes to the research in this field by examining the challenges from the perspectives of health professionals who are currently working in remote regions, an area where research gaps have been identified (Onnis & Pryce, 2016; World Health Organisation [WHO], 2010). By focusing on the experiences of those who are currently working in remote northern Australia, this thesis focused more positively on retention, that is, the management practices that are contributing to their retention, rather than examining the negative aspects of the experiences of those that left. Hence, this provides the opportunity for a solutions-based approach to identifying challenges moving away from the deficit approach often used when examining turnover (Gorton, 2015; Wakerman & Humphreys, 2012).

The evidence about the relationship between HRM policies and practices is largely qualitative

Gill and Meyer (2011, p.10) report that there is 'a dearth of empirical research examining the relationship between HRM policies and practices and employee outcomes' and the current evidence is largely qualitative. The mixed methods research methodology of this thesis contributes to the known research gap through the analyses of empirical data using quantitative analysis techniques, as well as qualitative. Therefore, the thesis not only contributes to reducing the deficit of quantitative research evidence, it also utilises the mixed methods research methodology which adds another layer, that is, in the mixing of methods the findings provide more than each method in isolation thus, contributing to the research evidence for a method less frequently used in management research (Cameron, 2011; Johnson et al., 2007).

Few studies cross health disciplines; most are discipline specific (e.g. nursing, medical)

This thesis seeks to identify aspects of workforce sustainability beyond the boundaries of a particular health profession, contributing to the research in an area where research gaps have been identified (Buykx, Humphreys, Wakerman & Pashen, 2010; Onnis & Pryce, 2016; WHO, 2010). The thesis included health professionals from various health professions, including nursing, medical, Indigenous Health Workers (IHWs), allied health and dental. In addition, using an HRM approach to complement the health sector research provides another cross-disciplinary contribution that this thesis adds to the research evidence.

The challenges for health professionals working in remote regions are widely recognised, as are the consequences of poor management practices; however, workforce challenges continue with high turnover reported in some regions. This thesis contributes by providing evidence in areas where there are known research gaps. This is achieved through answering each of the four research questions, which in turn, provide evidence to achieve the research aim.

1.3 Research Aim

The aim of this thesis is to examine the influence of management practices on HRM policy choices that support the sustainability of health workforces in remote tropical northern Australia.

1.3.1 Research Questions

This thesis achieved the research aim by addressing the following research questions:

RQ1: What are the espoused HRM policies and how do they influence remote health workforce sustainability?

RQ2: What is a sustainable remote health workforce?

RQ3: How do HRM policy choices and management practices influence health workforce sustainability for health professionals working in remote regions of northern Australia?

RQ4: How can management practices support the sustainability of remote health workforces?

This thesis has been structured in a manner that addresses each of the research questions and is explained in more detail later in this chapter. The thesis aims to examine the influence of management practices, using an HRM approach, in regard to particular workforces, in a particular geographic region. The next section provides background for this thesis, describing the context in which this thesis is placed.

1.4 Background

> *Longer term innovative ways of delivering health services are needed to provide health care sustainability. Simply providing more doctors, more nurses, more beds and more money is unlikely to be sustainable* (Queensland Health Systems Review, 2005, p.xii).

Global health workforce shortages, economic constraints, ageing populations and projected increased demand for health services suggest that the path to sustainability will require efficient and innovative health service provision, supported by effective HRM policies and practices. In remote regions projections of future health workforce shortages compound the existing challenges of geographic remoteness. Socioeconomic and health inequalities, poor resourcing and extreme climatic conditions make remote regions unattractive to many health professionals (Campbell, McAllister & Eley, 2012; Kowalenko et al., 2003; Margolis, 2012). Providing health services in remote areas is challenging and complicated by a variety of factors including lack of infrastructure, geographic isolation, culture, social determinants of health, fatigue and workforce turnover (Kowalenko et al., 2003; Lehmann et al., 2008; Lenthall et al., 2011; Margolis, 2012; McGrail et al., 2011; McKenzie, 2011; Ohr et al., 2010). Workforce attraction and retention is costly to any business in terms of time, money and lost opportunity; however, the complexity of geographically remote workplaces increases these costs considerably and impacts on the sustainability of the workforce in these regions (McKenzie, 2011).

In Australia, health service providers in remote regions traditionally face challenges in attracting and retaining health professionals (Australian Government Department of Health and

Ageing, 2008; Dolea, Stormont & Braichet, 2010; McGrail et al., 2011). For example, Garnett et al., (2008, p.31) report that the turnover rate for remote area nurses in the Northern Territory 'varied from about 30% to nearly 90% over a three year period from 2003-2005.' McGrail and Humphreys (2015) examining General Practitioner (GP) mobility data from 2008-2012 reported a higher mobility rate for GPs moving from remote regions than moving into remote regions. In responding to these challenges, a variety of flexible service delivery approaches were implemented including fly in/fly out (FIFO) or drive in/drive out (DIDO) service models, a combination of face-to-face interaction and technology-based interactions, outreach or hub and spoke models, agency nurses, international recruitment programs and an increased use of technology through telemedicine (Margolis, 2012; Ohr et al., 2010). Health professionals working in rural and remote settings face unique pressures and are usually required to be competent in a broad range of activities as health services are provided in a variety of ways (Kowalenko et al., 2003). As well as these flexible models there are sole practitioners, eMedicine and community-based models. The salient point is that in order to provide health services in remote regions organisations have implemented a variety of models in an effort to attract the variety of health professionals needed to provide the range of health services required for the remote population to enjoy a level of healthcare comparable to urban dwelling Australians.

1.4.1 Geographical remoteness

Australia is a large continent with a small population. Most of the population live near the coast in cities, a small proportion of the population live in regional areas that are largely urbanised and provide infrastructure and services comparable to cities. However, an even smaller proportion of the population live in remote areas that are not only great distances from cities and regional centres, they have limited access to infrastructure and services that the city and regional populations often take for granted. As there are several ways to determine remoteness, this study uses the Remoteness Areas (RAs) as determined by the Australian Bureau of Statistics (ABS) in the Accessibility Remoteness Index Australia (ARIA) (ABS, 2006). The ABS (2003) developed these categories to establish common terminology for data analysis examining what was often referred to as 'urban', 'rural', 'remote' , 'metropolitan', 'regional', 'the bush' or 'the outback'. They 'concluded that the critical concept was 'remoteness' and that what defines 'city' and 'country' in this context is how far one travels to access infrastructure, thus RAs are measures of 'remoteness of a point based on the physical road distance to the nearest Urban Centre' (Australian Bureau of Statistics [ABS], 2006) p.40). The ABS categorise Australia into five geographic regions: Major cities; Inner Regional; Outer Regional; Remote; and Very Remote (Figure 1.1). Approximately 1% of the Australian population live in very remote and approximately 2% live in remote areas (ABS, 2003).

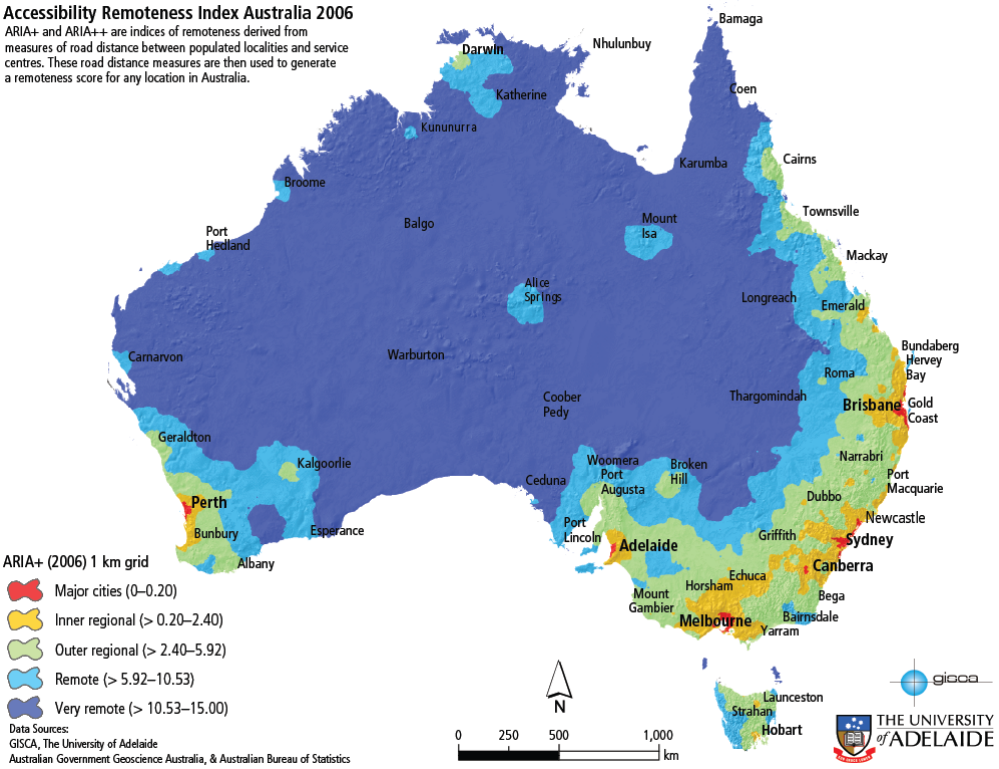


Figure 1.1: Geographical Remoteness: ABS categories (The University of Adelaide, 2012)

This thesis focused on the remote health workforce, that is, those who provide health services in remote and very remote regions of Australia, which were collapsed into one category for this thesis. That is, for this thesis 'remote' encompassed those who worked in both remote and very remote regions as categorised by the RAs defined by the ABS. In particular, this study focused on three regions of tropical northern Australia – Far North and North West Queensland, the Northern Territory's Top End and Western Australia's Kimberley region. These regions have been chosen because they traditionally face challenges in attracting, recruiting and retaining health professionals and offer comparable geographical remoteness and climatic challenges.

1.4.2 Australian Healthcare System

> *In Australia, there is a very strong support for government intervention in ensuring that hospital and medical services are available to all consumers* (Duckett, 2007, p.39).

Relatively speaking Australians enjoy good health and long life expectancies (AIHW, 2012). Consequently, Australia has an ageing population with predicted future healthcare demands that

will far exceed the workforce capacity in terms of workforce numbers and appropriate skill mix (HWA, 2012). While an individual's health status is influenced by genetics, lifestyle and individual choices, it is also influenced by factors beyond the control of the individual such as the physical, socio-economic and family environment (Duckett, 2007).

Australia has a universal health insurance scheme, which provides free or subsidised health services to all Australian residents (AIHW, 2012). Since the introduction of Medibank in 1975 there have been a range of inquiries, reports and changes to the healthcare system, the main one being the change to the current Medicare scheme (Parliament of Australia, 2004). Medicare was introduced in Australia in 1984 to provide a more equitable system of access to healthcare for all Australians. Medicare is aligned to the medical system and subsequently funding is linked to medical professionals. In the 1950s the most frequent form of medical services were provided for acute or episodic illnesses, usually treated by a sole practitioner and unquestionably lead by the medical professional (Australian Government, 2010). In the 21st century the nature of illness has changed and chronic illness is more prevalent, leading to a greater need for team-based interventions and healthcare provided by multi-disciplinary teams, not necessarily lead by the medical profession (Australian Government, 2010). The 'stable and hierarchical relationships of health care provision of fifty years ago are thus being questioned as new professional roles evolve' (Duckett, 2007, p.303).

In 2008, the Commonwealth Government commenced a program of national health reform. Two years later, the National Health and Hospitals Reform Commission Australia implemented, according to Duckett (2007, p.iii), some of 'the most far-reaching structural reforms to the health system since the introduction of Medicare with the establishment of a single National Health and Hospitals Network that is nationally funded and locally run', supporting the national priorities for equitable access to healthcare services for all Australians (Australian Government, 2010). The implementation in 2012 of the Hospital and Health Services nationally, introduced a new structure for the operation of Australia's health system with local hospital boards having more influence over local services. This reform also affected the non-government sector with new players in the health and community service sector and increased competition for funding.

In Australia, the health system is designed to have the flexibility to enable equitable service access; however, this is not always the case. An AIHW report (2012) found that the further people live away from major cities, the less healthy they are likely to be. They also reported that the rate of hospitalised injury cases for residents of *very remote areas* was more than twice that than people who live in major cities (AIHW, 2012). These findings challenge 'the convention wisdom of Australia as an egalitarian society: with life chances so dramatically affected by

occupation and socioeconomic status, it is hard to argue that all Australians are getting a 'fair go'' (Duckett, 2007, p.30). Several studies have found differences between the health of those living in remote Australian and the health of those living in cities, attributing the differences to factors including geographic location, race and socio-economic status (Duckett, 2007; House, 2001; McClelland & Scotton, 1998; Turrell & Mathers, 2000).

Duckett (2007, p.120) reported that a 'key structural choice for organisation design relates to the arrangements for line management' explaining that since 'the early 1970s most health authorities have adopted some form of 'regionalisation'. While the extent of autonomy allowed to regional health managers has varied since then, the recent health reform emphasises the importance of local input and governance of health services. In Australia, health services are provided by government departments, non-government organisations (NGOs), private sole-practitioners, public hospitals, private hospitals, organisations with religious affiliation and/or charitable affiliations, health centres, super-clinics and Aboriginal Community Controlled Health Organisations (ACCHOs) amongst others. The list of what form a health service provider takes is forever evolving. Chapters two and four discuss the health services that are present in remote regions, presenting an overview to provide a basis for the discussion about the challenges this brings for the achievement of sustainable remote health workforces.

1.4.3 The Australian Health Workforce

> *The health workforce is an input into provision of health services and therefore health workforce planning should not simply be concerned with planning the numbers required in each profession but rather should focus on planning the provision of professionals with the mix of skills necessary to ensure adequate provision of services* (Duckett, 2007, p.112).

The health workforce in Australia is diverse and includes a range of occupations, with the two key professions being medical and nursing. The size of the Australian health workforce is increasing. In the five years preceding 2006 'the number of people working in health occupations increased by 22.8%, compared with a 6.6% increase in the Australian population' (AIHW 2012). The increase in workforce during this period reflects the increased need for health professionals with HWA (2012) reporting that the ageing Australian population presents a demographic shift that results in a 'smaller pool of working age people from which we can draw our health workforce and a larger pool of older Australians who will consume larger numbers of health care services' (HWA, 2012, p.14).

Medical

In 2011 there were 68,795 doctors working in Australia; however, they were maldistributed across the continent (HWA, 2012, p.3). The number of working doctors across states and territories generally reflects population size, with the more highly populated states having a higher proportion of working doctors (HWA, 2012). Since 2000, the number of overseas trained doctors has increased with approximately one-quarter of working doctors in Australia having obtained their first medical qualification overseas (HWA, 2012). This increase aligned with the introduction of arrangements to use immigration to address distributional issues, that is, requiring international medical graduates to work in identified areas of need. Medicare data showed 'a higher proportion of overseas trained GPs working in Outer regional (51%) and Remote areas (47%)' (HWA, 2012, p.33).

Nursing

The environment in which nurses work is changing, and nursing roles have, and are, continuing to evolve to match the environment with more complex care provided in the community (HWA, 2012). In 2011, there were 328,817 nurses in Australia (HWA, 2012). Males are underrepresented in the general nursing workforce; however, there are some areas where there are an increased proportion of male nurses, for example, non-clinical areas. That is, that while only 10% of the general nursing workforce is male, 14% of those in nursing management positions are male (HWA, 2012). In addition, migration is important to Australia's nursing workforce, for example in 2009, 16% of registered nurses (RNs) obtained their first qualification in a country other than Australia (HWA, 2012). A mix of skills is necessary to provide adequate health service provision in remote Australia, where there are often shortages of health professionals and long term vacancies for some specialist roles.

1.4.4 The Remote Health Workforce

> *Geographic distribution of the health workforce is a significant issue, and has been recognised for a number of years. The National Health Workforce Strategic Framework provided a set of principles guiding Australia's future health workforce policy and planning, in which an underlying principle was to achieve a health workforce that was distributed to provide equitable health care and outcomes for all Australians, regardless of location* (HWA, 2012, p.19).

The remote health workforce comprises of medical, nursing, allied health and IHWs and forms approximately 2% of the Australian health workforce (Table 1.1). The remote health workforce is a subset of the entire health workforce and faces the same issues of global workforce

shortages with the added challenges of geographical remoteness (WHO, 2010). Although the remote workforce may comprise only a small proportion of health professionals (Table 1.1), they work across a large geographical area, and often work to the full scope of their practice and with limited resources (Bent, 1999; Hegney et al., 2002a; 2002b; 2000c). Consequently, managing health workforces in remote Australia necessitates management practices congruent with their working conditions. Managers may be located in remote regions where they are professionally and geographically isolated; or they may be managing by distance, at times from regional or metropolitan cities hundreds of kilometres away with limited understanding of the context in which remote health professionals work. Both scenarios require management practices that ensure they manage the workforce effectively so that health services remain accessible for remote populations.

Table 1.1: Proportion of health workforce working in remote Australia in 2012 (HWA, 2014)

Health Profession	**Remote** (number employed)	**Australia** (number employed)	**Proportion of workforce in remote regions**
Medical	1435	97,345	1.47%
Nursing	6172	239,758	2.57%
Allied Health	945	92,121	1.03%
Aboriginal & Torres Strait Islander Health Worker	144	348	41.38%
Aboriginal & Torres Strait Islander Health Practitioner	142	233	60.94%
TOTAL	8,838	429,805	2.06%

The motivation behind choosing remote practice and the reasons that influence a health professional's decision to remain in remote practice are varied and diverse. This is discussed further in the literature review in chapter two and in chapters four, six and seven. This thesis explores the influence of managers on attraction, retention, and avoidable turnover to better understand how they influence the sustainability of remote health workforces.

Nationally, there have been some improvements in the ratio of health professionals per 100,000 population. For example, in 2011 in major cities, the ratio rose from 315 to 372 doctors per 100,000 population (HWA, 2012); however, these rates are still considerably lower in remote regions where the ratio rose from 127 to 216 doctors per 100,000 population (HWA, 2012). In contrast, in 2011, the ratio of RNs to population was highest in major cities (1020.7 per 100,000 population) followed closely by very remote areas (1,003.0 per 100,000 population) (Productivity Commission, 2005). These statistics support the rhetoric that people who live in very remote areas are more likely to have their healthcare provided by a nurse.

> *It should be recognised that ratios, while useful for broad comparisons, can mask detailed issues. For example, differences in service delivery models are not accounted for in ratios, and delivery in rural and remote settings can vary significantly to that in urban areas. For example, in a rural and remote area a doctor is more likely to deliver health services across acute, aged care and community settings and across traditionally separate professional disciplines, whereas in an urban setting, people often visit specialists within each setting and/or discipline* (HWA, 2012, p.21).

The workforce in remote areas must be flexible and highly skilled as they are often required to work in multi-disciplinary teams within the full scope of their professional practice. This is quite diffferent to the way that most urban health professionals practice and can lead to further complexities with the remote workforce, particularly around role clarity and role deliniation. (HWA, 2012; Onnis & Pryce, 2016). These challenges are examined in chapter two and chapters four, five, six and seven of this thesis.

1.4.5 Geographic distribution

> *It is widely recognised that the geographic spread of the health workforce does not reflect the distribution of the population. In particular, apart from nurses, the relative number of health professionals diminishes for communities located further away from major centres* (Productivity Commission, 2005, p.13).

The geographic distribution of health professional is inconsistent and for some professions is even more varied than others (HWA, 2012; 2014). In general, the number of health professionals, by occupation, is higher per 100,000 population in capital cities than in remote areas (Table 1.2) (ABS, 2006; HWA 2013; ABS, 2011; AIHW 2011; AIHW 2012; AIHW 2013). This impacts the provision of health services and the way they are delivered to people in rural and remote areas. Changes to data collection methods and the government agencies responsible for analysis meant that not all of the data in Table 1.2 could be reported as a proportion per 100,000; however, it is clear from Table 1.2 that there are inconsistencies in the distribution of health professionals across Australia with lower proportions of health professionals per 100,000 population in all health professions. In contrast, the number of IHWs increases by geographical remoteness; however, the proportion per 100,000 population was not available.

Table 1.2: Distribution by Remoteness Area (ABS, 2006; HWA 2013; ABS, 2011; AIHW 2011; AIHW 2012; AIHW 2013).

Year	Occupation	Major City	Inner Reg-ional	Outer Reg-ional	Remote	Very Remote	Australia
Registered & Enrolled Nurses							
2011	No. per 100,000	1227	1219	1143	1210	1175	1218
All medical clinicians							
2011	No. per 100,000	433.4	269.9	247.2	274.1*		381.4
Dentists							
2011	No. per 100,000	65.1	42.6	33.8	25.0*		57.0
Dental Hygienists							
2011	No. per 100,000	5.8	2.8	2.5	0.8*		4.8
Allied Health Workers							
2006	No. per 100,000	354	256	201	161	64	315
Pharmacists							
2011	No. per 100,000	93.8	72.9	72.2	52.8*		90.0
IHWs							
2006	Headcount	163	146	188	146	318	961

*Remote and Very Remote combined

1.4.6 Improving outcomes in rural and remote areas

> *[S]ome rural and remote communities have very limited access to even basic primary care services. And for those requiring frequent care for chronic conditions, there is also the greater disruption to employment, education and family life that results from regular travel or extended stays away from home* (Productivity Commission, 2005, p.xxvi).

The challenges for equitable access should be considered in context. Most people who live in remote regions are aware of the distance that they live from cities and have realistic expectations about what is possible in the environment in which they live. Travelling great distances, on unmade roads, through extreme weather, unanticipated natural obstacles, are common occurrences for residents of remote Australia. Tales of triumph in adversity will be discussed in the following chapters as well as narratives about the resilience of the people, including health professionals who live in remote Australia. Whether they are romanticised recollections or the down-to-earth reality, they provide evidence about the extent to which health professionals work in extreme and adverse conditions. This said, health is an expensive business and human life priceless. Health service providers must balance this cost equation every day, be it emergency evacuations or providing local sole-practitioner nursing stations. They must decide whether to take the patient to the health service or take the health service to the patient. Economies of scale when working with life and death are complicated. For remote

residents travel to major cities for health treatment can be expensive, traumatic and introduce further challenges for them, their family and local communities. In addition, there are many challenges for health professionals living and/or working in remote regions and for health service providers seeking competent health professionals for regions where recruitment is difficult and turnover high, all of which impact on the continuity of patient care (Productivity Commission, 2005).

1.4.7 Aboriginal and Torres Strait Islander peoples

The author recognises the diverse histories of Australia's Aboriginal and Torres Strait Islander peoples and respectfully refers to them in the thesis as Indigenous peoples (Australian Human Rights Commission, 2016). This does not in any way seek to diminish their respective histories and does not assume in any way that they are one peoples. Nationally, statistics are most commonly reported with this terminology and therefore it is the most sensible way to discuss these findings. Where information pertains to only Aboriginal peoples or Torres Strait Islander peoples the language used in this thesis will reflect this appropriately.

This thesis does not intend to separate Indigenous people or to provide any specific findings that related solely to Indigenous Australians. It is, however, essential to identify that when discussing remote regions of Australia, a large proportion of the people who live in remote regions identify as being of Aboriginal and/or Torres Strait Islander descent. In 2006, 24% of the people living in remote Australia were Indigenous (AIHW, 2013).

1.5 Methodology

This thesis used a pragmatic, mixed methods research methodology which offered a suitable methodology to examine the research questions using both qualitative and quantitative data analysis techniques. Furthermore, it offered a method to integrate both qualitative and quantitative data in a manner that better answered the research questions than either method alone.

The data collection methods included qualitative data from semi-structured interviews; both qualitative and quantitative data from an online questionnaire; and qualitative and quantitative data from recruitment advertising. Chapter Three contains a detailed description of the research methodology, including the research design.

1.6 Ethics Approvals

This study received approval from the James Cook University Human Research Ethics Committee (HREC) (JCU HREC - H5227), the Townsville Hospital & Health Service HREC (HREC113/QTHS /225) and the WA Country Health Service HREC (HREC 2013:31).

1.7 Scope of the study

1.7.1 Geographical study context

This project focuses on three areas of Tropical Northern Australia – the Kimberley (Western Australia (WA)), the Top End (Northern Territory (NT)) and Far North/North West Queensland (Qld). These areas are collectively described as tropical northern Australia in this thesis and can be identified as the area contained within the red circle in Figure 1.2.

Figure 1.2: Tropical Northern Australia – Study Location

Kimberley (Western Australia)

The Kimberley is the most northern region of Western Australia, and includes a geographical area of 421,451 square kilometres (Wood et al., 2012). The region is a long distance from major metropolitan areas, with Broome 2,213 kilometres from Perth by road (Wood et al., 2012). This area has a fairly transient population, which impacts on the utilisation of health services in the region; for example, at the time of the 2006 Census (August), there were an additional 43% of people in the Kimberley region than are usually resident (41,778 people compared with 29,298 residents) (Wood et al., 2012).

Top End (Northern Territory)

The Northern Territory's Top End region covers 487,500 km² extending from Tennant Creek north to Katherine, west to the WA border and east to Arnhem Land, it also includes the islands to the north and those in the Gulf of Carpentaria (Territory Natural Resource Management 2012). The thesis excludes the urban centre of Darwin, classified as Outer regional.

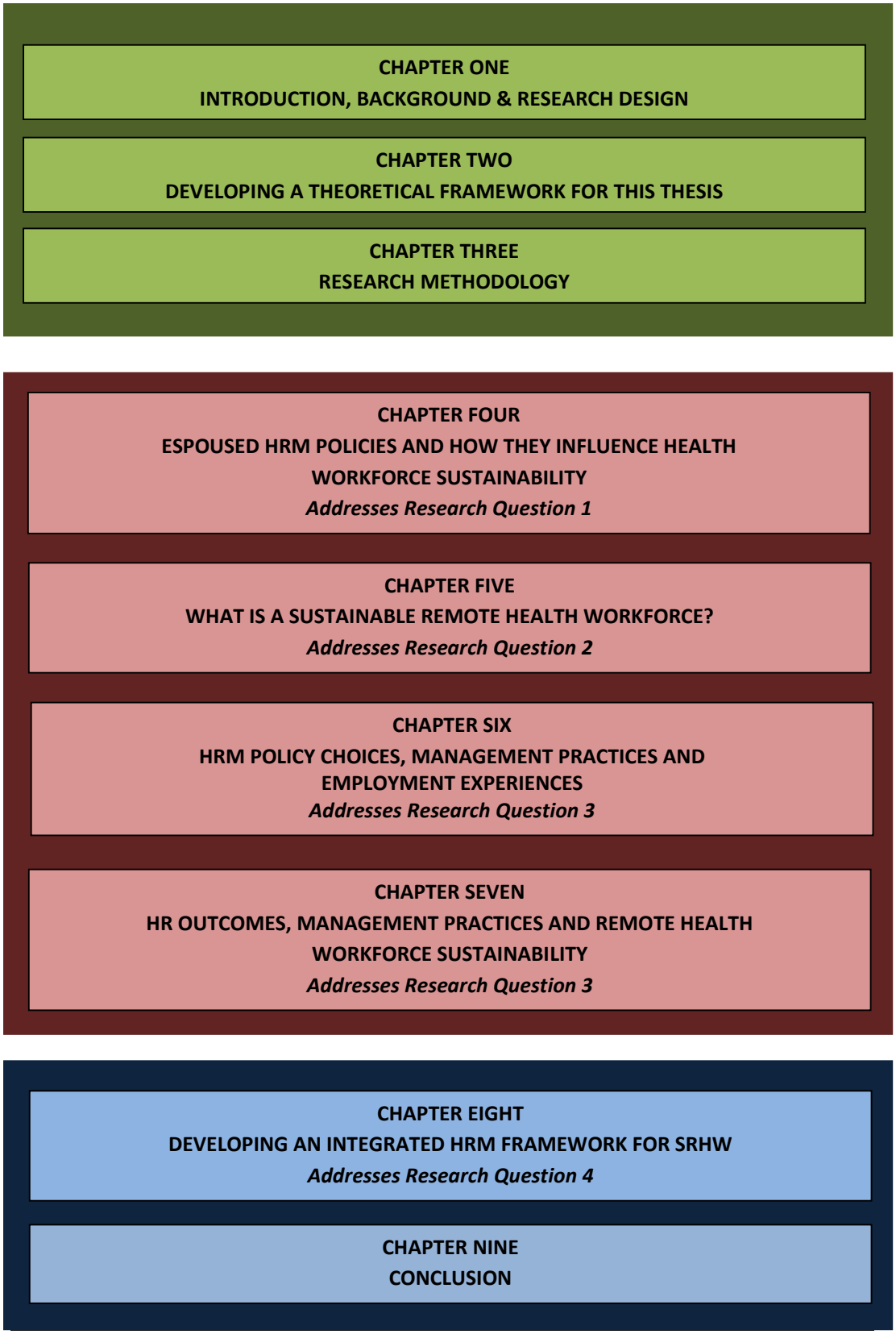
Far North and North West Queensland

Far North Queensland includes the small towns and communities of Cape York which extends from the base of the Gulf of Carpentaria to the Torres Strait in the north and the Coral Sea on the east. The Torres Strait is a body of water extending over approximately 48 000 km², that separates Australia and Papua New Guinea (PNG). It includes more than 100 islands, of which there are 17 inhabited islands (Torres Strait Island Regional Council, 2016). Health services include a small hospital on Thursday Island and health clinics on many of the inhabited islands. Their close proximity to PNG means that provision of health services are extended to PNG nationals residing in the PNG treaty zone (Birks et al., 2010; Queensland Government, 2013).

North West Queensland covers more than 300,000 km² extending from the NT border in the west to the Gulf of Carpentaria in the east. The region includes rural and remote towns, Mornington Island in the Gulf of Carpentaria and the regional centre of Mt Isa. Mt Isa was once a frontier town and has grown into a thriving mining and commercial centre (Queensland Government, 2016)

1.8 Organisation of this thesis

This thesis is organised into nine chapters (Figure 1.3). These nine chapters comprise three sections; the first provides the rationale, theoretical, philosophical and methodological foundations, research aim, and research questions. Together the first three chapters of this thesis describe the *who, where, when, why* and *how* of this thesis. The second section, chapters four, five, six and seven address the research questions (RQ1, RQ2 and RQ3) that this thesis sought to answer. These chapters include content from conference papers and journal articles published during the course of this thesis production. Finally, the third section contains two chapters which together conclude the thesis. Chapter eight is the mixed methods chapter which brings together the findings from the qualitative and quantitative data analyses to answer RQ4. Chapter nine is the conclusion which addresses the research aim and includes the limitations of this thesis and recommendations for further research.


CHAPTER ONE
INTRODUCTION, BACKGROUND & RESEARCH DESIGN
CHAPTER TWO
DEVELOPING A THEORETICAL FRAMEWORK FOR THIS THESIS
CHAPTER THREE
RESEARCH METHODOLOGY
CHAPTER FOUR
ESPOUSED HRM POLICIES AND HOW THEY INFLUENCE HEALTH WORKFORCE SUSTAINABILITY
Addresses Research Question 1
CHAPTER FIVE
WHAT IS A SUSTAINABLE REMOTE HEALTH WORKFORCE?
Addresses Research Question 2
CHAPTER SIX
HRM POLICY CHOICES, MANAGEMENT PRACTICES AND EMPLOYMENT EXPERIENCES
Addresses Research Question 3
CHAPTER SEVEN
HR OUTCOMES, MANAGEMENT PRACTICES AND REMOTE HEALTH WORKFORCE SUSTAINABILITY
Addresses Research Question 3
CHAPTER EIGHT
DEVELOPING AN INTEGRATED HRM FRAMEWORK FOR SRHW
Addresses Research Question 4
CHAPTER NINE
CONCLUSION

Chapter Two: Developing a theoretical framework for this thesis

2.0 Chapter overview

2.1 Declaration: Previously published material

2.2 Introduction

2.3 Health Workforce Challenges in remote Australia: The health domain literature review

- 2.3.1 Introduction
- 2.3.2 Methods
- 2.3.3 Results
- 2.3.4 Discussion
- 2.3.5 Summary of the health domain literature review

2.4 HRM Policies and Practices: The management domain literature review

- 2.4.1 Introduction
- 2.4.2 Methods
- 2.4.3 Results and Discussion
- 2.4.4 Overarching Theoretical Foundation
- 2.4.5 Summary of the management domain literature review

2.5 Emergent Themes and HR Theories: Perspectives Collide

2.6 Conclusion

2.7 Chapter summary

2.0 Chapter overview

This chapter presents two separate but complementary literature reviews. The first reviewed the literature from the health domain using an HRM approach to examine the challenges identified by health professionals working in remote areas. A Conceptual Framework emerged from the health domain literature review. This literature review also examined which factors were common across the whole remote health workforce; and whether there were factors that were unique to working in remote Indigenous communities. The second literature review examined the literature from the management domain using the Harvard Analytical Framework for HRM to guide data analysis. A Theoretical HRM Framework emerged from the management domain literature review. Together the literature reviews provided an overview of the research undertaken in the two domains and using an inductive theory building approach established the foundation on which this thesis builds. Two key theories are identified: Psychological Contract Theory (PCT) and Social Exchange Theory (SET); both of which provide an evidence-base to guide the HRM approach used in this thesis. The chapter concludes with a synthesis of the findings from the two complementary bodies of literature and the introduction of the Theoretical Integrated HRM Framework (TI-HRM) that guided data analysis for this thesis.

2.1 Declaration: Previously published material

Some of the text in section 2.3 is contained in the article entitled, *Health professionals working in remote Australia: a review of the literature*, which was published in Asia Pacific Journal of Human Resources. This is a co-authored paper, please see the 'Statement of Contribution' (p.iv) for further information about the contribution made by the author of this thesis.

2.2 Introduction

> *HRM practices must be developed in order to find the appropriate balance of workforce supply and the ability of those practitioners to practise effectively and efficiently* (Kabene et al., 2006).

Human Resource Management (HRM) in its broadest terms describes the management of people within the boundaries of the employment relationship. HRM has been described as a strategic management approach to obtain competitive advantage (Storey, 1995); a set of strategies and practices to gain commitment and loyalty (Paauwe, 2009); functions that create competence and feelings of belongingness (Thompson, 2011, p.356); and a management approach consisting of 'the policies, practices and systems that influence employees' behaviour, attitudes and performance' (De Cieri et al., 2004, p.596). A more holistic view builds on the work of Beer et al. (1984) who described HRM as the development of all components within an organisational context so that effective managerial behaviour is supported. More recently

contemporary challenges such as globalisation and socialisation of work; the increase of knowledge workers; flexible work practices; and for Australia, the rise in focus on the service industry, contribute to the argument that HRM must be considered relative to time and context (Paauwe, 2009).

HRM provides a sound evidence-base from which to examine workforce challenges relating to attraction, recruitment and retention of remote health professionals (Allan & Ball, 2008). The HRM approach where 'people management' is a focus provides a sound foundation to examine issues confronting remote health professionals. In these circumstances, work and home life interconnect, workers are immersed in new cultures, and social support networks are crucial; all signifying that HRM has much to offer. Benefits of using an HRM approach stem from its history of empirical evidence while maintaining currency in contemporary workplaces through continued validation, within and across industries, cultures, international and multi-national contexts (Syed & Jamal, 2012; Watson, 2004; Wright & Kehoe, 2008).

This chapter presents two separate but complementary literature reviews. The first reviewed the literature from the health domain using an HRM approach to examine the challenges identified by health professionals working in remote areas. The aim was to examine what was already known on the topic and to subsequently identify the emergent themes in the health domain literature. Additionally, this review sought to determine which factors were common across the whole remote health workforce; and whether there were factors that were unique to working in remote Indigenous communities. The second reviewed the literature from the management domain using the Harvard Analytical Framework for HRM and sought to develop an integrated theoretical HRM Framework suitable to guide data analysis for this thesis. The analysis of this literature provided an overview of the research undertaken in the two domains creating the foundation from which this thesis builds. The Conceptual Framework that emerged from the health domain literature; and the Theoretical HRM Framework that emerged from the management domain literature were each representative of the key themes from each individual literature review. This thesis sought to synthesise the findings from the two complementary bodies of literature. It was through the synthesis of the findings from each literature review that an integrated theoretical HRM Framework to guide this thesis was developed.

This chapter is structured such that the first section presents the analysis of the health domain literature and provides the view of health professionals on the challenges of working in remote regions, retention and turnover. The next section presents the analysis of the management literature, using an inductive theory building approach, examination of the relevant HRM theories informed the development of the theoretical HRM framework. The final section

synthesises the findings from each literature review, culminating in the development of an integrated theoretical HRM framework that combines the findings from each literature review in a meaningful way for this thesis.

2.3 Health Workforce Challenges in remote Australia: The health domain literature review

> *Nurses will give up their anonymity when they go bush. There will be little personal privacy. They will not be able to 'go home' from their job. Home will be just a stroll or short drive from work. People will knock on their door in the middle of the night to seek help. They will be asked to do consults in the supermarket or while socialising. Many will feel they are living their life in a 'fish bowl' ... Many of the challenges associated with remote practice such as those touched on above cannot be avoided. They are part and parcel of remote work. They are not necessarily good or bad – it is just the way it is* (Kelly, 2000).

2.3.1 Introduction

This section reviewed the health domain literature which included the health professional's perspective of working in a remote region. The data synthesis, beyond the reported findings from each study, revealed associations and further meaning (Thomas & Harden, 2007). The aim was to examine what was already known on the topic, and to identify themes that emerged from the synthesis to determine: 1) which factors are common across the whole remote health workforce; and 2) whether there are factors that are unique to working in remote Indigenous communities that need further consideration. This section presents the emergent themes in a conceptual framework enabling further analysis using HRM theories. Using HRM theories, it is possible to consider these challenges in terms of employment relationships and management practice rather than only as consequences of remoteness or nuances of the health industry.

This section is structured such that the literature reviewed from the health domain is analysed to identify emergent themes, presented in the results section. Subsequently, the discussion section introduces applicable HRM theories and acts as a conduit between the two academic fields of inquiry. The conceptual framework and HRM theoretical foundation for the discussion contributes to the aim of this literature review to not only examine what is known of the topic but also which factors are common across the whole remote health workforce; and, to ascertain whether there are factors that are unique to working in remote Indigenous communities.

2.3.2 Methods

A review of the literature was conducted using databases including: informit, CINAHL, EBSOHost, OvidSP, OvidMP, PubMED, ProQuest and the Wiley online library. The search used the following terms in various combinations: 'remote', 'Australia', 'recruitment', 'workforce', 'turnover', 'Australia, 'health', 'work', 'nurse', 'doctor', 'outreach', 'Indigenous', 'FIFO', and 'rural'. These searches identified 414 matches. Abstracts were reviewed against inclusion criteria to filter the material further.

Selecting and reviewing the literature

The following inclusion criteria were used to select articles:

1. Published: 1993-2013.
2. Peer-reviewed.
3. Included information that could be categorised as working experience in a remote area using the Accessibility/Remoteness Index of Australia (ARIA) (ABS 2006).
4. Included feedback from people who had actually worked in a remote Indigenous community.

The literature was reviewed and selected for one of two categories depending on whether it contained feedback from health professionals working in an Indigenous community or a remote region in general. Abstracts from 414 matches were reviewed using all the criteria and 35 were selected for further review. The full articles for these 35 and a further six, sourced through their references, were reviewed against all the criteria. This method identified 12 articles that met all the inclusion criteria and best represented individuals working in a remote Indigenous community. This category is referred to as the 'Indigenous Community' articles.

Once again abstracts from the initial 414 matches were reviewed, this time using only criteria 1-3. The full article for the resultant 48 matches and a further three sourced from their references, were selected for further review. The 12 previously selected articles were removed, leaving eight articles that best represented those working in a remote region. This category is referred to as the 'Remote Region' articles. Figure 2.1 further illustrates the literature selection process.

Data cleansing

Two articles were initially categorised as 'Remote Region' were reclassified as 'Indigenous Community' after the first analysis (Figure 2.1). In addition, one article (Campion et al., 2007) met all of the criteria and was used for the thematic analysis. It was later removed because while it met the inclusion criteria, it was not experience reported by health professionals; rather, it was based on feedback from other remote professionals about the role of health professionals.

The themes were reviewed to ensure that the reclassification of two articles and the removal of one article did not influence the themes identified for the literature review. The data cleansing did not influence the themes. Hence, nineteen articles were selected for the literature review.

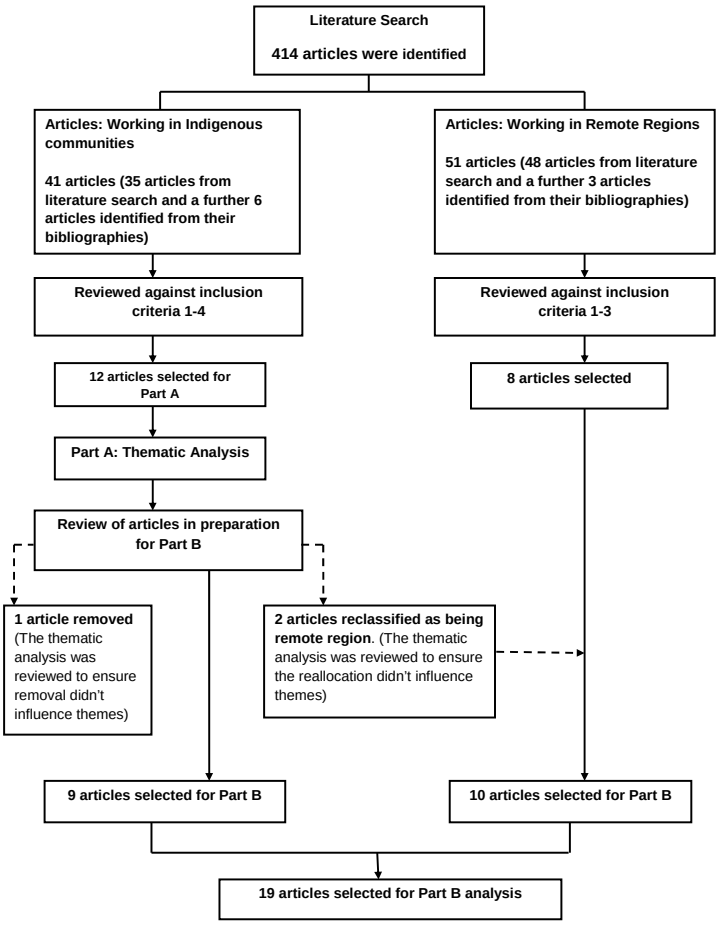


Figure 2.1: Selection process for literature included in the review

Thematic analysis

A thematic analysis identified key themes (professional, personal, organisational and contextual). Emergent themes were reviewed and discussed with other researchers, and upon consensus, overarching descriptive themes and sub-themes were identified and consolidated (Part A). In order to confirm the themes, NVIVO10 was used for subsequent analysis (Part B).

The 19 articles were classified by geographical work location – remote Indigenous community or remote region. The themes from the first thematic analysis (Part A) were used to create nodes in NVIVO10. All articles were then coded into these nodes. The coded NVIVO10 nodes were reviewed to ensure that the coding consistently matched the factors listed in the original subcategories. A few changes to theme names were made to ensure consistency. From 1017 coded data points, only 45 were re-coded (0.045%) suggesting that the final coding and the original coding were fairly consistent.

Table 2.1: Summary of the literature reviewed, including associated themes and subthemes.

	Author (Year)	Study Design/Methods (Sample Size)	Themes and subthemes									
			Personal			Professional			Organisational		Contextual	
			CBE	F&F	H&L	Role	Dev.	Sup.	Mgt.	I&B	RTE	RC
1	Battye, K., & McTaggart, K. (2003)	Interviews (n=12)				◆	◆	◆	◆	◆	◆	◆
2	Bent, A. (1999)	Interviews (n=17)	◆	◆	◆	◆	◆	◆		◆	◆	◆
3	Birks, M., et al. (2010)	Interviews; focus groups (n=35)			◆	◆	◆	◆	◆	◆		◆
4	Carey, T. (2013)	Interviews (n=21)	◆		◆	◆		◆	◆	◆	◆	◆
5	Devine, S (2006)	Interviews (n=12)	◆		◆	◆	◆	◆	◆		◆	◆
6	Gardiner, M., Sexton, R., Durbridge, M., & Garrard, K. (2005)	Questionnaire (n=187)	◆	◆	◆	◆	◆		◆			◆
7	Greenwood, G., & Cheers, B. (2002)	Interviews (n=18)	◆	◆	◆	◆		◆	◆		◆	◆
8	Hays, R., Wynd, S., Veitch, C., & Crossland, L. (2003)	Interviews (n=13)	◆	◆	◆	◆		◆	◆	◆		◆
9	Heyney, D., et al. (2002a)	Questionnaire (n=146)	◆	◆	◆	◆	◆	◆	◆	◆		
10	Heyney, D., et al. (2002b)	Questionnaire (n=146)	◆	◆	◆	◆	◆	◆				
11	Heyney, D., et al. (2002c)	Questionnaire (n=146)	◆	◆	◆	◆	◆	◆	◆	◆		
12	Humphreys, J., Jones, M., Jones, J., & Mara, P. (2002)	Questionnaire (n=677)	◆	◆	◆	◆	◆	◆		◆		◆
13	Kent-Wilkinson, A., et al (2010)	Clinical practicum (n=4)	◆	◆	◆		◆				◆	◆
14	Kruger, E., & Tennant, M. (2005)	Questionnaires (n=90)	◆	◆	◆	◆	◆	◆		◆		
15	Lenthall, S., et al (2011)	Four data sources including a national survey (n=349)			◆	◆	◆	◆				
16	Opie, T., et al (2011)	Questionnaire (n=349)	◆	◆	◆	◆		◆	◆			
17	O'Toole, K., & Schoo, A. (2010)	Online survey (n=72)	◆	◆			◆		◆	◆		◆
18	Santhanam, R., et al (2006)	Participatory Action Research			◆	◆		◆	◆	◆	◆	
19	Wakerman, J., et al (2009)	Interviews (n=55)		◆	◆	◆	◆	◆	◆	◆		

CBE: Characteristics, Background and Experience; F&F: Friends and Family; H&L: Health and Lifestyle; Dev: Development; Sup: Support; Mgt: Management; I&B: Incentive and Benefits; RTE: Responsive To Environment; RC: Remote Considerations

NVIVO10 Analysis

The key themes (professional, personal, organisational and contextual) guided analysis of the articles using NVIVO10. Word frequency analysis was undertaken to provide comparison of the language used in each category of article. Matrix code analysis enabled comparative analysis of the frequency of subthemes for each category of article within the overarching themes. These deductive analysis techniques promoted development of the more theory driven analytical themes that informed the questions for the literature review (Thomas & Harden, 2007). While these analytical techniques are still being refined, these methodologies are being presented as conducive to synthesis reviews that move beyond the primary study (Atkins et al., 2008; Thomas & Harden, 2007). The benefit for this literature synthesis was that by going beyond reported themes from the primary studies, the literature synthesis could better inform the questions being asked of the synthesised data (Thomas & Harden, 2007).

2.3.3 Results

Word frequencies

NVIVO10 word frequency queries for the two classifications of articles found that the most frequently used words were similar for literature describing working in 'remote regions' and the literature describing working in 'Indigenous communities'. The ten most frequently used words for the 'Remote Region' articles ranked within the twelve most frequently used words for the 'Indigenous Community' articles (Table 2.2). Furthermore, eight words from each category were found in the ten most frequent words from the other category.

Table 2.2: Most frequently used words for each category selected for literature review.

Frequency†	Remote Region	Indigenous Community
1	Rural(5)‡	Health(3)
2	Nursing(6)	Servicing(11)
3	Health(1)	Community(10)
4	Remote(4)	Remoteness(4)
5	Working(7)	Rurality(1)
6	Practicing(10)	Nursing(2)
7	Areas(8)	Works(5)
8	Professional(11)	Area(7)
9	Support(12)	Care(21)
10	Community(3)	Practices(6)

†1 = most frequent

‡ Number in brackets indicates position of this word for other classification. For example, in the *Remote Region* column 'rural'(5) means it was the fifth most frequently used word in the coded data from the *Indigenous Community* articles. Similarly, in the *Indigenous Community* column 'rurality'(1) means it was the most frequently used word in the coded data from the *Remote Region* articles.

Matrix code analysis

The data were further analysed using matrix code analysis. Using NVIVO, analysis of the frequency for each classification was compared by subtheme. For example, the frequency of coding for the subtheme 'remote considerations' was approximately the same for both classifications whereas the frequency of coding for the subtheme 'management' was more frequently mentioned in articles classified as 'Indigenous community'. Differences in frequency were attributed to differences in the style and purpose of the article, and an uneven number of articles in each category and were not interpreted further. However, the spread of coding across all subthemes suggested that the subthemes were common across remote locations including those working in remote Indigenous communities. All themes received numerous coded data points for all subthemes so the relevance of all subthemes to working in both locations was confirmed and interpretation of the findings continued.

Themes

The overriding emergent themes were: Personal, Professional, Organisational and Contextual. These themes were identified through analysis of the factors identified in the literature review and were synthesised to develop the conceptual framework. The impact of these factors on the remote health workforce is examined later in this chapter. A more detailed explanation of each factor is presented in Appendix A, together with an explanation of the factors including why they were selected for each theme and their impact on turnover and retention for remote health professionals. These factors were consistently reported by health professionals across rural and remote settings, and remote Indigenous communities.

Regional similarities and differences

The review of the literature initially identified that the main factors that were associated with working in Indigenous communities were in relation to culture, Indigenous health, geographical distance and community. However, the synthesis of the literature suggests these factors are common in the working experiences of both health professionals in remote regions and those health professionals in remote Indigenous Communities. The factors presented above, when coded, were found in articles written about working experiences in rural and remote areas as well as remote Indigenous communities. For this reason they were coded as contextual factors, that is, they need to be considered in the context in which the health professional is working. For example, one of the factors associated with Indigenous communities was 'cultural' implying that there are factors associated with working with an Indigenous culture that impact on the role of health professionals (Battye & McTaggart, 2003; Kent-Wilkinson et al., 2010; Santhanam et al., 2006). This is not disputed; however, it can be considered under the theme

'responsive to environment' acknowledging that while there are specific considerations associated with this factor, Indigenous people live in rural and remote towns and regional centres as well. These cultural factors would also need to be addressed in these locations, suggesting that this factor is about being responsive to the sociological environment (the client's cultural needs) as opposed to being specifically related to a remote Indigenous community. Similarly, for those who identified that the desire to work with Aboriginal people was a factor that influenced their decision-making, opportunities exist in rural and remote areas as well as Aboriginal communities so this was coded as a 'remote consideration'.

Geographic distance was also coded as a 'remote consideration' given that some remote towns are more geographically isolated than some Indigenous communities. Finally, 'community' was coded to 'responsive to environment' (Carey, 2013; Devine, 2006; Greenwood & Cheers, 2002; Santhanam et al., 2006). It is accepted that Indigenous communities provide unique experiences and challenges for health professionals (Santhanam et al., 2006); however, remote towns and regional centres also provide unique community experiences and challenges (Hays et al., 2003). The literature did not provide information to suggest that this could not be captured in being 'responsive to environment' particularly given the overlap with the 'Personal' theme.

Some articles did not distinguish between rural and remote findings (Hegney, 2002b, Kent-Wilson et al., 2010; Wakerman et al., 2009). Similarly, while some studies defined remoteness (Hegney et al., 2002a) many did not provide sufficient information to determine whether the findings where specific to either region. Devine (2006) reported findings from a rural study similar to those reported in the rural and/or remote studies. Wakerman et al. (2009) and Bent (1999) discuss differences between the city and the rural and remote regions. While the factors identified are applicable to those working in remote regions and Indigenous communities, the findings for this synthesis suggest that the rural and remote experience is significantly different than working in a city and subsequently 'retention strategies developed for a metropolitan area will not necessarily be applicable to rural and remote areas' (Hegney et al., 2002a, p.34).

The contextual theme captured factors that may affect health professionals differently depending on whether they were permanent residents or visitors to the area. The reviewed literature highlighted factors related to living and working in remote regions that promoted attraction and improved retention of health professionals (Hays et al., 2003; Heyney et al., 2002a, 2002b) as well as barriers for resident health professionals (Birks et al., 2010). However, there was no clearly identified distinction between the views of permanent resident health professionals from the region and those who moved to the region, be they visiting (e.g. FIFO) or temporarily living in the remote region.

Nevertheless, the similarity of the most frequently used words suggests that the themes adequately capture differences and similarities, and provide insight into areas where further research should be focused. This synthesis suggests that the factors that impact health professionals working within remote regions and remote Indigenous communities are more similar than they are different and that they are not sufficiently different to be analysed separately. Therefore, the findings will be discussed in the next section using all of the selected literature and the themes identified through the thematic analysis.

2.3.4 Discussion

The literature review and subsequent synthesis of the findings from selected articles identified four themes common to all health professionals working in remote Australia: Personal, Professional, Organisational and Contextual. The interrelatedness of these themes resulted in an overlap which is captured in the conceptual framework (Figure 2.2).

Conceptual Framework

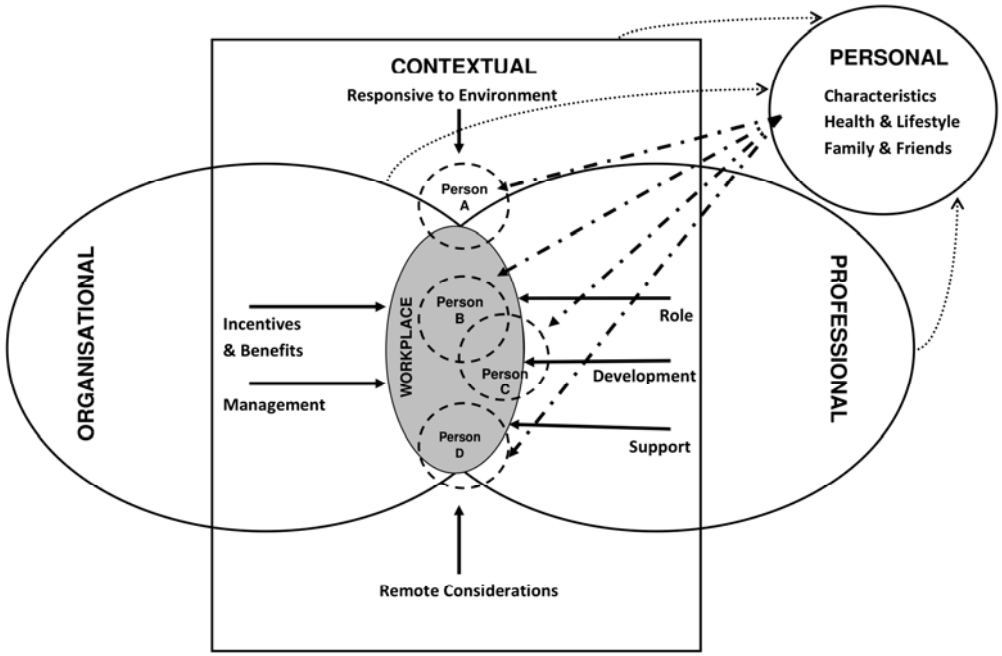
In the conceptual framework the central area where Contextual, Organisational and Professional factors intersect is 'the Workplace', i.e. the space where the work-role is performed. The outer rectangle represents the 'Contextual Environment'; this includes geographical, physical, cultural, social and political environments and the way in which these environments impact on health professionals. The organisation and the profession have been separated and are represented by two intersecting circles. This separation reflects the distinction between health professionals from different disciplines working within their professional parameters (Professional), and the policies and systems that impact on the way health professionals work (Organisational). The separation of professional and organisational factors is important for health professionals who must navigate organisational and professional demands and obligations in the remote context.

The themes are consistent with those identified by other workforce retention studies (Cameron et al., 2012; WHO, 2010). However, when the Human Resource Management (HRM) lens is used to examine the literature there is increased consideration of the employee and the role they play which is not as evident in many of the studies from the health domain where the focus is on service delivery and people are considered resources rather than assets. The HRM approach enables us to consider the person and their personal characteristics and their relationship with the other factors, that is, their relationship with the organisation, their professional attributes and their interaction with the environment in the context of the role they are performing. This is illustrated in Figure 2.2 and explained further below.

Figure 2.2 shows that in remote regions, health professionals enter workplaces where their individual set of characteristics (Personal), together with contextual and professional experience, and their perception of the organisation, from previous work experience or preconceived ideas (Organisational), influences employment experiences and ultimately how long they remain in remote workplaces. Personal characteristics are unique to each health professional so person-fit/community-fit will be individual as illustrated (dotted circle). The four dotted circles represent examples of the way individual health professionals could work in remote regions. Four circles have been used to present these examples, but the person-fit is as unique as each health professional, so the possibilities are infinite.

Further theoretical support for the conceptual framework is gained from the Person-Environment-Occupation Model (Law et al., 1996). This model uses a transactional approach and recognises that work performance is a product of dynamic, interconnected relationships between people, their professional role and the environment in which they work and live (Law et al., 1996). The Person-Environment-Occupation Model depicts relationships between these factors, using three circles and a segmented cylinder, to depict the dynamic changes to this relationship over the person's lifespan (Law et al., 1996). This research supports the conceptual framework (Figure 2.2) in terms of relationships and interconnectivity. They both include the impact of environment and personal characteristics on workplace experiences.

Similarly, other theoretical frameworks supported the themes and relationships described in Figure 2.2. For example, Buykx et al. (2010) suggested a workforce retention framework with components which included: staffing; infrastructure; remuneration; workplace organisation; professional environment and social support. In terms of service provision, Wakerman et al. (2009) offered a conceptual framework for remote primary healthcare with five essential service requirements: governance, management and leadership; funding; linkages; infrastructure; workforce supply. These studies had different objectives, so some variation to themes is expected. It was, however, common for models to contain a component about personal characteristics or social support (Personal); management, leadership or governance (Organisational); professional needs and support (Professional); and the physical, financial and political environment (Contextual), further supporting the conceptual framework proposed in this thesis.



Person A: A health professional that fulfils their work-role but largely outside their workplace, they are active in the community, provide professional expertise outside of their work role and participate in organisational activities outside the workplace. For example, an Indigenous Health Worker who lives in the local community provides supervision for health workers in other communities and often supports their family and friends using knowledge gained as a health worker.
Person B: A health professional who undertakes their role, completing their work within their workplace. For example, an agency nurse working for a short period.
Person C: A health professional who undertakes their work role within the organisation and also provides professional skills and expertise beyond the work role. For example a fly-in, fly-out psychologist who provides some psychological support to others who work in the community (e.g. teachers, police) external to their organisation and beyond the scope of their work role.
Person D: A health professional who works mainly within their workplace but touches areas external to their work role, even if only slightly. For example, a social worker who provides family support within their work role, helps set up the outside undercover area behind the clinic for the men's group, helps out at the art centre supervising the children's painting workshop and supports a local group who run a regular workshop in the wellbeing centre for young mothers. All of which are just beyond the scope of their work role and workplace.

Figure 2.2: A Conceptual Framework of the impact of emergent themes for health professionals working in remote Australia.

From themes to theory

The conceptual framework (Figure 2.2) separates personal, professional, organisational and environmental aspects for reasons outlined previously; however, further consideration of the themes and their impact on the remote health workforce is necessary. Here, taking an HRM approach can lend some insights into challenges faced in managing health professionals in remote regions.

Findings from this review suggest that reasons, while varied, are similar for health professionals working in remote regions regardless of whether it is a remote town or an Indigenous community. It is most likely that these results reflect that geographic isolation is less prevalent and that Indigenous people live in rural and remote towns as well as discrete communities. For example, upgraded roads and airstrips improve access to remote regions, with fewer communities experiencing complete geographic isolation for extended periods. Furthermore, kinship and community are integral for Indigenous people and are therefore, part of their being regardless of whether they live in an Indigenous community or a remote town (Thompson et al., 2000). Hence, the challenges for health professionals working with Indigenous clients exist regardless of geographic location.

The findings suggest that the reasons that influence a health professional's decision to remain or leave are not only diverse, they are inconsistent, that is, one health professional's reason for leaving may be another one's reason for staying. The attraction to working in remote regions is varied (Hegney et al., 2002b; McGrail et al., 2011) and regardless of whether the health professional is intrinsicly or extrinsicly motivated, expectations about both the professional role and organisation influence job satisfaction and ultimately turnover (Knights & Kennedy, 2005).

A person's behaviour is influenced by the environment where they live and work (Law et al., 1996). The literature reviewed reported that working in remote locations is different to working in urban environments (Bent, 1999; Hegney et al., 2002a; Wakerman, 2009). Consequently, managing health professionals who work in remote regions may require a different approach. The literature revealed many unique aspects of remote work and what stands out: beyond geography, culture, and climate, is the sense that health professionals seem to accept the context and environment as challenges; however, they report frustration with systems and workplaces that do not support them personally and professionally (Hegney, 2002a; Battye & McTaggart, 2003). In remote regions where work and personal lives co-exist, their relationship with their immediate line manager may be critical to the professional relationship. In remote regions, health professionals may be community-based or visiting services. Regardless of type, there is a need to foster the employee-employer relationship. For community-based health professionals,

heightened sensitivities often emerge from living and working in close proximity, in isolated areas, for extended periods of time. In contrast, for visiting services, the nature of their work and infrequent contact with their employer, due to frequent travel, increases the importance of effective employee-employer relationships.

HRM can benefit remote workforces in many ways, especially by offering evidence-based theories and frameworks that can guide and inform many aspects of workforce management. This is not limited to recruitment practices but extends to personal and professional support, people management, conflict resolution and workplace negotiations amongst other functions that will positively impact workplace culture, morale and operational functioning (Rosete 2006). In remote regions, where social isolation is reported, socialisation into the organisation may be especially important. Another study, investigating the role of personality and retention in rural areas, found statistically significant independent associations between location and personal characteristics (Jones et al., 2012). This suggests that recruitment, selection and retention strategies can play an important role in improving retention (Morell et al., 2014).

HRM theories provide evidence for understanding employees' attachment to organisations. For example, social-identity theory which is described by Tajfel (1974, p.69) 'as that part of an individual's self-concept which derives from his knowledge of his membership of a social group (or groups) together with the emotional significance attached to that membership'. This suggests that people identify with organisations in ways that satisfy their individual needs and own self-concept and indicates that the way in which organisations are perceived may influence workforce attraction (Alvesson, 2013; Highhouse et al., 2007; Tajfel, 1974). In remote regions organisations can be small local enterprises, branches of larger organisations that operate with some independence, or representatives from large units from even larger government departments. Highhouse et al., (2007) suggests that attraction to symbolic features of organisations, or their perceived status, facilitate prospective employees' ability to communicate to others how they would like to be perceived. This was evident in the literature review, where some private service providers felt they were perceived to be more financially secure than practitioners working in the public sector (O'Toole & Schoo, 2010).

Research in the field of attitudes may also contribute to our understanding of attraction to working in remote regions. High commitment HRM practices shape employee attitudes through psychological links between the organisation and the employee (Gould-Williams & Davies, 2005). These psychological links or psychological contracts are derived from an employee's beliefs about the obligations of their employer (Knights & Kennedy, 2005). Being an unwritten contract, individual to each employee, it is derived from their understanding of the employment

relationship and the implied obligations (Knights & Kennedy, 2005). The perceived breach of the psychological contract can promote feelings of dissatisfaction and psychological contract violation can lead to destructive behaviour and/or resignation (Knights & Kennedy, 2005; Maertz & Boyar, 2012). It is reasonable to contend that in the context of health professionals working in remote regions, where their expectations of the role and organisation are often developed from outside the remote region (e.g. opportunity for adventure, access to professional development and additional leave), the notion of a psychological contract and its implications can be more pronounced. In contrast, where employees perceive the benefits as being beyond those typically offered by most organisations 'employees feel obligated to reciprocate in ways such as positive work attitudes' (Ko & Hur, 2014, p.183) and reduced turnover (Knights & Kennedy, 2005).

This may also account, in some part, for the contradictory nature of factors identified through the literature review. For example, lifestyle, health, family and friends were identified as factors contributing to retention and turnover (Campbell et al., 2012). Similarly, factors such as tired and exhausted were identified in studies where job satisfaction was high (Opie et al., 2011, p.201). Furthermore, Herzberg's motivation-hygiene theory where extrinsic incentives are believed to prevent dissatisfaction and intrinsic incentives are believed to promote job satisfaction (Campbell, et al., 2012); and Expectancy Theory which is the probability an employee assigns to the amount of effort required to achieve a specific work-related outcome (Wood et. al., 2010) further help us to understand the motivation behind workforce stability, retention, intention to leave and turnover.

Analysis using HRM evidence-based theory on organisational commitment, occupational commitment, and organisational citizenship behaviour could all contribute to our understanding of the high turnover experienced in remote regions (Iverson, 1999; Knights & Kennedy, 2005). Similarly, HRM practices that provide clarity for employees such as job design and role clarity (Giancola, 2011; Thompson, 2011); together with those practices that support professional development such as career planning, succession planning and mentoring (Thompson, 2011) could assist further examination of the challenges associated with retention of remote health workforces. Contemporary management theories such as the new mobilities paradigm where improvements in technology, changes in society and employment patterns support the development of a more mobile workforce (Sheller & Urry, 2004) are indicative of the factors that will continue to impact workforce sustainability in general, and may have a more substantial impact on remote areas already experiencing high turnover.

Many of the themes identified in this literature review fall within the domain of effective management capabilities, encompassed under the broader term 'HRM'. Allan and Ball (2008) proposed that if HRM knowledge was applied to the issue, the remote health workforce would be better understood. The HRM approach can offer a complementary method for investigating the challenges for remote health professionals, moving beyond attraction and retention incentives to workforce management practices.

2.3.5 Summary: Health domain literature review

This section reviewed the health domain literature and found that the challenges and rewards are similar for health professionals who live and work in remote Indigenous communities and those who live and work in rural and remote regions. Aiming to also examine what was known on this topic; analysis identified four themes and related subthemes, which were presented here as a conceptual framework. The proposed conceptual framework will guide further investigation building on findings from previous research. The next section analyses the findings from the management domain literature review.

2.4 HRM Policies and Practices: The management domain literature review

This section builds on the analysis of the literature of the health domain through a review of the literature in the management domain. The aim of the review of the management literature was to identify: 1) what is already known on the topic; 2) the extant HRM constructs that could inform the research questions; 3) which management theories could assist data analysis; and finally, 4) to develop a theoretical HRM framework to guide data analysis for this thesis.

2.4.1 Introduction

> *While there is 'no single agreed, or fixed, list of HR practices or systems of practices that are used to define or measure human resource management' the main objective is to recruit strong candidates and to provide them with 'the skills and confidence to work effectively, monitor their progress towards the required performance targets, and reward staff well for meeting or exceeding them* (Paauwe, 2009, p.137).

This thesis used an HRM approach to investigate the ways that organisations translate HRM policies into practices in remote regions. In so doing, it explored various HRM frameworks with a view to identifying one that would best afford elements for examination of management of the workforce with health services in remote regions, especially in relation to addressing the endemic issues of turnover and retention for the remote health workforce. The initial review of the HRM literature identified several potential frameworks and models. Those considered

included Guest's *Theory of SHRM*, the *Strategic Model of HRM*, *A Contextual Model of SHRM for Organisational Sustainability*, and the *Warwick Model of Strategic Change and Human Resource Management* and *The Harvard Analytical Framework for HRM* (Beer et al., 1984; Dubois & Dubois, 2012; Hendry & Pettigrew, 1992; Nankervis et al., 2002). Further review and discussion with academics lead to the selection of the *Harvard Analytical Framework for HRM* as the most appropriate framework for this thesis (Figure 2.3). The Harvard Analytical Framework for HRM could guide data collection, analysis and interpretation for this thesis enabling the research questions (RQ) to be addressed (Figure 2.3). The Harvard Analytical Framework for HRM and its suitability for this thesis are discussed further below.

The Harvard Analytical Framework for HRM

The Harvard Analytical Framework for HRM was premised on the view that if senior management developed a strategy that focused on developing employees and involving them in the business 'some of the criticisms of historical personnel management could be overcome' (Safdar, 2012, p.9). The resultant framework represents the circularity of HRM policy choices, with a central argument that the 'long-term consequences of HRM policies for individual well-being, organizational effectiveness and societal well-being will affect those policies and the context within which they are formulated' (Beer et al., 1984, p.17).

The Harvard Analytical Framework for HRM illuminates the 'human' aspect of HRM emphasising the employee and employer relationship (Budhwar & Debrah, 2001; Safdar, 2012). Budhwar and Debrah (2001) emphasise the human aspects of HRM, suggesting that the framework falls within the 'soft' variant of HRM sometimes also referred to as 'high commitment HRM' (Gould-Williams & Davies, 2005; Thompson, 2011). This framework contrasts commitment models based on control and compliance and is used to differentiate HRM from personnel and industrial relations theory (Thompson, 2011). This shift entailed a focus on creating 'conditions for employees to display internally self-driven initiative and take more responsibility for monitoring their own behaviour' (Wood & Albanese, 1995, p.216). This focus translated to employees participating in practices that increased autonomy, provided functional flexibility, direct communication, increased investment in human resources through recruitment, career paths and job security (Thompson, 2011).

Beer et al. (1984) suggest that the analytical framework can be used in various ways, from analysing an organisation's approach to a HRM issues, comparing the merits of two (or more) policy choices and forecasting likely outcomes from HRM policy choices. They suggest that it can assist in analysing 'how good each policy choice is for the enterprise, the individual, and society' (Beer et al., 1984, p.17). Each of the four HRM policy areas is characterised by tasks

to which managers must attend to achieve the HR outcomes - commitment, competence, congruence and cost effectiveness (Safdar, 2012). The HR outcomes aim to develop and sustain mutual trust and improve performance at the minimum cost so as to achieve the long-term objectives (Budhwar & Debrah, 2001; Safdar, 2012). Achievement of the long term objectives of the organisation includes acknowledging the existence of a number of associations with external environment (e.g. socio-economic, technological) and inner organisational environment (e.g. culture, structure) (Budhwar & Debrah, 2001; Safdar, 2012).

For this thesis, the framework guided the organising of the management domain literature review, and interpretation. It provided a comprehensive structural framework that enabled analysis to be guided by the key areas of effective HRM strategy. The relationship between employees and the organisation, and their connection to their working environment are considered to have a large impact on attraction, retention and voluntary turnover. For this reason, the Harvard Analytical Framework for HRM was determined the most suitable framework to guide the development of the integrated theoretical HRM Framework to guide analysis for this study.

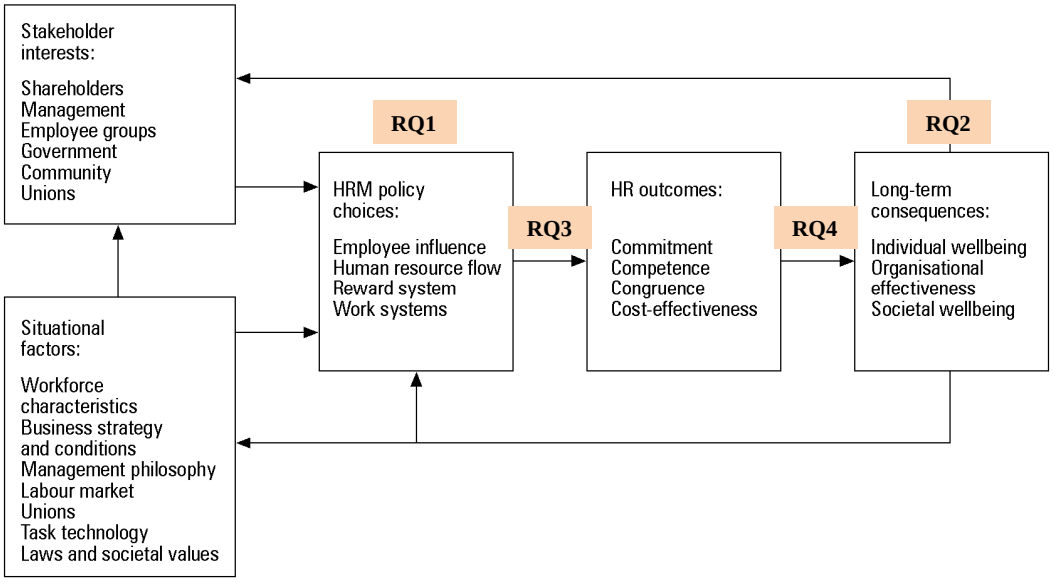


Figure 2.3: Harvard Analytical Framework for HRM (Beer et al., 1984, p.16)

2.4.2 Methods

Literature search

A review of the management literature was conducted using databases including: informit, CINAHL, EBSCOHost, OvidSP, OvidMP, PubMED, ProQuest and the Wiley online library. The search used the following terms in various combinations: 'harvard analytical framework', 'manage rural workforce', 'manage remote workforce', 'rural recruitment', 'rural turnover',

'human resource management', 'health work', 'remote work', 'rural work', 'management health services', 'Australian Indigenous workforce', 'human resource management theory', 'intrinsic rewards', 'extrinsic rewards', 'intention to leave', 'incentives', 'remote Australia recruitment', remote workforce', 'harvard', 'HRM', 'Beer', 'health workforce', rural recruitment', 'employer subsidised accommodation', 'subsidised accommodation health industry', 'employer accommodation and work relationships', 'Australia remote', 'rural health workforce housing', 'remote outreach', 'FIFO health', 'psychological contracts', 'mobilities paradigm', organisational commitment', organisational citizenship', 'job satisfaction', 'occupational commitment', 'volunteer medical'. The search identified thousands of matches; however, a review by title and keywords reduced it to 607 potential articles. Abstracts were reviewed for the 607 matches against the following inclusion criteria to filter the material further.

Inclusion Criteria:

a) Contains a theory, model, framework about managing people
b) Relevant to managing people in a remote/isolated area
c) Applicable to the health sector
d) Appropriate for an *Australian* workplace
e) Peer reviewed

Finally, 224 full articles were critically reviewed using criteria adapted from the 'Guidelines for critical review form: qualitative and quantitative studies' (Law, Steinwender & Leclair, 1998; Letts et al., 2007; Roots & Li, 2013) (Appendix B). These guidelines were developed to assist researchers to critical appraise literature and provide a foundation for embedding both procedural and analytical rigour into the review process. In addition, it improves auditability providing evidence of a decision trail based on sound research practice (Letts et al., 2007). Only peer reviewed articles were selected which served as a quality check for this literature review.

A full review of the 75 articles selected for this literature review can be found in Appendix C and the theories examined in more details are listed in Table 2.3, together with their corresponding connection to the HRM policy choices.

The management theories identified through this literature review were examined to assess their appropriateness to the HRM policy choices and HR outcomes contained in the Harvard Framework for HRM. The initial review considered all theories, regardless of whether they were content (e.g. why individuals leave organisations) or process (i.e. how individuals arrive at

their decisions to leave) theories (Maertz & Campion, 2004). Once the most suitable theories were identified, further analysis determined the most suitable theories to aid examination of the HRM policy choices and HR outcomes for the remote health workforce examined in this thesis.

2.4.3 Results and Discussion

HRM theories both complement and contrast each other; some with similar philosophies and others with starkly different approaches and philosophies. It is the view of the author that a thesis should draw from the previous research to investigate the issues thoroughly and to build on existing research. Thus, an extensive literature review was conducted to identify suitable theories to guide data analyses. A summary of the extant theories is contained in Table 2.3. The next section will explore these theories using the Harvard Analytical Framework for HRM to guide presentation of the results and discussion.

Stakeholder Interests

Central to the HRM approach is the assumption that 'managers must recognize the existence of many stakeholders and be able to comprehend the particular interests of each stakeholder' (Beer et al., 1984, p.21). The literature reviews identified stakeholder groups that were consistent with the Harvard Analytical Framework for HRM. The stakeholder groups included: shareholders, management, employee groups; government, community, and unions. These groups are considered inclusive of the stakeholders that have interests in the sustainability of the remote health workforce and therefore deemed sufficient to guide data analysis for this thesis.

Situational Factors

Situation factors such as unions, laws, societal values, and labour markets are 'external to the firm in the sense that they are part of the organization's environment; yet they emerge, in part at least, from the human resource policies of the past' (Beer et al., 1984, p.23). Furthermore, 'management philosophy, work-force characteristics, task technology, and business strategy are "inside" the firm in the sense that they appear to be subject to more managerial control': however, they can also affected by external business forces (e.g. competition) and societal forces (e.g. social policy) (Beer et al., 1984, p.23). The situational factors listed in the Harvard Analytical Framework for HRM included workforce characteristics, business strategy and conditions, management philosophy, labour market, unions, task technology, laws and societal values. They were consistent with the situation factors identified through the literature reviews (Guest & Conway, 2002; O'Donohue et al., 2007) and were therefore considered appropriate to guide data analyses.

Table 2.3: Extant Theories from the management domain literature review

Theories	Employee Influence	Reward Systems	Work Systems	HR Flow
Adams' Inequity Theory		✓		
Cognitive and motivational influences on the psychological contract	✓			✓
Cognitive Evaluation Theory (CET)		✓		
Crowding-out Theory		✓		
Eight Forces Framework		✓		✓
Employment Contracts and the State of the Psychological Contract	✓			✓
ERG Theory (Existence, Relatedness Growth)		✓		
Expectancy Theory		✓		
Four-Component Model of Occupational Commitment	✓			✓
Herzberg's motivation-hygiene theory		✓		✓
Integrated model of organizational support theory and psychological contract theory	✓			✓
Organisational Citizenship Behaviour	✓	✓		✓
Psychological Contracts Conceptual Framework	✓			✓
Psychological Contracts Theory	✓			✓
Self-Determination Theory		✓		✓
Social Cognitive Model of Person-Organization Fitting	✓			✓
Social Exchange Theory	✓			✓
Social Identification Multiple Commitment Model	✓	✓		✓
Systems-focused Model of Work Performance			✓	✓
The Job Characteristics model of work motivation		✓		✓
Three-Component Model of Occupational Commitment	✓			✓

HRM policy choices

HRM policy choices encompass all of the decisions about whether or not to implement specific policies and procedures in an organisation. However, the type of policy and way it is implemented to achieve compliance differs considerably. Analysis of the management literature identified potential models and theories relevant to HRM policy choices. These models and theories were reviewed (Appendix C) and those selected for closer examination are discussed in this section. This thesis focused on HRM policy choices and their impact on HR outcomes that influence workforce sustainability. The literature reviewed is presented in the following sections using the four policy choices outlined by Beer et al. (1984), employee influence,

reward systems, work systems and human resource flow, and the relevant theories identified through the critical analysis of the literature.

Employee Influence

Employee Influence describes how employees can 'act to improve or protect their economic share, psychological satisfaction, and rights' including how this influence is exercised (Beer et al., 1984, p.40). Beer et al. (1984) explained that they used the term 'employee influence' rather than 'employee voice' proposing that the latter implies that employee interests are expressed but not necessarily heard or actioned (Beer et al., 1984). Academics have extended the concept of 'employee influence' introduced by Beer and colleagues, in considering contemporary HRM challenges (Aselage & Eisenberger, 2003; Wingreen & Blanton, 2007). Bhattacharya & Wright (2005) found that employee influence includes opportunities for employee participation in decision-making, practices which improve employee morale and job satisfaction. While people may influence the variance of systems both directly and indirectly, most frequently, 'hierarchical level and autonomy are considered [the] key moderating variables in understanding individual versus system influences on work performance' (Waldman, 1994, p.510). Employee interaction and influence over work systems is examined further under the HRM Policy choice of 'work systems'.

Organisations that enable employee participation in decision-making, are more transparent and treat employees with respect strengthening perceptions of congruence between employee and organisational values. Wright and Kehoe (2008) suggest that this integrates them into the organisation, and enhances commitment. Furthermore, interpersonal relationships and social interactions inherent in HR practices accelerate feelings of inclusion, social cohesion and organisational embeddedness thus improving organisational commitment (Wright & Kehoe, 2008). Van der Heijden et al. (2009) found that research on retention and turnover emphasised the importance of interpersonal relationships within the work setting. Furthermore, Wingreen and Blanton's (2007) 'Social Cognitive Model of Person-Organisation Fitting model' provided a framework that encompassed many of the concepts contained in Social Exchange Theory (SET) and Psychological Contract Theory (PCT) assisting examination of the influence of person-organisation fit.

Integrated organisational support theory and PCT emphasise the importance of social exchange processes in the employee-employer relationship (Aselage & Eisenberger, 2003). Thomas et al. (2003) offered a model contributing further to our understanding of exchange relationships between employees and their employer. They considered cultural differences on the cognitive and social influences on psychological contracts, through examination of the formation of the

psychological contract, perception of violations and the associated responses to perceived violations. More specifically, they examined how cultural differences influence exchange relationships suggesting that cultural differences in the interpretation of messages regarding the exchange relationship influence the extent to which individuals 'formulate their contracts with a transactional or relational orientation' (Thomas et al., 2003, p.457).

Mallette's (2011, p.519) 'Psychological Contracts Conceptual Framework' examined the effect of contractual arrangements on Perceived Organisational Support (POS) and psychological contracts saying that 'both perceived organisational support and psychological contracts 'are based on the underpinnings of Social Exchange Theory'. Similarly, Aselage and Eisenberger found that 'POS enhances the employee's perceived contractual obligations' and 'when there is decreased POS, the employee's psychological contract is more transactional' (Mallette, 2011, p.527). In the 'Integrated model of Organisational Support Theory and Psychological Contract Theory' rewards and working conditions are positively related to POS, including skill development and autonomy (Aselage & Eisenberger, 2003; Mallette, 2011). Furthermore, Rhoades and Eisenberger (2002) suggested that there are three antecedents of POS: rewards and working conditions; support from supervisors; and procedural justice.

Trust is a 'problematic issue when a social exchange interaction is based on unvoiced promises and expectations' (Cullinane & Dundon, 2006, p.121). Empirical studies suggest that managerial trustworthiness is positively related to job satisfaction and organisational commitment (Cho & Perry, 2012; Ko & Hur, 2014). Additionally, breach of the psychological contracts can lead to mistrust in the workplace (Zhao et al., 2007). Furthermore, lack of trust was identified as a primary factor in the failure of management practices (Gould-Williams & Davies, 2005).

Baruch and Yehuda's (2002, p.338) 'Social Identification-Multiple Commitment Model' stated that 'commitment is frequently associated with an exchange relationship; and therefore 'the concept of the 'psychological contract' aids comprehension of those aspects of the employment relationship which are unwritten and subjective'. Furthermore they suggest that demographic variables can be proxies for other variables, for example, age may be closely associated with level of experience or family, social or professional obligations. Therefore, HRM policy choices that facilitate employee influence promote social exchange practices that positively impact employee experience and organisation performance.

Reward systems

> *The design and management of reward systems constitute one of the most difficult HRM tasks ... Individual employees, in exchange for their commitment, expect certain extrinsic rewards in the form of promotions, salary, fringe benefits, perquisites, bonus or stock options. Individuals also seek intrinsic rewards such as feelings of competence, achievement, responsibility, significance, influence, personal growth, and meaningful contribution* (Beer et al., 1984, p.113).

The primary focus for most organisations is to design a job so that employees work efficiently receiving an appropriate level of compensation (Giancola, 2011). However, 'research has shown that the quality of experience and performance can be very different when one is behaving for intrinsic versus extrinsic reasons' (Ryan & Deci, 2000, p.55). Intrinsic motivation is defined as the 'doing of an activity for its inherent satisfactions rather than for some separable consequence' (Ryan & Deci, 2000, p.56), in other words, the reward is in the activity itself (Baard, Deci & Ryan, 2004; Kanungo & Hartwick, 1987). However, others suggest that even intrinsic motivation seeks rewards outside of the activity and therefore they may be satisfying an innate psychological need (Ryan & Deci, 2000; Gagne´ & Deci, 2005). Intrinsic rewards include: promotion, authority, responsibility, and participation in decision making, praise from supervisors, praise from co-workers, recognition, and awards for superior performance (Giancola, 2011; Kanungo & Hartwick, 1987). Ryan and Deci (2000, pp.59-60) explain that intrinsic motivation 'will occur only for activities that hold intrinsic interest for an individual', that is, those activities with 'the appeal of novelty, challenge, or aesthetic value for that individual'. Another distinction was about who administered the reward with self-administered rewards considered intrinsic (Deci, 1972; Gagne´ & Deci, 2005; Kanungo & Hartwick, 1987).

In contrast, extrinsic motivation is a 'construct that pertains whenever an activity is done in order to attain some separable outcome' (Ryan & Deci, 2000, p.60). That is, extrinsic rewards are seen as being separate from the task and the only connection is that the reward is given if the task is completed (Kanungo & Hartwick, 1987). Extrinsic rewards are often monetary, such as pay (Giancola, 2011). Economic principles prescribe to the notion that people respond to incentives; however, these incentives which are usually in the form of rewards and punishments are often counterproductive and undermine intrinsic motivation (Benabou & Tirole, 2000; Gagne´ & Deci, 2005; Ryan & Deci, 2000). Furthermore, while large payments can encourage improved performance, these payments can make 'the people dependent on the money, thereby decreasing their intrinsic motivation' (Deci, 1972, p.120). Where money is used as a means of buying services where they are scarce, money as an external reward, may suggest that this service should not be provided without such a level of financial reward, therefore reallocating

the intrinsic rewards. This could lead employees to cognitively re-evaluate the activity from one which is intrinsically motivating to one which is motivated by the expectation of monetary reward (Deci, 1972). There is less opportunity for perceived value of work when it is monetary-based and employees can see clear differences in the value of their input by the organisation's financial reward response.

When an employee receives interpersonal rewards, they are not perceived as controlling behaviour, and strengthens 'intrinsic motivation because they strengthen [their] sense of competence and self-determination' (Deci 1972, pp.113-114). Mbemba et al. (2013) found evidence of the effectiveness of financial-incentive programs to attract health professionals in underserved areas; however, there was limited evidence on the impact of retention. In contrast, there was evidence that non-financial incentives (e.g. quality housing) and strategies that have associated obligations (e.g. visa conditions restricting practice) could be more effective in improving retention (Mbemba et al., 2013).

Extrinsic rewards are necessary to attract competent employees; however, current research emphasises the importance of intrinsic motivation for the day-to-day operations because 'it has larger consequences for satisfaction and intent to leave than extrinsic reward expectancy' (Cho & Perry, 2012, p.400). Ryan and Deci (2000) proposed that tangible rewards that are contingent on task performance undermine intrinsic motivation. Similarly, 'Crowding-out theory' suggested that the tie between 'intrinsic motivation and employee satisfaction is weakened under high levels of extrinsic reward expectancy' (Cho & Perry, 2012, p.399). Furthermore, the complexity of motivation and rewards, and the negative impact of inappropriate reward systems are emphasised. The 'social contextual conditions that support one's feelings of competence, autonomy, and relatedness are the basis for one maintaining intrinsic motivation and becoming more self-determined with respect to extrinsic motivation' (Ryan & Deci, 2000, p.65).

Furthermore, 'when rewards are administered in an autonomy-supportive climate, they are less likely to undermine intrinsic motivation and, in some cases, can enhance intrinsic motivation' (Gagne´ & Deci, 2005, p.354). 'Self-Determination Theory (SDT)' proposes that 'autonomous and controlled motivations differ in terms of both their underlying regulatory processes and their accompanying experiences' (Gagne´ & Deci 2005, p.334). Autonomously extrinsic motivation requires people to identify with the value for their own goals and integrated regulation 'emanates from their sense of self and is thus self-determined' (Gagne´ & Deci, 2005, p.335). For example, nurses identify with the importance of the activities for their patients; however, integrated regulation with other aspects of their job and lives would be more central to the nurse's identity. Thus, they are more likely to act in ways more consistent with the

caring profession and would appreciate the importance of doing uninteresting work tasks (Gagne´ & Deci, 2005). Self-determination theory states that people have three innate psychological needs: competence, autonomy and relatedness (Baard et al., 2004; Cho & Perry 2012; Giancola 2011). These needs are consistent with those explored in other theories (Aldeferd, 1969, Deci, 1972; Giancola, 2011).

Financial incentives and rewards are designed to increase commitment; however, 'these practices may not impact continuance outcomes unless the pay is at a level that would require employees to take a pay cut if they left' (Wright & Kehoe, 2008, p.15). Simply offering incentives does not mean employees will feel valued and perceive that it means that the organisation is concerned about them (Ko & Hur, 2014). 'Expectancy theory' proposes that people work hard when they think that it is likely to lead to desirable rewards (Kanungo & Hartwick, 1987). Therefore, it proposes that motivation is derived from anticipated rewards and is a function of the individual's beliefs about mastery (competence), the desirability of the outcome, and the probability that mastery will lead to the desired outcome (Wingreen & Blanton, 2007). Therefore, managers should focus on improving employment relationships rather than just focusing on trying to expand employee benefits within budgetary constraints (Ko & Hur, 2014).

Another aspect to be considered is the difference between tradition and non-traditional benefits (Kanungo & Hartwick, 1987; Ko & Hur, 2014). Traditional benefits are described 'as those that are consistently offered across organizations, and are therefore often expected by employees' whereas non-traditional benefits are 'those not typically offered by many organizations, and therefore are not expected by employees' (Ko & Hur, 2014, p.178). For example, superannuation and paid sick leave are offered to all employees therefore they are considered a traditional benefit whereas a one-off bonus given to a specific high-performing team for achieving a specific goal would be a non-traditional benefit (Kanungo & Hartwick, 1987). Researchers found that traditional benefits influence retention and have a significant influence on job satisfaction and turnover (Ko & Hur, 2014). Particularly given that job satisfaction is 'an employee-level reaction to their work experiences' that is considered to be a predictor of turnover (Yanadori & van Jaarsveld, 2014, p.503).

Organizational citizenship behaviour (OCB) is defined as a 'readiness to contribute beyond literal contractual obligations' knowing that 'it is not formally recognized by the organization's reward system' (Coyle-Shapiro & Kessler, 2000, p.910). OCB describes employee performance above and beyond the call of duty, which is discretionary and not rewarded through formal reward structures (Cohen & Avrahami, 2006; Coyle-Shapiro & Kessler, 2000; Konovsky &

Pugh, 1994; Gagne´ & Deci, 2005). Five dimensions of OCB have been identified - altruism, courtesy, sportsmanship, conscientiousness and civic virtue (Cohen & Avrahami, 2006). The psychological contract focuses on the employee-employer exchange, whereas OCB focuses on behaviour directed towards the organisation rather than colleagues or their manager (Coyle-Shapiro & Kessler, 2000). The literature suggests that there are a number of antecedents of OCB – job satisfaction, commitment and perceived organisational support; with one study reporting 'that the psychological contract complements organizational commitment and perceived organizational support as an important antecedent of citizenship behaviour' (Coyle-Shapiro & Kessler 2000, p.923). As such, 'the extent of perceived employer contract fulfilment has a significant effect on employees' perceived organizational support, organizational commitment and organizational citizenship behaviour' (Coyle-Shapiro & Kessler 2000, p.922).

The link between psychological contract fulfilment and OCB may be explained through a 'procedural justice perspective wherein violation is considered unfair treatment that leads to diminished trust that has a subsequent negative effect on citizenship behaviour' (Coyle-Shapiro & Kessler, 2000, p.911). Alternatively, if we accept 'Adams' Equity Theory', which proposes that a person will evaluate his own ratio of outcomes to inputs and compare it to the other person's ratio, it may be that OCB is a mechanism for employees to maintain a perceived equitable balance between what they contribute and what they receive from the organisation (Coyle-Shapiro & Kessler, 2000). Hence, if 'the ratios are unequal, the person will feel inequity and will be motivated to reduce this inequity' (Deci, 1972, p.114) resulting in absenteeism and/or turnover. Rewards must be perceived as equitable to avoid negative effects (Gagne´ & Deci, 2005). Additionally, satisfaction is associated with distributive justice, and commitment is associated with procedural justice (Knights & Kennedy, 2005).

ERG theory proposes that humans have three core needs - material existence, relatedness and personal growth. These needs underpin motivation and people often describe goals which may include mixtures of the basic needs. For example, a promotion, where the person obtains material rewards (increased pay); a change in interpersonal relationships, and new opportunities for development' (Aldeferd, 1969). Arnolds and Boshoff (2002) argue that the strengths of ERG theory is the job specific focus. Individuals adjust to meet the demands of the situation in which they find themselves, therefore, individuals may become more 'growth oriented' when 'confronted with a complex job which seems to demand that the individual develop himself and exercise independent thought and action in his work' (Hackman & Oldham, 1976, p.275). A review of Aldeferd's ERG theory by Arnolds and Boshoff (2002, p.712) found that satisfaction with pay and incentives 'does not influence the performance intentions of frontline employees, because these need satisfactions do not have any esteem valence' that is, the extrinsic rewards

only contribute to job satisfaction where they are linked by individual employees to an intrinsic benefit. They found that the self-esteem (linked to job performance) of frontline employees was not enhanced by job security associated with remuneration and financial incentives; however, the employer must compensate adequately enough so they can acquire basic necessities (e.g. housing, furniture, food, clothing) that satisfies their needs to prevent job dissatisfaction, which concurs with Herzberg's motivation-hygiene theory (Arnolds and Boshoff, 2002, p.712).

'Herzberg's two-factor theory of satisfaction and motivation,' or 'Herzberg's motivation-hygiene theory' as it is more commonly called, has been described as being the most influential theory to work redesign (Gagne´ & Deci, 2005; Hackman & Oldham, 1976; Kanungo & Hartwick, 1987). Herzberg's motivation-hygiene theory proposes that,

> *'the primary determinants of employee satisfaction are factors intrinsic to the work that is done ... These factors are called "motivators" because they are believed to be effective in motivating employees to superior effort and performance. Dissatisfaction, on the other hand, is seen as being caused by "hygiene factors" that are extrinsic to the work itself*' (Hackman & Oldham, 1976, p.251).

In this theory 'work motivation is largely influenced by the extent to which a job is intrinsically challenging and provides opportunities for recognition and reinforcement' (Giancola, 2011, p.24). In other words, the job's context (e.g. the work itself) was far more important to employee satisfaction and motivation than hygiene factors (e.g. company policies) (Giancola, 2011). In fact, Herzberg's motivation-hygiene theory suggests that, 'a job will enhance work motivation and satisfaction only to the degree that "motivators" are designed into the work itself' (Hackman & Oldham 1976, p.251). Herzberg also suggested that 'only intrinsic rewards truly motivate and satisfy workers' (Kanungo & Hartwick, 1987, p.751).

Hackman and Oldham continued building on the work of Herzberg 'by relating work design, motivation, and job performance through their well-known and widely accepted job characteristics model' maintaining that 'motivation can be increased by enhancing a job's variety, challenge, autonomy, feedback and meaningfulness ' (Giancola, 2011, p.24). This model focused on the interaction of three variables: the psychological states necessary for internal motivation; the characteristics of jobs that can create these psychological states; and individual attributes that determine how positively a person responds to complex and challenging work (Hackman & Oldham, 1976).

It is recognised that, '[m]otivation is a multidimensional construct' (Cho & Perry, 2012, p.384). When managers were autonomy-supportive, a higher level of trust in the organisation,

adjustment and overall job satisfaction was reported (Baard et al., 2004). Additionally, autonomous motivation may be associated with organisational commitment (Gagne´ & Deci, 2005). It seems that 'the tie between intrinsic motivation and employee satisfaction is strengthened under high levels of managerial trustworthiness and goal directedness' (Cho & Perry, 2012, p.399).

According to Hackman and Oldham (1976, p.256), 'Experienced Meaningfulness of the Work' is the degree to which the individual experiences the job as one which is generally meaningful, valuable, and worthwhile' which is similar to the findings on the PCT and SET literature which suggests that intrinsic motivation and organisational values congruent with that of the employee are beneficial in improving job satisfaction, citizenship behaviour and reducing turnover (Nogueras, 2006; Rosete, 2006; Wright & Kehoe, 2008). Similarly, 'experienced responsibility for work outcomes is the degree to which the individual feels personally accountable and responsible for the results of the work' (Hackman & Oldham, 1976, p.256) which is consistent with PCT where the employee feels responsibility, and obligation towards an employer who is fairly rewarding them for their efforts; and SET where the social exchange relationships provide a foundation for this type of behaviour.

Work systems

> *[M]anagement choices concerning work systems design will have a strong effect on commitment, competence, cost effectiveness and congruence* (Beer et al., 1984, p.153).

Employees work in a system, the creation and continuation of which are the responsibilities of management. It is acknowledged that for employees most performance variation is probably due to system factors beyond their control; however, for the managers who are responsible for the development and maintenance of the systems it is not as clear (Waldman, 1994). Thus, individuals affect systems, particularly at senior management levels and in more autonomous jobs. Waldman's (1994) 'Systems-focused Model of Work Performance' proposed that 'hierarchical level and autonomy are further portrayed as moderating relationships between person factors and work performance and between system constraints and demands' (Waldman, 1994, pp.518-519).

Waldman (1994, p. 528) found that autonomy 'enables individuals to demonstrate their own efforts and initiatives'. Employees feel a sense of freedom and power to influence the system if they feel autonomous in their work environment. When compared to hierarchical levels, the amount of autonomy a person experiences is a more comprehensive concept to use when considering an employee's ability to influence a system (Waldman, 1994). Furthermore, it

enables them an opportunity to modify themselves or the work environment enhancing their person-organisation fit and may 'serve to moderate the extent to which individuals are able to significantly influence a system' (Waldman, 1994, p.527). Therefore, there are reciprocal influences of people and systems to be considered, and not just the effects of the system (Waldman, 1994).

People interact with systems so even 'if a system is invariant, people may react to it differentially because of their different abilities, values [and] expectations' (Waldman, 1994, p.517). For example, inconsistent leadership or management practices can be a source of variation within a system (Waldman, 1994). People can experience dissatisfaction with a system despite a favourable outcome; this is often due to the perception of injustice in the process or an inappropriate system. On the other hand, 'the use of a process viewed as fair and just can make negative outcomes more palatable' (Ko & Hur, 2014, p.179). It appears that a poor outcome is acceptable if perceived as fair. Thus, even when 'the level of satisfaction with employee benefits is low, employees with high managerial trustworthiness may have similar levels of job satisfaction and turnover intention because managerial trustworthiness may facilitate the employees' intrinsic motivation in spite of limited financial resources of the organization' (Ko & Hur, 2014, p.180). Subsequently, 'employees perceiving a high level of procedural justice may have similar levels of job satisfaction and turnover intention regardless of their level of satisfaction with employee benefits' (Ko & Hur, 2014, p.180).

Human Resource flow

> *The more dynamic the environment (rapid changes in market and technology), the more a corporation must be concerned with managing the flow of people in, through, and out of the organization* (Beer et al., 1984, p.66).

There are many internal factors (e.g. management practices) and external factors (e.g. industry skills shortage) that impact HR Flow. However, this literature review highlighted that HR Flow policy choices are in fact closely related to all other HRM policy choices which endeavour to recruit well to achieve workforce stability. Migration patterns, of all professionals, illustrated that movement of the health workforce to urban areas is common globally (Kabene et al., 2006). Mobility creates imbalances requiring workforce planning, attention to pay, rewards and improved overall workforce management (Kabene et al., 2006). Greater benefits and procedural justice may reduce turnover; however, employees leave organisations voluntarily, taking company-knowledge, skills and experience with them (Bhattacharya & Wright, 2005). Voluntary turnover is a major risk for organisations, where demand exceeds supply. Research has found that individual factors arising from dissatisfaction with pay, promotion, supervisory

relationships, job content, autonomy, and responsibility are associated with voluntary turnover (Bhattacharya & Wright, 2005; Griffeth & Hom, 1995).

According to Maertz and Boyar (2012) researchers assume that the reasons that led past employees to leave are the same reasons that will cause current or future employees to resign. Based on this assumption it appears that policy choices are relatively simple; organisations should establish the determinants of organisational commitment and then address these issues through their HR strategies and practices (Iverson & Buttigieg, 1999). The growing body of HRM literature highlighted the integral role of organisational commitment in HRM policies (Becker & Gerhart, 1996; Guest, 1987; Wood & Albanese, 1995). Additionally, ambiguities in the organisational commitment literature raise questions about whether 'it is appropriate to apply blanket HR policies to obtain `organizational commitment' without a complete consideration of the consequences for promoting different forms of commitment' (Iverson & Buttigieg, 1999, pp.307-308).

Maertz and Boyar (2012) claimed that their 'Eight Forces Framework' was a comprehensive turnover model. The eight forces are: affective (overall feeling about the organization); contractual (psychological contract obligations); calculative (chances for achieving their career goals and values at the current organization); alternate (a perceived attainable alternative); behavioural (perceived tangible and psychological costs incurred by leaving), normative (perceived expectations from family or friends); moral (motivated to acting consistently with personal values); and constituent (foci of commitment and job embeddedness). These forces are based on perceptions, motivations and obligations that employees experience that ultimately influence voluntary turnover.

The link between organisational commitment and effectiveness indicators (e.g. turnover and absenteeism) has been established (Iverson & Buttigieg, 1999). Iverson and Buttigieg (1999, p.307) suggest that 'individuals who are organizationally committed are less likely to be absent and to voluntarily leave their organizations.' However, other than recruitment practices and socialisation 'researchers offer surprisingly few concrete suggestions for managing turnover' and there are few best practices for retention of current employees described in the literature (Maertz & Boyar, 2012, p.72). For organisations with limited resources, it makes sense to focus attention on assessing the attachment and withdrawal behaviour of current employees, those employees whose decisions can still be influenced by management (Maertz & Boyar, 2012). Before investing significant resources in retention initiatives it is important for organisations to understand the nature of turnover in their particular context, otherwise is unlikely to maximize their return on the investments (Maertz & Boyar, 2012).

HR Outcomes

HRM policy choices are not isolated policy or practice decisions; they are part of the broader organisational policies and impact the organisation and society on varying levels. The review of the management literature highlighted some of the key areas of consideration for HR outcomes (commitment, competence, congruence, and cost effectiveness) resulting from HRM policy choices.

Commitment

> *HRM policies enhance the commitment of employees. Increased commitment can result not only in more loyalty and better performance for the organization, but also in self-worth, dignity, psychological involvement, and identity for the individual* (Beer et al., 1984, p.19).

Commitment is associated with an exchange relationship (Baruch & Winkelmann-Gleed, 2002). Employees can be committed to their profession, their colleagues (team) or their organisation (Irving et al., 1997). Both organisational and occupational commitment influence HR outcomes, such as turnover and intention to leave (Gambino, 2010; Knights & Kennedy, 2005). Turnover and intention to leave are more strongly associated with organisational commitment than with job satisfaction (Knights & Kennedy, 2005; Shore & Martin, 1989). Therefore, 'job satisfaction and organisational commitment share many common antecedents; however, whether satisfaction influences commitment, or whether commitment to the organisation results in job satisfaction, is an area of contention among researchers' (Knights & Kennedy, 2005, p.59). Several studies suggest that commitment is an antecedent of satisfaction (Bateman & Strasser, 1984; Vandenberg & Lance, 1992). Some view satisfaction as an antecedent of commitment (DeCotiis & Summers, 1987; Knights & Kennedy, 2005) and others suggest that satisfaction and commitment are correlates (Mathieu & Zajac, 1990). Turnover intentions have been negatively correlated with commitment, of all types, with stronger links evident between turnover intentions and affective commitment (Irving et al., 1997; Meyer et al., 1993). Social support and leadership, as well as the work-home interface, may affect an employee's decision to leave. Furthermore, job satisfaction appears to mediate this relationship (van der Heijden et al., 2009).

Organisational commitment refers to the strength of an employee's attachment to the organization (Bartlett, 2001) and develops slowly, usually after the employee develops a firm sense of the job, the organisation's goals and values, performance expectations and the implications of maintaining organisational membership (Knights & Kennedy, 2005). Professional development plays a role in organisational commitment so managers should

'explore the role of commitment and its relationship to improvements in retention and productivity' (Bartlett, 2001, p.348). Furthermore, access to training is also strongly related to organisational commitment which suggests that 'employees don't necessarily want to participate in a predetermined number of training events or hours per year but do value the knowledge that training is freely available' (Bartlett, 2001, p.346).

Organisational commitment is relevant to all employees and develops from their relationship with their organisation. Organisational commitment is linked with other constructs such as loyalty (Gambino, 2010; Paauwe, 2009), organisational citizenship behaviour (Coyle-Shapiro & Kessler, 2000) and organisational identity (Highhouse, et al., 2007). Combined these constructs suggest a stronger connection with the organisation and an increased motivation to remain as the employee derives benefits (intrinsic and extrinsic) from continued employment. Consequently the absence of these variables increased the likelihood of separation from the organisation. This may be a physical separation in the case of turnover or a psychological separation resulting in an intention to leave, absenteeism or presenteeism.

Another form of commitment often experienced by professionals is occupational commitment. An occupation is defined as 'an identifiable and specific line of work that an individual engages in to earn a living at a given point in time (e.g., nurse, doctor). It is made up of a constellation of requisite skills, knowledge, and duties that differentiate it from other occupations and, typically, is transferable across settings' (Lee et al., 2000, pp.799-800). For professional employees, it appears that 'identification with and attachment to their profession is a particularly important factor in making the decisions to leave the profession or the organization' (Lee et al., 2000, p.808). For example, nurses can be committed to their professional of nursing and this commitment continues to grow and develop irrespective of their employer.

Occupational commitment is defined as the 'psychological link between an individual and his/her occupation' (Lee et al., 2000, p.800) including the acceptance of the values and a willingness to maintain membership in that occupation (Irving et al., 1997; Vandenberg & Scarpello, 1994; Wright & Kehoe, 2008). Thus, someone with higher occupational commitment strongly identifies with the positive feelings they have about their occupation (Blau, 2003). Based on Becker's (1960) work, researchers argued that continuance organizational commitment develops when employees realise that they have an investment (or 'side bet') that will be lost if they leave their organization without comparable alternatives available (Blau, 2003; Gambino, 2010; Meyer & Allen, 1991; Nogueras, 2006). Gambino (2010) challenges this theory proposing that a dual loyalty to both the occupation and the organisation can exist. While accumulated investments make it less attractive to change occupations, change is still possible;

however, if limited occupational alternatives are perceived there may be a greater sense that there are no other viable occupational options (Blau, 2003).

Occupational commitment may increase as more contingency work arrangements emerge and employees 'focus their attachment more on the occupations than the organizations for which they work' (Irving et al., 1997, p.449). Consequently, occupational commitment may derive from a more personal commitment as it has personal costs. For example, training and professional development costs incurred over a career are mainly incurred by individuals so leaving a profession has a financial cost as well as a sense of time lost to a profession that is no longer of value to the individual (Irving et al., 1997).

Therefore, 'occupational commitment has an indirect effect on organizational turnover intention through occupational turnover intention. In turn, occupational turnover intention appears to play as powerful a role as organizational commitment and job satisfaction in the prediction of organizational turnover intention' (Lee et al., 2000, p.807). Job dissatisfaction contributes to an employee's intention to leave their profession (van der Heijden et al., 2009; Blau, 2007). Furthermore, occupational turnover intention was positively related to organisational turnover intention, even when the effects of job satisfaction and organisational commitment were considered (Lee et al., 2000).

Snape and Redman (2003, p.616) found that for nurses 'withdrawal from the profession may be prevented by extending nurses' social support at work, helping them to combine work with non-work, and improving the leadership quality of their supervisors'. This supports an argument that emphasises the importance of support and employee-manager relationships in improving retention. The dimension of occupational commitment adds further complexity, confirming the importance for this thesis to examine both organisation and occupational commitment and all associated commitment factors. Furthermore, there are two commonly accepted models of occupational commitment further emphasising the complexity of this construct – the three and four component models.

The Three-Component Model of Occupational Commitment describes the 'psychological link between an individual and the decision to continue in an occupation' (Nogueras, 2006, p.86). The three dimensions of commitment are described as: emotional attachments (affective commitment); the costs of leaving, such as losing attractive benefits or seniority (continuance commitment); and, the individual's personal values (normative commitment) (Bartlett, 2001; Nogueras, 2006). In addition, 'it is more appropriate to consider affective, continuance, and normative commitment to be components rather than types of commitment because an

individual employee's relationship with an organization may vary across all three components' (Bartlett, 2001, p.337).

In contrast, occupational commitment may be better represented by the four-factor model consisting of 'affective, normative, accumulated costs and limited alternatives dimensions' (Blau, 2003, p.469). The additional component, 'limited alternatives', implies an external force to turnover decision-making in that employees may be less inclined to leave voluntary if they perceive that there are limited opportunities for them beyond their current role with their current employer. Employees attach themselves to organizations through investments such as time, effort and rewards. These investments have costs which limit an employee's freedom for future work activity' and bind the employee to the organization largely due to the costs incurred by leaving (Iverson & Buttigieg, 1999). Therefore, limited perceived opportunities further bind them to organisations (Blau, 2003).

Finally, the research focused on the organisation and the occupation as the main targets of commitment; however, there may be other targets of commitment that might be impacted by HRM practices and subsequently employee performance. For example, they may be committed to personal goals, the supervisor or the workgroup (Wright & Kehoe, 2008). Multiple commitments may not be in conflict but competing commitments can inhibit commitment strength (Wright & Kehoe, 2008). Multiple commitments 'imply that even when HR practices elicit the organizational commitment desired, the outcomes may not be observed if they conflict with other commitments' (Wright & Kehoe, 2008, p.12) For example, an employee may be highly committed to an organisation, but commitment to their family may supersede this commitment. This was discussed previously in the employee influence section.

Competence

> Competence covers the extent to which *'HRM policies attract, keep, and/or develop people with skills and knowledge needed by the organization and society, now and in the future ... When necessary skills and knowledge are available at the right time, the organization benefits and its employees experience an increased sense of self-worth and economic well-being* (Beer et al., 1984, p.19).

Competence is regarded as an important aspect of several theories including two discussed previously: Social Determination Theory and Expectancy Theory (Cho & Perry, 2012; Ryan & Deci, 2000; Giancola, 2011; Wingreen & Blanton, 2007). They were discussed in the reward systems section as there is a close link between competence and rewards, particularly when considering intrinsic motivation. One theory not mentioned previously is 'Cognitive Evaluation

Theory', which argues that interpersonal events produce feelings of competence enhancing motivation by satisfying the psychological need for competence (Ryan & Deci, 2000). For a high level of intrinsic motivation people seek satisfaction of their need both for competence and autonomy (Ryan & Deci, 2000). Unfortunately, most of the research on the effects of intrinsic motivation focused on the struggle between autonomy versus control rather than the importance of competence (Ryan & Deci, 2000).

Spreitzer (1995) described competence at work as self-efficacy in regard to an employee's belief in their capability to perform a specific work role, thus, distinguishing it from a general sense of self-efficacy. According to Spreitzer (1996) the relationship between competence and empowerment in the workplace is based on an assumption that empowerment is not generalisable across situations, rather it is shaped by the work context. Therefore, competence and empowerment are a reflection of an employee's perception of their ability to perform a work task in a given context (Spreitzer, 1996; Thomas & Velthouse, 1990).

Congruence

> *The lack of such congruence can be costly to management in terms of time, money, and energy, in terms of the resulting low levels of trust and common purpose, and in terms of stress and other psychological problems it can create* (Beer et al., 1984, p.19).

Changes in the contemporary employment context have prompted individuals to seek closer alignment between themselves and their work, as well as with the organisational and broader societal contexts. For many professional employees, identification with their professional ideology is a significant factor in producing such an alignment' (O'Donohue & Nelson, 2007, p.547). Rosete (2006) examined the effect of value congruence between employees and managers on satisfaction and commitment, finding that 'individual employees were more satisfied and committed to the organisation when their values were congruent with that of their supervisors' (Rosete, 2006, p.8). This suggests that congruence between the organisation's values and those of the individual employee can impact job satisfaction, organisational commitment and intention to leave an organisation (Rosete, 2006). Therefore, recruitment and selection processes should focus more on attempting to fit individuals with organisations, rather than fitting people to defined jobs. The most commonly investigated outcomes of person-organisation fit were job satisfaction, performance, organisational commitment and turnover (Wingreen & Blanton, 2007). Evidence supports the importance of person-organisational fit on commitment and turnover (Bowen et al., 1991; O'Reilly et al., 1991; Waldman, 1994). Therefore, understanding job satisfaction and organisational commitment is crucial for organisations trying to minimise turnover (Rosete, 2006).

Moreover, professionals derive their identity from the distinctive characteristics of their professional ideologies, which encompass values and beliefs that reflect certain attributes that professions are considered to embody (O'Donohue et al., 2007). 'Organizational identity refers broadly to what members perceive, feel and think about their organizations' (Hatch & Schultz, 1997, p.357). A higher level of commitment to professional values and beliefs than to the organisation is common, usually because people chose their profession prior to commencing with the organisation and will continue that profession after they leave the organisation. Furthermore, the commitment they had to the organisation may be 'contingent upon it supporting their professional values and beliefs' (O'Donohue et al., 2007, p.307).

Cost-effectiveness

> *The impact of the 'cost-effectiveness of a given policy in terms of wages, benefits, turnover, absenteeism, strikes, and so on' should be 'considered for organizations, individuals, and society as a whole* (Beer et al., 1984, p.19).

Organisational turnover is associated with high costs for the organisation; however, occupational turnover is usually considered an individual cost (Blau, 2003; van der Heijden et al., 2009; Waldman et al., 2004; Zhao et al., 2007). Regardless of who is absorbing the costs, voluntary turnover has associated costs (Knights & Kennedy, 2005; van der Heijden et al., 2009). According to Wright and Kehoe (2008) an association between high commitment HRM models and the organisation's financial performance has been established SET supports this suggesting that social exchanges be viewed from a cost–benefit perspective, similar to an economic exchange, with the exchange being intangible social costs and benefits instead of more tangible monetary gains (Cropanzano & Mitchell, 2005; Xerri, 2013). For example, training investments may increase perceptions that the organization values their current and future employees and thus their level of commitment (Bartlett, 2001); however, it also may increase the marketability of those employees (Wright & Kehoe, 2008). The employee may acquire skills and competencies as a result of this training that improves their employability. Thus, management practices can improve retention; however, may also result in an increase in voluntary turnover (Wright & Kehoe, 2008). Organisational commitment and loyalty can minimise voluntary turnover that arises from increased marketability through the psychological contract. More specifically, where employees feel an obligation though the social exchange relationship they are more likely to fulfil this obligation to their employer based on the reciprocity of the exchange relationship.

Finally, organisations benefit through considering the four dimensions of workforce planning: the strategic direction; labour demand; labour supply considerations; and the supply-demand

matching process (Freyens, 2010). Going beyond the technical analysis of workforce assessments, HRM needs to include, turnover management, evaluation and benchmarking processes (Anderson, 2004; Freyens, 2010). Ultimately they should aim to 'have the right people at the right place at the right time with the right skills' (Freyens, 2010, p.264).

Long-term consequences

The long term consequences of HRM policy choices include individual wellbeing, organisational effectiveness and societal wellbeing. Beer et al. (1984, p.18) explained that individual wellbeing is important because 'working conditions can have both positive and negative effects not only on employees' economic welfare, but on their physical and psychological health'. It is important that the HRM policy is developed and implemented in a manner that supports individual wellbeing as well as contributing to positive performance. Organisational effectiveness, demonstrates the importance of HRM policy 'because it serves to increase the organization's efficiency or its adaptability, its service performance or its price performance, its short-term results or its long term results' (Beer et al., 1984, p.18). This is essential as organisations need to be viable entities to continue to operate so a balance is needed to support both individual and organisational needs.

Hence, 'job satisfaction and turnover intention reflect the outlook that employees have about their employment' (Ko & Hur, 2014, p.180). Many factors contribute to job satisfaction, including pay, promotion, benefits, supervision, co-worker relationships, employment conditions, nature of the work, communication and job security (Knights & Kennedy, 2005). Furthermore, employees' perceptions of their relationship with their organisations are associated with satisfaction and turnover intention (Cho & Perry, 2012; Ko & Hur, 2014). If there is a difference between what was expected and what was received an employee may experience a decrease in job satisfaction, especially if the factor was important to the employee (Knights & Kennedy, 2005; Robinson & Rousseau, 1994). In addition, employees 'display higher levels of job satisfaction, and subsequently lower turnover intentions, when their working environment satisfies their needs' (Ko & Hur, 2014, p.180). Satisfaction needs are fulfilled when employees are autonomously motivated by their work being interesting and meaningful to themselves and others. When employees perform effectively at these jobs, they satisfy their 'basic psychological needs and have positive attitudes toward their jobs' (Gagne´ & Deci, 2005, p.353). Job satisfaction has been identified as an important correlate of performance and turnover (Mallette, 2011). Voluntary turnover may be an outcome of dissatisfaction with the work situation and therefore satisfaction may be considered an important precursor of the decision to leave (Griffeth et al., 2000; van der Heijden et al., 2009).

Work engagement is also an important construct in considering the long-term wellbeing of individual employees which ultimately benefits the organisation through improved productivity (Seppala et al., 2009). Schaufeli et al. (2006, p.702) define work engagement 'as a positive, fulfilling work-related state of mind that is characterized by vigor, dedication, and absorption'. This definition is widely accepted (Llorens et al., 2007; Seppala et al., 2009) and most studies agree that work engagement consists of three domains – vigor, dedication and absorption (Nerstad, 2010; Schaufeli et al., 2002; Seppala et al., 2009), although perseverance, has also been raised a possible fourth dimension (Mills, 2012).

Additionally, work engagement appears to be a highly stable indicator of occupational wellbeing (Seppala et al., 2009, p.459). Studies have found work engagement to be positively associated with 'mental and psychosomatic health, intrinsic motivation, efficacy beliefs, positive attitudes towards work and the organization, and high performance' (Seppala et al., 2009, p.475). Additionally, work engagement has been linked to resource availability, autonomy, social support, performance feedback and variety of work tasks all of which impact on the ability of the employee to perform their role (Nerstad, 2010; Schaufeli et al., 2006; Seppala et al., 2009).

Societal wellbeing resonates strongly in remote northern Australia, as with many rural and remote areas. In these regions the connections between financial, individual and community wellbeing are entwined such that the commercial viability of the region is critical to the social wellbeing of the community (Hunter, Onnis & Pritchard, 2014). Beer et al. (1984, p.18) reminded us that 'employers pass on many of the costs of their management practices to society' so regardless of who bears the cost 'they should be recognized as associated with the HRM policy decisions made by management' (Beer et al., 1984, p.18). In considering long-term impacts, organisations should consider what 'management's past HRM practices cost not only the company and employees, but society as a whole' (Beer et al., 1984, p.18). For example, the alienated and unemployed may 'develop psychological and physical health problems that make them burdens to community agencies funded by local, state or federal government' (Beer et al., 1984, p.18).

2.4.4 Overarching theoretical foundation

Overall, the review of the theories, frameworks and models supported two key theories, Psychological Contract Theory (PCT) and Social Exchange Theory (SET); both of which provide an extensive evidence base to guide this study's HRM approach to examining the remote health workforce. These theories were selected for several reasons. Firstly they were frequently referenced in the reviewed literature, particularly in regard to the management practices of interest to this thesis, for example, employee-employer relationships, organisational commitment and retention. In addition, they were complementary in their nature, so together, they provided a broader theoretical foundation to examine and interpret the data. Even though PCT and SET emerged as potential theories for this thesis quite early in the management domain literature review; the other theories identified through the literature review were still examined. Ultimately, the suitability of these two theories remained prominent throughout the whole review so they were selected to provide the theoretical foundation for this thesis. Thus, PCT and SET not only provided a theoretical foundation for this thesis, they contributed to a deeper understanding of how employees influence their own experiences, their work environment and the long term consequences for both the employee and the organisation. The suitability of these theories is explored in more detail in the next section.

Psychological Contract Theory (PCT)

PCT describes an individual employee's beliefs about their employment relationship and 'what they think they are entitled to receive because of real or perceived promises' from their employer' (Bartlett, 2001, p.337). According to Cullinane and Dundon (2006, p.113) the concept of the psychological contract originated outside the management field, nonetheless it is 'a major analytical device in propagating and explaining HRM'.

Rousseau, who is credited with leading the renaissance of the psychological contract (Cullinane & Dundon, 2006), defines it as 'an individual's beliefs regarding the terms and conditions of a reciprocal exchange agreement between that focal person and another party' (Rousseau 1989, p.123). This reciprocity is unspecified and implicit, and thus difficult to quantify (Bal, De Lange, Jansen, & Van der Velde, 2008; Baruch and Winkelmann-Gleed, 2002; Cullinane & Dundon, 2006). As a result, researchers have considerable knowledge about the implications and consequences of unmet expectations and obligations; however, it remains difficult to ascertain more than a general description of what aspects of the psychological contract are important to employees (Cullinane & Dundon, 2006; Knights & Kennedy, 2005). These 'psychological contract obligations to repay the organization can imply or explicitly include staying' suggesting that they can promote retention and reduce voluntary turnover (Maertz & Boyar, 2012, p.74). Conversely, perceived psychological contract breach and violation reduces

or eliminates such obligations which influences voluntary turnover (Maertz & Boyar, 2012; Knights & Kennedy, 2005).

These obligations may be transactional (e.g. pay, bonus) or relational (e.g. loyalty in exchange for job security). Transactional psychological contracts are characterised by specific, short-term, monetary obligations (Thomas et al., 2003; Coyle-Shapiro & Kessler, 2000). In contrast, relational contracts emphasise broad, long term, socio-emotional obligations, such as commitment, loyalty, fairness, trust, job security, role clarity, and career development (Thomas et al., 2003; O'Donohue et al., 2007; Coyle-Shapiro & Kessler, 2000). Psychological contract formation commences during the recruitment process (Knights & Kennedy, 2005) and it is during these early experiences that employees form expectations and perceived obligations of their employer. However, psychological contracts continue to form during early socialisation and in the later stages of employment (Cullinane & Dundon, 2006; Zhao et al., 2007).

There are three contextual variables concerned with social processes that may impact employee psychological contracts – organisational justice (distributive, procedural and interactional), perceived organisational support, and external employability (Aselage & Eisenberger, 2003; O'Donohue et al., 2007; Baruch & Winkelmann-Gleed, 2002). Where employees perceive that organizations value and treat them equitably, they will reciprocate with positive attitudes and behaviours (Gould-Williams & Davies, 2005). However, if an employee perceives inequity in the distribution of rewards or injustice within the workplace, unmet expectations may be viewed as violations of the psychological contract (Knights & Kennedy, 2005). This is referred to as a breach, most commonly described as the employee's perception that the organisation has failed to fulfil its promises or obligations (Zhao et al., 2007; Knights & Kennedy, 2005).

The term violation and breach are sometimes used interchangeably (Zhao et al., 2007); however, they are two distinct aspects of the psychological contract. A breach is described as the cognitive evaluation, that is, a mental calculation of what has been received compared to what they believe was promised, whereas, violation is the emotional response that may follow from the breach (Zhao et al., 2007; Knights & Kennedy, 2005). In other words, a violation is an outcome of breach, and the emotion of the violation is most likely translated into the behaviour that results in voluntary turnover (Zhao et al., 2007; O'Donohue & Nelson, 2007).

There are a variety of actions, expectations and complications to the psychological contract beyond the obvious difficulties associated with an unwritten contract developed by only one party. While much of the literature focused on the employee's perception, Guest (1998) argued that it was essential to also consider the employer's perspective. For example, the perceived

breach may be ‘a case of false expectations rather than evidence of management overtly reneging on promises that are ‘believed’ to have been made’ (Cullinane & Dundon 2006, p.119). External market pressures, incongruent employment relationships, organisational structures and institutional inertia may all contribute to a perceived breach, so, ‘if employers fail to deliver their side of the deal, it may not be managements’ fault’ (Cullinane & Dundon, 2006, p.121).

There may also be aspects of employment, such as temporary workers, occupations and hierarchies that influence psychological contract fulfilment. For example, Guest (2004) found that temporary employees were more likely than permanent employees to perceive their contracts as transactional rather than relational. Additionally, ‘it is possible that employees from different occupations have different psychological contracts and react to breach in different ways’ (Zhao et al., 2007, p.671).

PCT presents an opportunity to examine the employee–employer relationship and brings to the forefront the fundamental question of ‘who is the employer?’ (Coyle-Shapiro & Kessler, 2000). In contemporary workplaces this may not be clear with employees’ loyalty often split between the organisation for whom they provide outcomes, and the organisation that employs them. This situation is predicted to be more common; for example, increased labour hire, casual employees, consultancy, locums and an increase in large multi-national organisations, all of which may increase the confusion of who the employees perceive to be their employer (Coyle-Shapiro & Kessler, 2000). Most often, the employee's manager represents the organisation and so it is this relationship that is critical from the social exchange perspective (Konovsky & Pugh, 1994).

HRM practices are known to affect psychological contracts (Bartlett, 2001) and some suggest that fostering relationships is a function of HRM (Bartlett, 2001). It is difficult to know how HRM can foster a relationship conducive to maintaining psychological contracts, given that they are unwritten and formed by the employee; however, some examples have been offered (Bartlett, 2001; Coyle-Shapiro & Kessler, 2000). For example, access to training can be viewed as a ‘management practice that can be controlled or managed to elicit a desired set of unwritten, reciprocal attitudes and behaviors, including job involvement, motivation, and organizational commitment’ (Bartlett, 2001, p.338). Furthermore, ‘perceived access to training, social support for training, motivation to learn, and perceived benefits of training are positively related to organizational commitment’ (Bartlett, 2001, p.335).

Finally, the power imbalance between managers and employees may have implications for expectations, particularly how unvoiced expectations are communicated in the workplace. Morrison and Robinson (1997) suggest that when power is considered, it is not surprising that there is contract violation. Similarly, Cullinane and Dundon (2006, p.119) reinforce this by suggesting that it is 'time that the psychological contract should be recognized for what it is: a social exchange interaction'.

Social Exchange Theory (SET)

The employment relationship is characterized by both social and economic exchanges (Gould-Williams & Davies, 2005). According to the literature, 'social exchange involves interactions that over a period of time generate obligations' and that within the workplace if 'employees are satisfied with the outcomes of their workplace exchanges they are more inclined to respond with greater performance' (Xerri, 2013, p.105). In the ideal workplace, both managers and employees benefit from effective social interactions (Brunetto et al., 2016a). When the employment relationship is viewed as an exchange it is often described as consisting of social and/or economic exchanges which includes contractual arrangements enforceable through law and 'social arrangements premised on a long-term exchange of favors that precludes accounting and is based on a diffuse obligation to reciprocate' (Gould-Williams & Davies, 2005, p.3). Social exchanges are more difficult to quantify, but are quite influential in the workplace, particularly when considering workplace relationships. The employee's understanding of the exchange relationship defines 'the employment relationship and subsequently the psychological contract' (Mallette, 2011, p.519).

Allen, Shore and Griffeth (2003) suggest that the presence of HRM policies and practices implies that the organization cares about and values employees. Specifically, the 'high commitment' approach to HRM endeavours to 'enhance worker performance by empowering, developing and trusting workers to achieve organizational goals on the basis of mutuality of interests' (Gould-Williams & Davies, 2005, p.6). In fact, the underlying assumption is that positive actions directed towards employees by employers contributes to 'the establishment of high quality exchange relationships that create obligations for employees to reciprocate in positive, beneficial ways' (Ko & Hur, 2014, p.177) that contribute to goal attainment by the organisation and job satisfaction for the employee (Brunetto et al., 2016a, Cropanzano and Mitchell 2005).

SET proposes two types of social exchange - perceived organizational support (POS) and leader-member exchange (LMX) (Brunetto et al., 2016a, Ko & Hur, 2014; Lee & Hong, 2011; Xerri, 2013). POS focuses on the exchange relationship between the employee and the

organisation whereas LMX emphasises 'the quality of exchange between the employee and the supervisor and is based on the degree of emotional support and exchange of valued resources' (Ko & Hur, 2014, p.177). It is argued that the quality of the exchange between employees and their manager reflects a degree of trust, loyalty and respect (Brunetto et al., 2016a; Maslyn & Uhl-Bien 2001; Ko & Hur, 2014). Where high quality exchange relationships develop under ideal circumstances, high LMX relationships within the workplace result in highly functional workplaces where everyone enjoys the benefits of a cohesive team (Brunetto et al., 2016a, Pellegrini & Scandura, 2008). In respect to nurses, the literature reported that as 'professionals, they can also expect mentoring from their supervisor and senior nurses' which enhances the LMX relationship (Brunetto et al. 2016a; Farr-Wharton, Brunetto & Shacklock 2011, p.1484).

Konovsky and Pugh (1994, p.657) suggest that '[e]conomic exchange is based on transactions, but social exchange relationships are based on individuals' trusting that the other parties to the exchanges will fairly discharge their obligations'. Ko and Hur (2014) propose that turnover intention is linked to psychological detachment from an organisation, thus strengthening their relationship with their manager should strengthen the connection of the employee to the organisation. When employees perceive their manager as trustworthy, these beliefs can extend to the organisation (Ko & Hur, 2014). From the SET perspective benefits would need to be associated with an exchange relationship, that is, the employee feels valued and supported when they perceive the benefit is in exchange for an attitude or behaviour on their part, thus reinforcing the reciprocal exchange relationship (Allen, Shore & Griffeth, 2003). Therefore, traditional benefits, which are those benefits available to all employees regardless of performance, are unlikely to be associated with POS (Ko & Hur, 2014). Consequently, if organisations want 'to build positive social exchange with their employees, employee benefits should be recognized as benefits beyond those typically offered by most organizations' (Ko & Hur, 2014, p.183).

Fairness and trust are situational factors critical to social exchange and partially account for citizenship behaviour (Konovsky & Pugh, 1994). Cropanzano and Mitchell (2005, p.890) question whether relationships are 'a goal to be achieved or a valuable benefit that one can bestow?' They suggest that it can be both a goal and a benefit, saying that once the transactional process is established, 'it is reasonable for relational benefits to be both a result and a resource for exchange' (Cropanzano & Mitchell, 2005, p.890). Furthermore, LMX affects the level of job satisfaction as well as organisational commitment of employees (Brunetto, Farr-Wharton & Shacklock, 2011, Epitropaki and Martin 1999; Janssen and van Yperen 2004).
SET focuses on relationships and perceived obligations which form the exchange relationship and provide a theoretical basis to further explore the remote health workforce. Where high POS

is observed, it is less likely to observe voluntary turnover (Allen, Shore & Griffeth, 2003, Eisenberger et al. 1990). Therefore, SET posits that because POS creates obligations for employees to support organisational objectives, it can be expected that high POS would result in lower turnover as reciprocity usually means that people feel obligated to help people who have helped them (Allen, Shore & Griffeth, 2003, Eisenberger et al. 1990; Wayne et al., 1997). SET offers a key theoretical evidence-base to examine the sustainability of a workforce, particularly retention and voluntary turnover because the 'exchange' and 'obligation' implies that the employee participates in the relationship. According to Allen, Shore and Griffeth, (2003, p.103) '[o]ne way for an individual to repay the organization is through continued participation.' Hence, POS can reduce voluntary turnover by encouraging continued membership in the organisation (Allen, Shore & Griffeth, 2003, Eisenberger et al. 1990). Consequently it is the employees' perceptions and behaviour that influence HR outcomes and long-term consequences, including workforce stability, organisational performance, and individual and societal wellbeing.

Psychological Contact Theory and Social Exchange Theory

PCT and SET have similar underlying principals; for example, when an individual perceives the organisation as failing to fulfil its obligations the individual will change their behaviour and attitudes towards the organisation (O'Donohue et al., 2007; Rousseau, 1995). Furthermore, researchers suggest that POS and the psychological contract are interdependent (Aselage & Eisenberger, 2003; Mallette, 2011). This is consistent with the findings from this literature review and supports the theoretical foundation for this thesis, that is, the integration of the complementing theoretical approaches will strengthen the depth of our understanding of the findings from the data analysis. Thus 'consideration of the implications of each theory for the other will provide a more extensive account of the employee-organization relationship than the consideration of the two theories in isolation' (Aselage & Eisenberger, 2003, p.492).
Social exchanges and reciprocity play a critical role in the psychological contract 'because mutual obligations, as social exchanges, form a psychological contract' (Bal, et al., 2008, p.145). Furthermore, Mallette (2011, p.529) found that the 'psychological contract and POS examine different components of the employee–employer social exchange relationship'. Mallette (2011) found that whether the employee's work pattern was voluntarily or involuntarily imposed, significantly influenced POS, and was significant for relational but not transactional psychological contracts, suggesting POS and the relational psychological contract are associated with employee-employer social exchanges, whereas transactional psychological contracts may not be influenced in the same manner by this social exchange. Finally, PCT and SET are consistent with the high commitment approach to HRM which promotes psychological links between employees and their organisation (Gould-Williams & Davies, 2005).

2.4.5 Summary: Management domain literature

In summary, the literature provided: 1) evidence of previous research in this area; 2) extant HR constructs that could inform the research questions; 3) insight into which management theories could assist data analysis; and 4) evidence-based research to inform a theoretical HRM framework for this thesis.

Researchers offered both similar and contrasting findings from which to draw conclusions. More specifically they provided an evidence-base to consider the frequently identified constructs to support the HRM approach for this thesis. The key HR constructs indentified through the literature review were:

- Autonomy
- Embeddedness
- Job Satisfaction
- Job Security
- Justice
- Leader-Member Exchange (Interpersonal relationships)
- Mastery
- Occupational Commitment
- Organisational Citizenship Behaviour
- Organisational Commitment
- Perception of Support (Trust, Loyalty)
- Person-Organisation Fit (Adjustment)
- Relatedness
- Work Conditions
- Work Engagement

In addition, the analysis found that leader-member exchange (LMX), embeddedness and person-organisation fit were related to commitment (Cho & Perry, 2012; Ko & Hur, 2014; Wright & Kehoe, 2008). Similarly, LMX, perceived procedural justice and trust were related to job satisfaction (Cho & Perry, 2012; Ko & Hur, 2014). Mastery and autonomy were related to POS (Aselage & Eisenberger, 2003; Mallette, 2011; Gagne & Deci, 2005) and POS is an antecedent of OCB (Coyle-Shapiro & Kessler, 2000). Furthermore OCB may be explained through procedural justice (Coyle-Shapiro & Kessler, 2000). Finally, job satisfaction and commitment are associated with procedural justice (Knights & Kennedy, 2005). While analysis of the literature produced emergent constructs, it did not provide clarity about their antecedents, associations or relationships. However, analysis of the management literature did emphasise

the interrelatedness of the HR constructs and the significance of context for the remote health workforce.

The Harvard Analytical Framework for HRM guided analysis and enabled the theories to be considered in terms of their influence on HRM policy choices and the associated HR outcomes. Analysis of the management domain literature culminated in an overview of the long term consequences of such HRM policy choices. Most importantly, it showed that the most likely HR constructs linked to long-term consequences of HRM policy choices on turnover and retention are: job satisfaction and work engagement.

Based on the findings from the management domain literature review, a theoretical HRM Framework was developed to guide data analysis for this thesis (Figure 2.4). The HR constructs that emerged from the analysis of the literature were presented in this chapter. Further analysis of the HR outcomes (commitment, competence, congruence, and cost effectiveness) resulting from HRM policy choices (employee influence, reward systems, work systems, and human resource flow) shaped the central diagram. The overlapping circles, each representing one of the four HR outcomes, demonstrate the relationships across the HR outcomes. For example, the construct, 'POS' is associated with the HR outcomes of commitment and competence. In the centre, the construct LMX, is associated with all four HR outcomes (commitment, competence, congruence, and cost effectiveness). The underpinning theoretical foundation of this thesis, PCT and SET, and the HRM approach used for this thesis are consistent with these findings suggesting that the employee-employer relationship is central to employee retention and turnover. Furthermore, these findings are consistent with those found in the health domain literature.

2.5 Emergent Themes and HRM Theories: Perspectives Collide

The HRM theories identified in the previous section were cross-referenced with the findings from the health domain literature review to ensure that the theories identified provided sufficient theoretical coverage of the factors identified by remote health professionals (Appendix D). Then the findings from each literature review were synthesised to create the Theoretical Integrated HRM Framework (TI-HRM) to guide this thesis (Figure 2.5). This integrated framework considers the findings from each literature review and presents the findings in a meaningful format for this thesis.

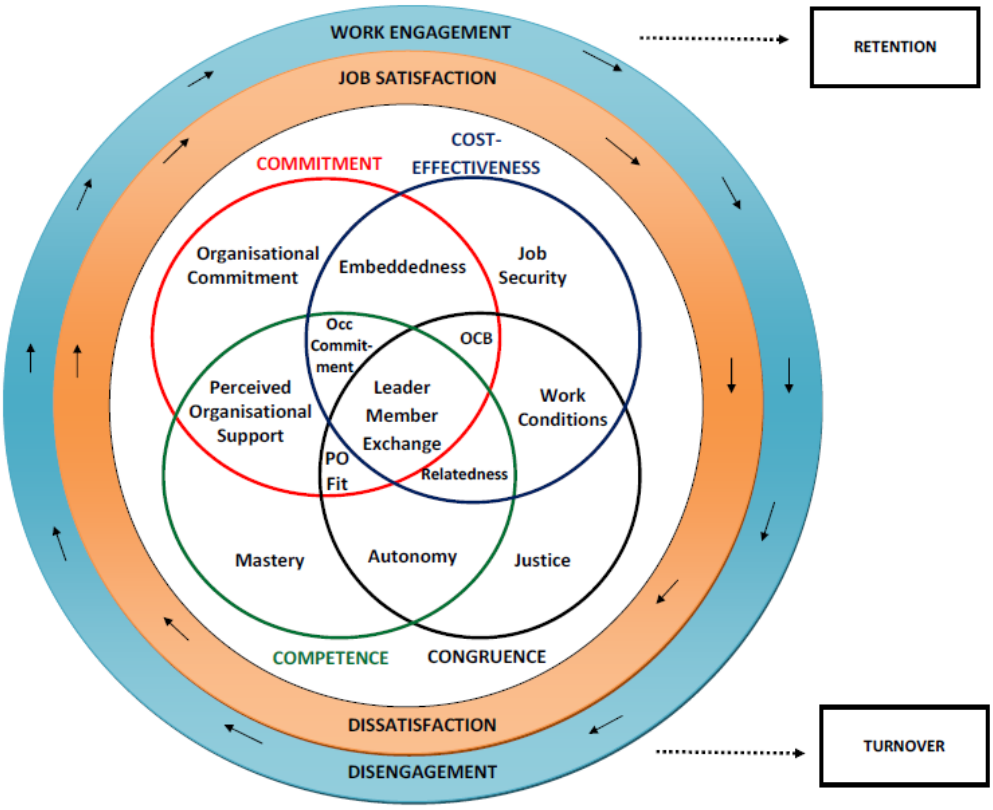


Figure 2.4: Theoretical HRM Framework of the extant concepts from analysis of the management domain literature

The Theoretical Integrated HRM (TI-HRM) Framework

The proposed Theoretical Integrated HRM Framework, from this point forward referred to as TI-HRM Framework, builds on the work of Beer et al. (1984) using the key areas of the Harvard Analytical Framework for HRM to ensure a holistic HRM approach. The TI-HRM Framework (Figure 2.5) includes the specific factors frequently reported in both literature reviews. The Conceptual Framework from the health domain literature provided the overall structure with the organisational and professional factors overlapping within the contextual environment. This overlap, explained earlier as the 'workplace' is the space occupied by the employee when working in a remote region. This space, 'the workplace', is also where the Theoretical HRM framework is placed, for it is in 'the workplace' where HRM policy choices have their greatest impact, that is, the location where the HR outcomes are experienced. The interaction of these constructs in 'the workplace' impact on job satisfaction and work engagement and depending on whether this impact is positive or negative, the consequences influence workforce stability. Put simply the person stays (retention) or leaves (turnover). Moving to the left the HRM policy choices are contained within the 'Organisational' theme, but

sit on the cusp of the 'Contextual' environment, as HRM policy choices may be made internally or externally of the remote context.

The TI-HRM Framework is the culmination of analysis of two separate but complementary bodies of literature. The synthesis of these findings into one framework to guide data analysis for this thesis supported the holistic HRM approach. Furthermore it ensured that the HRM approach considered the health domain's contribution to examining turnover and retention in remote regions. The systematic, intense and rigorous process resulted in the development of the TI-HRM Framework, which has been customised to subsequently create a more robust framework to guide analysis of the data for this thesis.

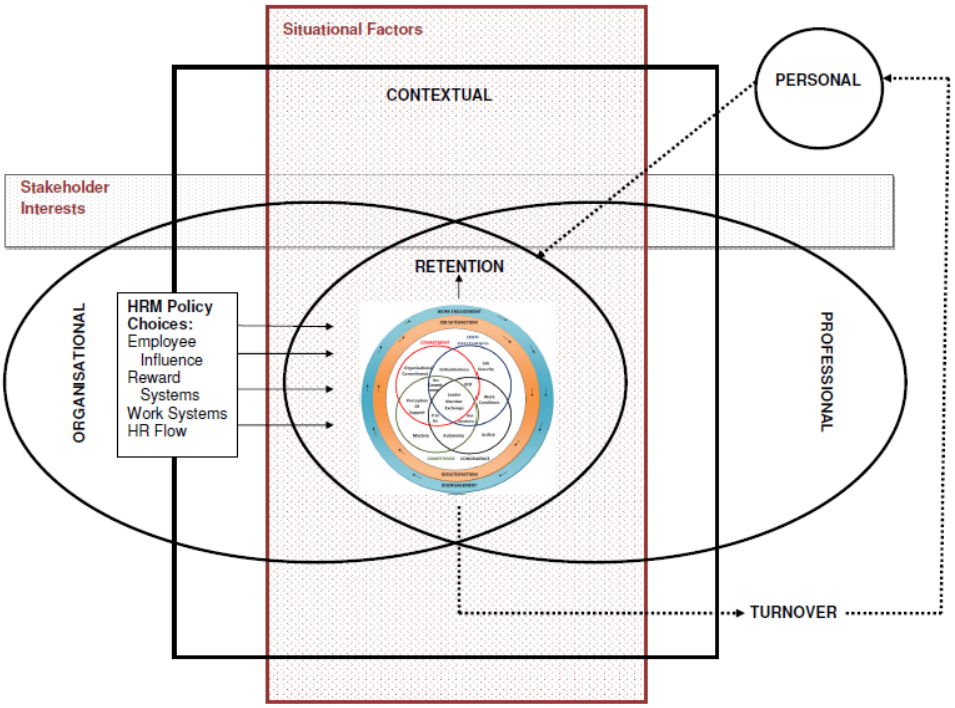


Figure 2.5: Theoretical Integrated HRM (TI-HRM) Framework

2.6 Conclusion

This chapter presented two separate but complementary literature reviews. The health domain literature review suggested that HRM theory can be used to further investigate the challenges and rewards of working in remote areas to provide further empirical findings to this important area of research. The subsequent management domain literature review confirms that the HRM perspective has much to offer.

This complementary approach contributed by providing evidence where there were gaps in the literature. Furthermore, the existing focus of examining turnover through the narrative of former employees is complemented by the HRM approach with its focus on current employees and developing positive relationships and improved performance outcomes with current workforces.

The underpinning theories selected for this thesis, PCT and SET, are complementary theories and together provide a stronger theoretical foundation for this thesis. The review of the management literature identified many theories that not only complement the underpinning theories but will support deeper analysis of the data in regard to the HRM policy choices and the subsequent HR outcomes and long term consequences. As a result the HR constructs incorporated into the TI-HRM Framework, are representative of an HRM approach and the rewards and challenges identified by remote health professionals, both of which aim to increase job satisfaction and work engagement resulting in reduced voluntary turnover and improved workforce sustainability.

2.7 Chapter summary

- HRM provides complementary approaches to those of the health domain for analysing remote workforce sustainability.

- Workforce challenges in remote regions and remote Indigenous communities are more similar than they are different

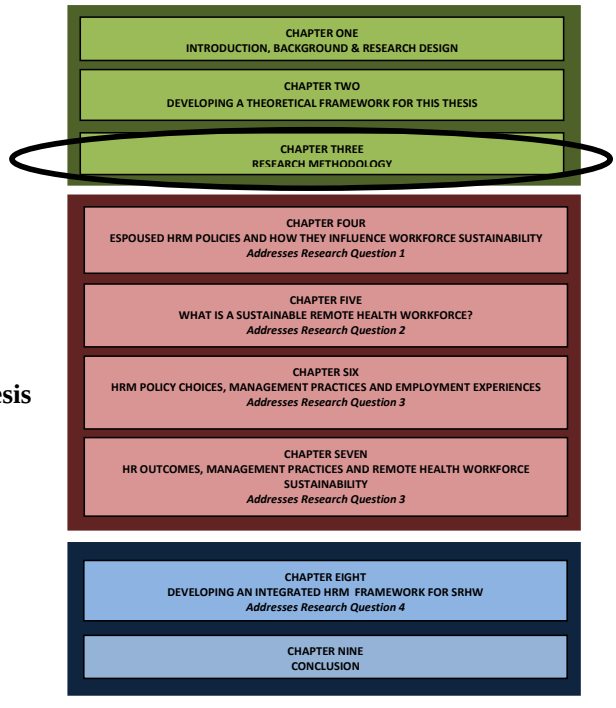
- Evidence-based HRM theory can be used to investigate workforce challenges for remote health organisations.

- The key themes identified through the health domain literature review were: Personal; Professional; Organisational; and Contextual.

- The key constructs indentified through the management domain literature review appropriate for this thesis were: Autonomy; Embeddedness; Perceived Organisational Support; Job Satisfaction; Justice; Leader-Member Exchange; Mastery; Person-Organisation Fit; Occupational Commitment; Organisational Citizenship Behaviour; Organisational Commitment and Work Engagement.

- The Theoretical Integrated HRM (TI-HRM) framework provides a sound framework to guide data analysis for this thesis.

Chapter Three: Research Methodology



3.0 Chapter overview

This chapter presents the philosophical and methodological approach used for this thesis. The mixed methods research design is considered and the benefits presented, thus justifying it as the most suitable methodological approach for this thesis. Similarly, pragmatism is examined and evidence provided which supports that it is the most suitable paradigm for this thesis, in terms of its suitability within the mixed methods research framework and, more specifically, it is consistent with the methodological and the philosophical worldview of the researcher.

The chapter then presents the general mixed methods research design (Triangulation Design: Convergence Model), the specific research design for the thesis, the quantitative and qualitative methods for data collection, analysis and interpretation, including the validity and reliability of each method. The chapter concludes with an examination of the researcher's background and experience, locating the researcher within the research and thus acknowledging the influence of the researcher on this thesis. Finally, the key points for chapter three are summarised.

3.1 Introduction

> *Research questions are not inherently "important," and methods are not automatically "appropriate." Instead, it is we ourselves who make the choices about what is important and what is appropriate, and those choices inevitably involve aspects of our personal history, social background, and cultural assumptions ... So we need to continue the reflexive outlook toward what we choose to study and how we choose to do so* (Morgan, 2007, p.69).

Researchers choose topics to investigate for a variety of reasons; however, those most invigorating are the ones that capture the passion of the researcher. This thesis examines a research issue that has fascinated the researcher for some time, and as such, this passion is entrenched in every aspect of this research. It was crucial that the research design and methodology were congruent with the author's values and philosophy; and practical given that the research sample worked in geographically isolated regions of remote northern Australia.

This chapter is structured such that, it commences with an examination of the methodological foundation for the research, introducing mixed methods research (MMR) in terms of the philisophical methodologies – paradigms, ontologies and epistimologies. Then, it explores the pragmatism paradigm and the suitability of the research questions for MMR. The suitability of the MMR method is highlighted in the research design for this thesis where the 'mixing of methods' is central to data collection, analysis and interpretion.

3.2 Paradigm, Ontology and Epistemology

> *Within the science studies, the consensual set of beliefs and practices that guide a field is typically referred to as a "paradigm."* (Morgan, 2007, p.49)

Thomas Kuhn coined the term *paradigm* (Johnson et al., 2007) popularising 'paradigms as a way to summarize researchers' beliefs about their efforts to create knowledge' (Morgan, 2007, p.50). However, Kuhn's work left some uncertainty and subsequently, the term differs in meaning for researchers. In fact, Morgan's (2007) review of the history of research methodology identified four distinct meanings: paradigms as worldviews; paradigms as epistemological stances; paradigms as shared beliefs among members of a specialty area; and paradigms as model examples of research. Regardless, they all 'treat paradigms as shared belief systems that influence the kinds of knowledge researchers seek and how they interpret the evidence they collect' (Morgan, 2007, p.50). The four meanings differ in the level of generality of that belief system, with Morgan (2007, p.54) suggesting that 'these four versions of the paradigm concept are not mutually exclusive. Nor is one of them right and the others wrong. Instead, the question is which version is most appropriate for any given purpose.' Hence, paradigms influence 'the topics researchers choose to study and how they choose to conduct that work' (Morgan, 2007, p.52).

Morgan (2007) suggests that *worldviews* and *shared understandings of reality* are synonyms for paradigms. Furthermore, Guba and Lincoln (1994, p.116) maintain that no researcher 'ought to go about the business of inquiry without being clear about just what paradigm informs and guides his or her approach' (in Morgan, 2007, p.63). Similarly, Morgan (2007, p.52) drawing on the connection of paradigms as worldviews and the subsequent issues associated with the combining of qualitative and quantitative methods says that there are 'many factors that go into decisions about what to study and how to do such a study'.

Paradigms are considered 'metaphysical frameworks that guide researchers in the identification and clarification of their beliefs with regard to ethics, reality, knowledge, and methodology' (Mertens, 2010, p.469). In this sense, paradigms are concerned with higher level belief systems and the way they influence research, including the researchers beliefs about the nature of reality and 'fundamental issues about the knowability of this reality - about ontology and epistemology' (Denscombe, 2008, p.275). In fact, Johnson and Onwuegbuzie (2004, p.24) define a research paradigm as 'a set of beliefs, values, and assumptions that a community of researchers has in common regarding the nature and conduct of research'. The beliefs include, but are not limited to, ontological beliefs, epistemological beliefs, axiological beliefs, aesthetic beliefs, and methodological beliefs. The best known approach for comparing paradigms is

'through a familiar trilogy of concepts from the philosophy of knowledge: ontology, epistemology, and methodology' (Morgan, 2007, p.57). While 'this tripartite linkage of ontology, epistemology, and methodology is the most common version' (Morgan, 2007, p.58) other researchers also highlighted the influence of axiology (Creswell, 1998; Morgan, 2007).

It is through this examination of beliefs and the subsequent philosophical considerations that has lead to mixed methods being recognised as a paradigm of its own merit. Thus, mixed methods research has evolved and is considered to have its own worldview, vocabulary and associated research techniques (Tashakkori & Teddlie, 2003). Johnson et al. (2007, p.113) describe it as 'an approach to knowledge (theory and practice) that attempts to consider multiple viewpoints, perspectives, positions, and standpoints (always including the standpoints of qualitative and quantitative research)'.

What's more, the acknowledgement of 'the value of both quantitative and qualitative research methods and the knowledge produced by such research' furthers our understanding of the issue being investigated (Feilzer, 2010, p.14). In addition, Morgan (2007, p.52) notes that by 'combining qualitative and quantitative methods, paradigms as epistemological stances have had a major influence on discussions about whether this merger is possible, let alone desirable' Consideration of these philosophical aspects advances the methodological debate.

Typically, '[c]onstructivism and poststructuralism are connected to qualitative research, and postpositivism is connected to quantitative research' (Johnson et al., 2007, p.125). Mixed methods researchers, do not 'dwell on epistemological and ontological issues and exhibit a clear pragmatism in their work' (Bryman, 2007, p.17). Ultimately, pragmatism sidesteps the quantitative/qualitative divide by highlighting that the more important question is whether the research helps the researcher to find out what they wanted to know (Feilzer, 2010).

Mixed methods researchers argue that pragmatism is the most useful philosophy to support MMR (Johnson et al., 2007; Morgan, 2007). Pragmatism offers an epistemological justification and logic for mixing approaches and methods. Furthermore, pragmatists reject the incompatibility argument and counter that 'research paradigms can remain separate, but they also can be mixed into another research paradigm' (Johnson et al., 2007, p.125)

Pragmatism is considered 'the philosophical partner for the mixed methods approach' (Denscombe, 2008, p.273). The assumptions associated with pragmatism underpin MMR and differentiate it from pure quantitative and pure qualitative approaches (Cameron & Molina-Azorin, 2011; Denscombe, 2008; Johnson et al., 2007; Johnson & Onwuegbuzie, 2004).

Teddlie and Tashakkori (2009, p.93) suggest that ‘pragmatism is a commitment to uncertainty, an acknowledgement that any knowledge ‘‘produced’’ through research is relative and not absolute, that even if there are causal relationships they are ‘‘transitory and hard to identify’’’. This commitment to uncertainty is an appreciation that relationships are fluid and unpredictable (Feilzer, 2010).

3.3 Pragmatism

> *From a pragmatic perspective, the primary issue is to determine what data and analyses are needed to meet the goals of the research and answer the questions at hand* (Bazeley, 2009, p.203).

The mixed methods paradigm is not alone in using pragmatism as its philosophical underpinning. Pragmatism ‘provides a recurrent theme underlying forms of research that can be traced back throughout the last century’ (Denscombe, 2008, p.275). Johnson et al., (2007) report that the classical pragmatic philosophers, Peirce, James, and Dewey, were interested in examining practical consequences and empirical findings to help in understanding the importance of philosophical positions, particularly, ‘which action to take next as one attempts to better understand real-work phenomena’ (Johnson & Onwuegbuzie, 2004, p.17).

Morgan (2007, p.67) suggested that ‘it is not the abstract pursuit of knowledge through “inquiry” that is central to a pragmatic approach, but rather the attempt to gain knowledge in the pursuit of desired ends’ (Morgan, 2007, p.69). Therefore, pragmatism concerns ‘how much shared understanding can be accomplished, and then, what kinds of shared lines of behavior are possible from those mutual understandings’ In other words, ‘a pragmatic approach reminds us that our values and our politics are always a part of who we are and how we act’ (Morgan, 2007, p.69). It is these aspects of our worldviews and our beliefs that direct attention to investigating the factors that have a significant impact on what and how we choose to conduct research (Morgan, 2007). This means that pragmatism offers a practical form of inquiry. Furthermore, ‘it offers a method for selecting methodological mixes that can help researchers better answer many of their research questions’ (Johnson & Onwuegbuzie, 2004, p.17).

Qualitative Research ‘emphasizes an inductive–subjective–contextual approach, whereas Quantitative Research emphasizes a deductive–objective–generalizing approach’ (Morgan, 2007, p.72). However, problems may be encountered when applying these characteristics as absolute in empirical research. Hence, MMR uses a pragmatic system or method of philosophy (Johnson & Onwuegbuzie, 2004). MMR provides a logic of inquiry that includes ‘the use of induction (or discovery of patterns), deduction (testing of theories and hypotheses), and

abduction (uncovering and relying on the best of a set of explanations for understanding one's results)' (Johnson & Onwuegbuzie, 2004, p.17). In essence, pragmatism seeks to connect theory and methods. The pragmatic approach uses *abductive* reasoning, moving between induction and deduction, 'first converting observations into theories and then assessing those theories through action' (Morgan, 2007, p.71). Finally, pragmatism can overcome issues of incommensurability, because in a pragmatic approach, 'there is no problem with asserting both that there is a single "real world" and that all individuals have their own unique interpretations of that world' (Morgan, 2007, p.72).

3.4 Mixed Methods Research

> *[M]ixed methods research represents research that involves collecting, analyzing, and interpreting quantitative and qualitative data in a single study or in a series of studies that investigate the same underlying phenomenon* (Leech & Onwuegbuzie, 2009, p.265).

MMR approaches are often described as being the third major research approach together with qualitative and quantitative research (Cameron, 2011; Denscombe, 2008; Johnson et al., 2007; Onwuegbuzie & Leech, 2005; Tashakkori & Teddlie, 2003). This is contested by purists, with both quantitative and qualitative purists viewing their paradigms as ideal for research, arguing that 'qualitative and quantitative research paradigms, including their associated methods, cannot and should not be mixed' (Johnson & Onwuegbuzie, 2004, p.14). Furthermore, they, implicitly if not explicitly, advocate the incompatibility thesis (Howe, 1988).

A period of methodological examination which is often referred to as the 'paradigm wars' and is generally considered to have commenced in the 1990s culminated in the acceptance of MMR (Brannen, 2009; Cameron & Molina-Azorin, 2011). A concerning feature of the paradigm wars was the focus on the differences, which lead to two research cultures, with one claiming superiority of 'rich observational data' and the other the superiority of 'hard, generalizable' data (Johnson & Onwuegbuzie, 2004). In contrast, MMR recognises that '*both* quantitative and qualitative research are important and useful' (Johnson & Onwuegbuzie, 2004, p.14).

Hence, the MMR approach (or paradigm) has emerged as the acceptable method for those studies where the integration of qualitative and quantitative methods best addresses the research question and thus the research problem (Bazeley, 2009; Johnson et al., 2007). Therefore, the 'merits of mixed methods research are now well established, although, even in social research, not all would agree that the era of the single method study is past' (Thurston et al., 2008, p.3). Thus, the inclusion of MMR amongst business and management academics is increasing;

however, there are limited exemplars (Bryman, 2007; Cameron & Molina-Azorin, 2011; Johnson et al., 2007). Others reluctantly acknowledge that it is 'possible to blend elements of one paradigm into another, so that one is engaging in research that represents the best of both worldviews' (Guba & Lincoln, 2005, p.201).

Methodologists Creswell, Tashakkori, Teddlie, Johnson, Onwuegbuzie, Greene and Morgan have provided the foundations for MMR (Cameron & Molina-Azorin, 2011; Denscombe, 2008), and it has 'developed rapidly in the last few years' (Cameron & Molina-Azorin, 2011, p.286). This thesis contributes to the evidence-base for MMR in the field of management.

The discussion continues around issues, such as, whether MMR is a research approach, a methodology, or a paradigm (Denscombe, 2008; Tashakkori & Creswell, 2007). There are inconsistencies in the way MMR is conceptualised, therefore there is no single definition of MMR; however, several researchers provide definitions that shape our understanding of mixed methods, including when and how it should be used (Tashakkori & Creswell, 2007; Thurston et al., 2008).

Creswell and Plano Clark (2007, p.5) provided the most comprehensive definition:

> *Mixed methods research is a research design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical assumptions that guide the direction of the collection and analysis of data and the mixture of qualitative and quantitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems that either approach alone.*

Further definitions build on the definition proposed by Creswell and Plano-Clark and seek to explain the aspects of MMR that can be 'mixed'. For example, Cameron and Molina-Azorin, (2011, p.256) explain that 'mixed methods studies can either combine methods from different paradigms or use multiple methods within the same paradigm, or multiple strategies within methods.' Likewise, Johnson et al., (2007, p.122) suggest that MMR lies on a continuum with different ways of mixing methods, at one end there is 'the collection of both qualitative and qualitative data (e.g. Creswell)', then there are those who 'define mixed methods research as potentially involving mixing at all stages (e.g. Bazeley, Tashakkori and Teddlie)' through to those who include 'the mixing of methodological worldviews and language' (e.g. Johnson and Onwuegbuzie). Finally, Yin (2006, p.41) acknowledges MMR being where the researcher

mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts, or language into a single study', reminding us that it is this focus on a single study that is significant in mixed methods research.

However, it is the definition by Hallie Preskill (Johnson et al., 2007, p.121) that most closely describes the methodological approach used in this thesis:

> *Mixed methods research refers to the use of data collection methods that collect both quantitative and qualitative data. Mixed methods research acknowledges that all methods have inherent biases and weaknesses; that using a mixed method approach increases the likelihood that the sum of the data collected will be richer, more meaningful, and ultimately more useful in answering the research questions.*

One aspect of MMR that is not contested is that it is only used when it is the approach that will best answer the research question. It must be a purposively designed research study that will benefit from the use of both qualitative and quantitative research methods. Therefore, 'the combination of both provides a more complete picture of the phenomenon being studied' (Cameron, 2011, p.254). Furthermore, MMR 'offers an important approach for *generating* important research questions *and* providing warranted answers to those questions' (Johnson et al., 2007, p.129).

3.5 Mixed Methods Research Stance

Creswell and Plano Clark (2007) describe three stances for MMR and suggest that the researcher clearly identify their stance. These stances include: there is one best paradigm (Pragmatism); multiple paradigms can be used; and paradigms relate to the type of MMR design implemented (Creswell & Plano Clark, 2007). This thesis took the stance that 'there is one best paradigm or world view that best fits mixed methods research' (Creswell & Plano Clark, 2007, p.26). For this reason, pragmatism was the paradigm within which the research for this thesis was conducted.

This stance is consistent with the author's beliefs that it is difficult to hold more than one worldview at any one time when undertaking research and even if it was possible one would surely dominate. As such, the author subscribes to the belief that, within the pragmatism paradigm; both qualitative and quantitative methods can be used in one study provided that the research question can be more fully answered through a pragmatic MMR approach.

3.6 The Mixing of Methods – Benefits of the MMR Approach

> *Quantitative and qualitative components can be considered ''integrated'' to the extent that these components are explicitly related to each other within a single study and in such a way as to be mutually illuminating, thereby producing findings that are greater than the sum of part* (Woolley, 2009, p.7).

A MMR approach is used when the 'research question(s), suggests that mixed methods research is likely to provide superior research findings and outcomes' (Johnson et al., 2007, p.129). Similarly, 'mixed methods research questions demand the use and integration of quantitative and qualitative methods and approaches' (Tashakkori & Creswell, 2007, p.207; Woolley, 2009). In other words, the integrated findings should provide a richer understanding than a single level of analysis, or the sum of the individual quantitative and qualitative methods (Bryman, 2007; Molina-Azorı´n, 2011; Woolley, 2009). More specifically, the research questions require MMR because they cannot be adequately answered by either qualitative or quantitative research methods in isolation. The mixing of methods offers more meaningful findings through the integration of the methodologies, data analysis and interpretation (Bryman, 2007; Creswell & Plano Clark, 2007; Molina-Azorı´n, 2011). For MMR there is a specific focus on the application of the method to the research question(s).

This thesis benefits from MMR, which provides a complementary approach combining qualitative and quantitative methods, to answer the research questions in a manner that is better than either method alone. Jick (1979, p.602) proposed 'that qualitative and quantitative methods should be viewed as complementary' as mixing methods can overcome the deficiencies of single method designs. Methodological congruence 'refers to the idea that multiple parts of the study should be planned according to the ways of thinking underpinning the method' (Thurston et al., 2008, p.4). Thus, the fit between the research question and the methods, and the fit between the method and the data, should be congruent. According to Thurston et al. (2008, p.4), 'the complexity of the study, the goals of the study, and the research questions that focus the study must all be taken into consideration.'

The most common reasons for undertaking MMR include: improving the breadth or depth of research; corroborating findings; enhancing understanding; validating findings from another approach; producing more comprehensive findings; gaining a fuller and deeper understanding; and providing richer, more meaningful answers to research questions (Johnson et al., 2007; Johnson & Onwuegbuzie, 2004; Molina-Azorı´n, 2011; Woolley, 2009). Additionally, MMR has the potential to meet the needs of multiple audiences through its qualitative and quantitative approaches (Molina-Azorı´n, 2011). In fact, Johnson and Onwuegbuzie (2004) suggest that

there are five rationales for MMR: triangulation; complementarity; initiation; development; and expansion. Triangulation is the central rationale for use of MMR in this thesis as analysis of the data seeks convergence and corroboration of the findings using different methods to study the same phenomenon (Johnson & Onwuegbuzie, 2004). In addition, other rationales such as complementarity (the enhancement and clarification of the findings from one method with results from the other method); and development (the findings from one method inform the other method), are equally beneficial in justifying the rationale for the MMR design.

The benefits of MMR offset the drawbacks and as such MMR can answer a broader and more complete range of research questions with the researcher not being 'confined to a single method or approach' (Johnson & Onwuegbuzie, 2004, p.21). MMR adds 'insights and understandings that might be missed when only a single method is used', for example 'numbers can be used to add precision to words' (Johnson & Onwuegbuzie, 2004, p.21). One of the main strengths of MMR is that by using both qualitative and quantitative research methods each method can be used to 'overcome the weaknesses in the other (Johnson & Onwuegbuzie, 2004, p.21). This can 'provide stronger evidence for a conclusion through convergence and corroboration of findings' (Johnson & Onwuegbuzie, 2004, p.21).

Furthermore, 'linking the quantitative and qualitative components effectively is the basis for producing integrated findings that are greater than the sum of their parts' (Woolley, 2009, pp.22-23). While integration can occur in individual stages or throughout the research process (Bryman, 2007; Woolley, 2009; Yin, 2006) the concurrent, triangulation design best suits this thesis when the data is integrated both within and between methods to fully utilise the benefits of mixed methods. Moreover, the complexity of the issues examined in this thesis, the potential theoretical and practical contribution it offers and the genuine workforce challenges it seeks to inform, lends this research to a pragmatic approach that includes integrating methods to produce the richest data available to answer the research questions. Despite the complexity of the remote context, this rich data was apparent through the significance of the statistical findings contained in the quantitative data and the comprehensiveness of the narrative that emerged from the qualitative data. As such, it was in the development of a framework that is pragmatic in its application where the MMR approach used for this thesis provided the greatest contribution.

When considering the weaknesses of mixed methods, researchers concede that it 'can be difficult for a single researcher to carry out both qualitative and quantitative research' (Johnson & Onwuegbuzie, 2004, p.21), which is usually more time consuming than a single method approach. In addition, the MMR methodology for management research is still developing and consequently, there are limited publications in this field (Cameron, 2011; Johnson et al., 2007).

In summary, the research methods must be selected because they are congruent with the phenomenon being researched. Molina-Azorı´n (2011, p.7) explains that an 'important consideration prior to designing and conducting a mixed methods study is whether a mixed methods approach, as compared with monomethod designs, best addresses the research questions.'

3.7 Mixed Methods Research Design for this thesis

> *[I]t was the increasing interest in combining qualitative and quantitative methods that led to calls for greater clarity about the linkage between philosophical commitments at the so-called paradigm level and practical procedures at the level of data collection and analysis* (Morgan, 2007, p.64).

This thesis used simultaneous triangulation by analysing both qualitative and quantitative data that was collected concurrently. Johnson et al. (2007) discuss simultaneous triangulation which is the simultaneous use of both qualitative and quantitative methods with minimal interaction between the two data types during the data collection stage; however, during the interpretation stage the findings are complementary.

In MMR, the data can be mixed at different levels as long as they are 'mixed in ways that offer the best opportunities for answering important research questions' (Johnson & Onwuegbuzie, 2004, p.16). Thus, mixed methods may be partially or fully mixed. This thesis integrates the data at several levels and therefore is described as a fully mixed concurrent equal status research design. Leech and Onwuegbuzie (2009, p.270) provide the following definition:

> *A fully mixed concurrent equal status design involves conducting a study that mixes qualitative and quantitative research within one or more or across the following four components in a single research study: the research objective, type of data and operations, type of analysis, and type of inference. In this design, the quantitative and qualitative phases are mixed concurrently at one or more stages or across the components. Both elements are given approximately equal weight.*

3.7.1 Research Questions

Woolley (2009, p.8) describes MMR questions as those 'that ask either what and how or what and why'. The research questions for this thesis are consistent with those associated with mixed methods research. More specifically, the research questions ask what and how; requiring a mix of qualitative and quantitative methods to answer them.

3.7.2 Research design

A Triangulation Design: Convergence Model (Tashakkori & Teddlie, 2003) (Figure 3.1) was used for this thesis to 'obtain different but complementary data on the same topic (Creswell & Plano Clark, 2007, p.63). Qualitative data was collected through interviews which were analysed separately. Similarly, the qualitative data collected from the online questionnaire were analysed separately. At the same time, the quantitative data was collected and analysed separately. The research design for this thesis is described using the MMR notation system as QUAN + QUAL, signifying that the methods are afforded equal weighting and that the data is collected concurrently.

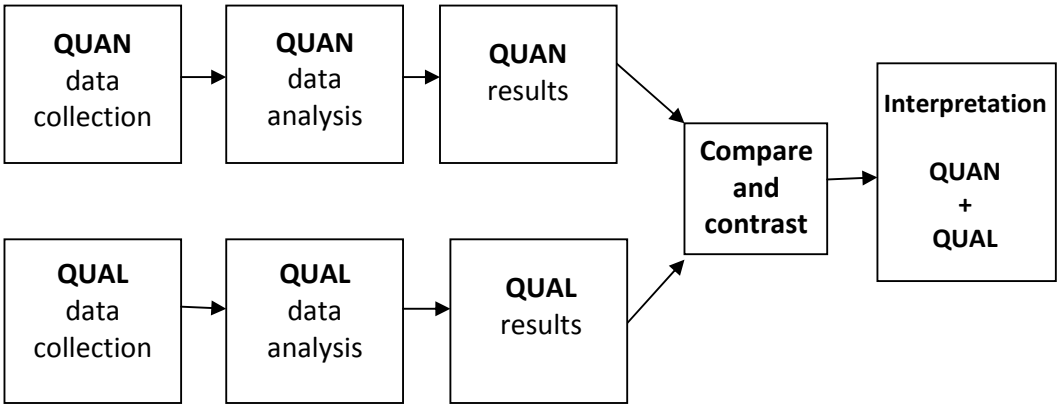


Figure 3.1: Triangulation Design: Convergence Model (Creswell & Plano Clark, 2007, p.63)

3.7.3 Interpretation

Johnson et al. (2007, p.128) explain that the objective of MMR design is to design studies that 'diverge, where needed, and converge, where needed, in a way that results in overall or total design viability and usefulness'. It is difficult for research to be completely objective, regardless researchers attempt to minimise the negative impacts of subjectivity on their research. While the subjectivity of qualitative research is clear, particularly with self-reported data there are examples of subjectivism in quantitative research, such as 'deciding what to study (i.e. what are the important problems?), developing instruments that are believed to measure what the researcher views as being the target construct, choosing the specific tests and items for measurement, making score interpretations' as well as drawing conclusions and deciding which findings are significant and which findings to publish (Johnson & Onwuegbuzie, 2004, pp.15-16).

These subjective states, which vary from person to person, are sometimes called 'realities'. These realities are perspectives, opinions or beliefs, therefore there are multiple realities

(Johnson & Onwuegbuzie, 2004). This thesis sought to understand the experience of the health professonal working in remote Australia, their perspective of their lived experience which in this thesis will be called the 'subjective reality' to reflect the philosophical position that there is no one truth, there are multiple truths based on the perspective of the research participant (Johnson & Onwuegbuzie, 2004). In considering the epistemology, the nature of knowledge for this thesis is subjectivist, and it is this assumption that contributed to the research design that triangulated subjective self-reported data with the more objective recruitment advertisements.

MMR sampling strategies are designed 'to generate a sample that will address research questions' using both qualitative and quantitative data (Woolley, 2009, p.86). Often using both probability and purposive sampling techniques they 'focus on both depth and breadth of information' (Woolley, 2009, p.86) providing both narrative and numeric data (Teddlie & Yu, 2007). Figure 3.2 outlines the MMR design for this thesis, including the quantitative and qualitative data collection methods which are discussed in the next section of this chapter.

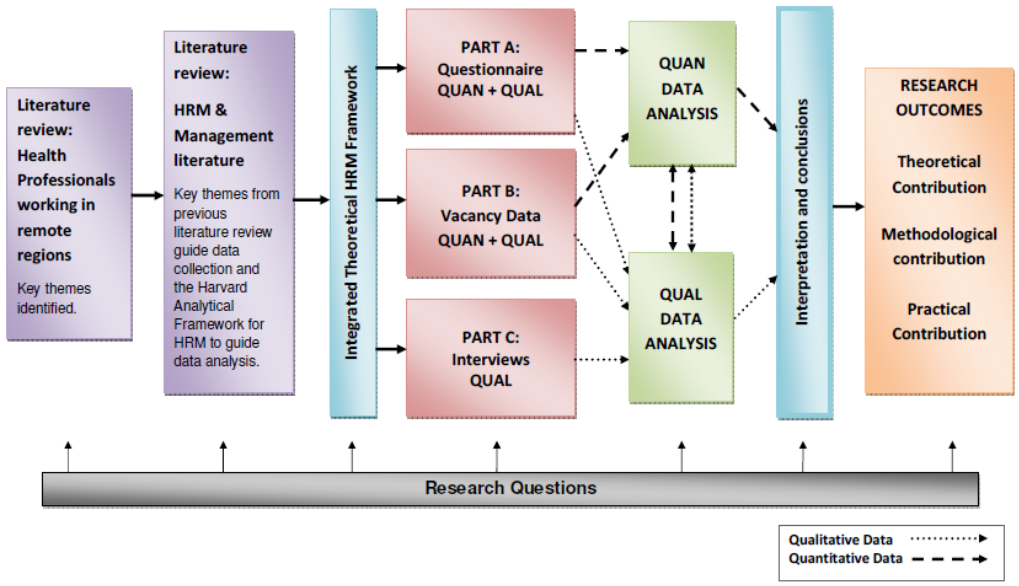


Figure 3.2: A Sustainable Remote Health Workforce: Mixed Methods Research Design

3.8 Quantitative Data – Methods

The quantitative data was collected from two data sources: an online questionnaire; and the review of the vacancy advertising data. Probability sampling methods were used, the benefits of which include: obtaining a random sample of individual participants within the defined group

(health professionals working in remote northern Australia); obtaining a collectively representative sample of the population; and a broad range of data which was usually numerical although narrative data was generated as well (Woolley, 2009). For this thesis, the population was selected prior to development of the research design to enable an appropriate research design to be developed including research methods that would generate a sample size that would be sufficient to answer the research questions. The quantitative data was analysed using SPSS22 (Statistical Package for the Social Sciences (SPSS), IBM, Armonk, NY) and Microsoft Excel 2003.

This thesis benefits from quantitative research methods which, in general, are: more cost-effective for generating larger sample sizes; less time consuming with statistical software that can aid analysis; associated with random sampling techniques; are fairly independent of researcher bias; and are often considered to 'have higher credibility with many people in power' when it comes to influencing decision makers (Johnson & Onwuegbuzie, 2004, p.19). However, they are not free of researcher bias as the pre-determined categories, and style of questioning is influenced by the researcher. Furthermore, the predetermined categories may not reflect all participants' views so the opportunity to uncover new information outside these categories is low. Similarly, the focus on theory testing rather than theory generation may be too constrictive. Finally, the knowledge produced may be too general.

3.8.1 Online Questionnaire

The remote health professional's perspective about their experience working in remote regions of tropical northern Australia was sought through an online questionnaire. This questionnaire generated both quantitative and qualitative data; however, only the quantitative data will be discussed in this section. Fifty-one organisations were invited to participate, which for this thesis meant offering their employee's the opportunity to complete the online questionnaire. Eight organisations elected to participate, thirteen declined to participate, and thirty did not respond to the invitation or subsequent attempts to contact them. Those that declined to participate, offered reasons including: they do not have an issue with retention and turnover, they do not actually employ anyone directly, or they wanted the data to be identifiable for their particular organisation. Frequently they had concerns about whether or not they would exist in one year for the second questionnaire distribution as the government funding cycles were heavily impacting on their employment security and felt that participation was unfair for their employees while such uncertainty remained prevalent.

The questionnaire was first distributed from January-July 2014, and then the same questionnaire was distributed from January-July 2015. The questionnaire (Appendix E) contained 60 Likert

scale questions, five short answer text questions, and questions collecting demographic data, information about remote incentives, employment conditions (e.g. oncall duties) and other aspects identified as pertinent in the literature review. The same questionnaire was sent twice (with the one year interval) for two reasons. Firstly, the high turnover of health professionals in remote regions meant that the sample size was greatly increased through a second distribution. In addition, it created a dataset (subset of the complete sample) of those health professionals who were still employed in the remote region one year later. The specific data analysis methods are discussed in more detail in chapters four and seven.

The questionnaire used Qualtrics software, which is designed for online questionnaires and provided a user friendly interface for participants and a centralised data collection point. The link to the online questionnaire was sent to health professionals working in remote regions through their internal email system by HR or a senior manager in two distinct periods. This method of distribution enabled a high level of confidentiality to be offered, with the researcher unaware of the potential participant's names, and the organisation unable to access the completed questionnaires. The non-identifiable data was one advantage of using this quantitative research method. In addition, the absence of direct contact between the researcher and the participants minimised potential bias.

3.8.2 Trial Online Questionnaire

The questionnaire was trialled prior to the first distribution. Trial participants provided feedback about the estimated time to complete the questionnaire, the ease with which they could understand the questions, and general feedback on the format and design of the questionnaire. In addition, this facilitated a live test of the software including the ease of use for participants and the format of the data for further analysis by the researcher. Overall, the trial participants noticed some minor concerns with the questionnaire format (e.g. the size of the boxes to enter text), an option to select 'none' if none of the options were applicable; and one person was unsure what was meant by the question 'I get carried away with my work'. The concern was discussed with the trial participant who felt that it was not a big issues, just a question they thought may be ambiguous. As this was an individual concern and the question has been validated as part of the UWES survey tool the question was left in the questionnaire; however, it was reviewed during preliminary analysis of the data. There were no issues evident after the first distribution of the questionnaire so the question remained.

Of interest was a concern raised by two trial participants who said 'The only statement that I was not certain on was when you mention employer and I was a little bit uncertain which employer you were referring to' (Trial participant 6) and another who said that 'some people

may have two or three people. For example, in my case, I do have two - clinical lead and team leader' they went on to say they were 'unsure how you could make this more clearer' (Trial participant 3). In other words these trial participants were concerned that those completing the questionnaire may be unsure about not only who their manager is, but also who their employer is, which provides further evidence of the importance of this MMR design. Through the MMR approach the qualitative data collection methods will enable further information for these types of concerns.

3.8.3 Recruitment Advertisements (Vacancy Advertising)

Recruitment advertisements from five recruitment websites were analysed from August 2013 to July 2015. This data collection commenced prior to the first distribution of the online questionnaire and ceased at the end of the second distribution of the online questionnaire. These websites were:

- Western Australia (WA) Government website (http://www.jobs.wa.gov.au)
- Northern Territory (NT) Government website (https://jobs.nt.gov.au/Search.aspx)
- Queensland Government website (https://smartjobs.qld.gov.au/jobtools)
- Seek (http://www.seek.com.au)
- CareerOne (http://careerone.com.au)

For each website, a search was conducted by region (Kimberley, NT Top End, North West Queensland and Far North Queensland), identifying all of the advertisements for vacancies in each region. Data were collected on the number of matches for each search, the number of these matches that met the inclusion criteria for the study (noted below), and the number that were new (not advertised the previous week). A copy of the advertisement and the position description (where available) were also collected.

Inclusion criteria

Advertisements were selected if they met the following criteria:

1. The position was in a region included in the study
2. The position involved contact with patients for treatment or to enable/assist patients to receive treatment; or the management of people who contact with patients for treatment or to enable/assist patients to receive treatment
3. They required a health-related qualification and/or experience in a role that provided healthcare services (as described in criterion two).

This quantitative data provided empirical evidence about the types of roles, their location, the incentives and employment conditions offered; all of which provide further evidence of the espoused HRM policies for remote regions. This data source was not self-reported and as such provided a source of reliable evidence to triangulate with the quantitative data from the online questionnaire and the narrative from the qualitative data. Furthermore, this data provided information about the labour market in this region that provided information about seasonal trends and statistical evidence to support the findings from the qualitative data. The quantitative data analysis techniques are discussed in more detail in chapter four.

3.9 Qualitative Data – Methods

The qualitative data was collected from three data sources: semi-formal interviews; the online questionnaire; and recruitment advertisements. Purposive sampling methods were used for the semi-structured interviews and a probability sampling method was used for the online questionnaire (as discussed previously). While a semi-formal interview style was used, a set of questions guided the interviews to improve the consistency in the way the questions were asked (Appendix F). The qualitative data was analysed using NVIVO10 (QSR International Pty Ltd, Melbourne, Australia).

Qualitative data was generated from the meaning the participant placed on the issue, and allowed the researcher to gain a greater depth of understanding on the topic. Therefore, it was useful for 'describing complex phenomena' (Johnson & Onwuegbuzie, 2004, p.20). In fact, qualitative data 'can describe, in rich detail, phenomena as they are situated and embedded in local contexts' identifying 'contextual and setting factors as they relate to the phenomena of interest' (Johnson & Onwuegbuzie, 2004, p.20) which benefitted this thesis in seeking to understand the experiences of remote health professionals and the phenomenon in the remote context. Unfortunately, the weaknesses of qualitative research methods include that: it is more expensive; it is difficult to test theories; it has lower credibility with some decision-makers; it usually takes more time to collect data; data analysis is time consuming; and the 'results are more easily influenced by the researcher's personal biases and idiosyncrasies' (Johnson & Onwuegbuzie, 2004, p.20). Furthermore the knowledge produced may not be generalised to other populations or contexts (Johnson & Onwuegbuzie, 2004); hence, it is the quantitative component of this study that was more likely to contribute to the generalisability of the findings.

3.9.1 Interviews

The purposive sampling method of snowballing was used to recruit participants for the interviews (Liamputtong, 2009). This method ensured that the sample contained participants that were categorised as managers, HR managers and health professionals with longevity (more than 5 years) working in remote regions. Participants were invited to participate in one of two ways: 1) the contact person at each of the participating organisations forwarded an email to eligible participants, that is those who met the above criteria, or put a notice in their newsletter with the researcher's contact details; or 2) participants passed the contact details of the researcher to someone they knew who met the criteria. The data collected through the interviews was re-identifiable; however, the researcher (and her supervisors), were the only ones to know their identity prior to data analysis. Regardless of the source of invitation, participants were not invited to participate directly if they were not known to the researcher, and for those known to the researcher, they were invited by email with ample opportunity to decline. Thus, participation was voluntary and confidentiality was preserved.

3.9.2 Online Questionnaire

The online questionnaire, discussed in the previous section, contained several questions for participants to answer using the text boxes provided. The data from these qualitative questions were analysed using thematic analysis and content analysis techniques. The methods of data analysis are described in more detail in chapters five and six. This data was analysed and interpreted alongside other qualitative data and as such provided a complementary data source to be triangulated with the other qualitative and quantitative data. Furthermore, this data was non-identifiable and with the exception of the wording of the question, it was not influenced by the researcher which minimised researcher bias.

3.9.3 Recruitment Advertisements (Vacancy Advertising)

The previous section described the data collection methods for the vacancy advertising data for this thesis. Advertisements and the role descriptions for management positions were analysed using thematic and content analysis techniques. The methods of data analysis are described in more detail in chapters four, five and six. The findings from this component are considered to have low researcher bias and were considered in conjunction with the other qualitative findings and interpreted using triangulation methods common to mixed methods research.

This thesis used a fully MMR design which involved 'the mixing of quantitative and qualitative techniques within one or more stages of the research process or across these. This means that the MMR extended across data sources, data collection methods and data analysis techniques

which were consistent with the intent of this thesis to take a pragmatic approach and to use the most suitable methods available to answer the research questions.

3.10 Validity, reliability and methods

While the use of MMR may be a developing practice for management academics, its use in the social sciences can be traced back decades (Denscombe, 2008; Jick, 1979; Johnson et al., 2007; Thurston et al., 2008). The work of Campbell and Fiske (1959) formalised using multiple research methods proposing that using more than one method in a validation process ensured 'that the explained variance is the result of the underlying phenomenon or trait and not of the method' (Jick, 1979; Johnson et al., 2007, pp.113-114). Similarly Bouchard (1976) argued that the convergence of findings from multiple methods enhances the belief that they are valid (Johnson et al., 2007; Molina-Azorı´n, 2011).

In the spirit of true MMR, each research method in this thesis was analysed separately with data collection and analysis techniques meeting the validity and reliability requirements of their respective research methods. Subsequently, the MMR approach undertaken met the requirement of MMR to ensure that the integration provided robust, reliable and valid findings for interpretation.

3.10.1 Quantitative data

A modified version of the three dimensional Ultrecht Work Engagement Scale (UWES-9) formed the first section of the online questionnaire. The literature review found many studies that had explored the internal validity of the UWES-9, concluding that the while research continues into the three dimensions of work engagement and their interactions, overall it is consistently reported that the UWES-9 produces Cronbach's Alpha higher than 0.80 (Balducci et al., 2010; Nerstad et al., 2010; Schaufeli et al., 2006; Schaufeli & Bakker, 2004). The Cronbach's alpha achieved for work engagement measure (based on UWES items) in this study was 0.887 suggesting reliability for this measure.

The subsequent sections of the online questionnaire included several modified questions from the Gould-Williams and Davies (2005) study to predict the effects of HRM practice on employee outcomes, and the Turnover Attachment Motive Survey (TAMS) which proposed a theoretical framework of eight motives that influence voluntary turnover (Maertz & Boyer, 2012) and was discussed in chapter two. The modified questions from the validated survey tools were considered an appropriate choice. The validation of the online questionnaire for this thesis was conducted to establish the validity and reliability of this questionnaire for this study with this particular population (Chang, Chiang & Han, 2012). In brief, a factor analysis was

conducted to determine whether the sixty questions could be summarised as a smaller set of factors and Cronbach's alpha calculated to establish that they were reliable measures. The measures used in this study had a Cronbach's alpha ranging from 0.63 to 0.93 indicating sound to high reliability. In addition, a path analysis was conducted and the appropriate fit indices used to examine how well the model fits the data. The quantitative data analysis techniques are discussed in more detail in chapter seven.

3.10.2 Qualitative data

Implementing established processes for data collection and analysis contributed to the reliability of the qualitative data (Creswell, 2009). Interviews were recorded and transcribed to ensure the participant's actual words were analysed improving the accuracy of the data and minimising the effect of researcher bias during analysis. While the researcher's observations were considered they were easier to differentiate and informed data interpretation as they moved beyond the transcript. Furthermore, participants were offered an opportunity to review the transcript to clarify or add any further information they thought relevant, often referred to as member-checking (Carlson, 2010).

Construct validity which includes 'adequate definitions and measures of variables' (Creswell, 2009, p.228) was established for the qualitative data through the development of a data dictionary to guide the coding (Appendix G). Creswell (2009, p.187) suggests that this is 'invaluable when multiple researchers are coding the data from different transcripts'. For this thesis, the qualitative data was coded and analysed by one researcher; however, members of the supervisory team coded a selection of transcripts to ensure consistency, and reliability with data analysis.

As some of the interview participants were known to the researcher, research strategies such as questions to guide the interview and consistent data analysis techniques minimised any influence this prior relationship had on the data collection. Independent analysis of the data by members of the supervisory team and the absence of substantial differences in the emerging themes from the interviews regardless of whether the participant was known or unknown to the researcher satisfied any concerns about researcher bias, and data reliability.

3.10.3 Triangulation

> *Above all, triangulation demands creativity from its user, ingenuity in collecting data and insightful interpretation of data* (Jick, 1979, p.610).

While 'Webb et al. are credited with being the first to coin the term *triangulation* [it] was Denzin (1978) who first outlined how to triangulate methods' (Johnson et al., 2007, p.114). Johnson et al. (2007) support Denzin's argument that 'the bias inherent in any particular data source, investigators, and particular method will be canceled [sic] out when used in conjunction with other data sources, investigators, and methods' (Denzin, 1978, p.14 in Johnson et al., 2007, p.115). Since then, several authors have noted that beyond cancelling out bias, the advantages of triangulation include: improving confidence in results; thicker, richer data; synthesis or integration of theories; and identification of contradictions (Collins, Onwuegbuzie & Sutton, 2006; Jick, 1979; Johnson et al., 2007; Leech & Onwuegbuzie, 2009).

This thesis embraced all four of the forms of triangulation described by Denzin (1978), that is, data triangulation, methodological triangulation, investigator triangulation and theory triangulation. Data triangulation has been discussed previously in this chapter. Methodological triangulation 'involves cross-checking for internal consistency (Jick, 1979, p.603; Thurston et al., 2008), for example, examine the same phenomenon from multiple perspectives enriching understanding though deeper or new perspectives (Jick, 1979; Thurston et al., 2008). Investigator triangulation includes using multiple researchers (Thurston et al., 2008), for example, the supervisory team member's review of the coding and analysis facilitated investigator triangulation for this thesis. Finally, in theoretical triangulation 'the researcher is not bound by one theory or explanatory framework when interpreting the data' (Thurston et al., 2008, p.3), for example, the complementary theoretical foundation for this thesis, social exchange theory and psychological contract theory provide theoretical triangulation.

> *The complexity of the study, the goals of the study, and the research questions that focus the study must all be taken into consideration. Maintaining methodological congruence, therefore, is an important aspect of employing multiple methods and ensuring study validity* (Thurston et al., 2008, p.2).

Bryman (2007, p.21) suggests that the 'metaphor of triangulation has sometimes hindered this process by concentrating on the degree to which findings are mutually reinforcing or irreconcilable.' MMR is not just comparing and contrasting findings against each other. Instead, it is about the overall or negotiated account of the findings that brings together both components to explain the issue.

3.11 Locating the researcher within the thesis

> *More explicitly, the transformative epistemological assumption raises questions such as, "What should my relationship as a researcher be with the people in the study?" "How should I interact with the people in the study?" "Should I be distant and removed so as to prevent bias or should I be close and involved so as to prevent bias?" "What makes it better so I can determine what is real in this context?" "If I am to genuinely know the reality of something, how do I need to relate to the people from whom I am collecting data?" These questions raise the issue of cultural competency in the community in which I conduct my research* (Mertens, 2010, p.471).

These questions as noted by Mertens (2010) pose epistemological, ethical, moral and practical issues for all researchers. This researcher (author) chose to consider these influences very early in the research process understanding that her values and worldview impacted this research from its conception and would continue to influence it until the final word is written. A reflective approach was undertaken with the researcher maintaining a journal throughout the research and reflecting on the bias that she brought to the research continuously.

Researcher bias was minimised through ongoing discussions with the supervisory team, ensuring that participants had the opportunity to review transcripts and research findings and to comment on publications throughout the research process. Remote health professionals, (former colleagues) provided advice and guidance around areas of potential bias; for example, trialling the online questionnaire and commenting on research papers. In addition, the presentation of papers at conferences and forums, both academic and health practitioner, provided opportunities to ensure the research remained relevant and that researcher bias did not influence its theoretical and practical currency.

Most importantly for this thesis, the researcher needs to be placed in the context of the research issue identifying the experience and knowledge that she brings to the research agenda. The blend of experience in HRM, management support and health sector research; shaped the perspective that inspired the proposal that management research could complement the health sector research in this area and thus provide a deeper understanding of the issue. Furthermore, the complementary approach that reviewed the literature from both the management and health domains, together with the MMR design, using both qualitative and quantitative research methods, are closely aligned to the values and beliefs of the researcher in considering alternative paths and bring to mind the words of Robert Frost (1920),

Two roads diverged in a wood, and I —
I took the one less traveled by
And that has made all the difference

It is well established that the challenges, including high turnover, for remote health professionals working in remote regions are well known, in fact, some health professionals suggested that they have not changed in 20 years. This does not make them any less important, for this researcher it implied that there may be advantages in an alternative approach. This thesis preserves the integrity of the researcher's values, epistemology and ontology exploring an identified issue pragmatically, that is, using available resources, experience and knowledge; which resulted in this complementary approach. Pragmatism, the paradigm in which this thesis sits, further supports the researcher's philosophy, that the road less travelled may provide previously unconsidered evidence to answer the research questions.

3.12 Conclusion

This chapter presented the philosophical and methodological approach used for this thesis. The research paradigm provided the foundation, the researcher's epistemology, axiology and ontology shaped the research approach but it is the research method that established the manner in which the data was collected and analysed to answer the research questions. A review of the literature and research questions suggested that MMR was the best choice for this thesis. Within the pragmatism paradigm, the MMR approach, offered a suitable framework to integrate the qualitative and quantitative data in a manner that was congruent with the author's worldview, minimised researcher bias, established validity and reliability, and above all, provided an alternative that better answered the research questions, than either method alone.

3.13 Chapter summary

- Mixed methods research is described as being the third major research approach together with qualitative and quantitative research.

- The mixing of methods offers more meaningful findings through the integration of methodologies, data analysis and interpretation.

- Mixed methods researchers argue that pragmatism is the most useful philosophy to support Mixed Methods Research.

- This thesis is set within the pragmatism paradigm.

- The quantitative data was collected from two data sources: an online questionnaire; and the review of the recruitment advertisements (vacancy data).

- The qualitative data was collected from three data sources: semi-formal interviews; an online questionnaire; and recruitment advertisements (vacancy data).

- This thesis benefits from the mixed methods research approach which answers the research questions in a manner that is better than either method alone.

- This thesis integrates the data at several levels and therefore is described as a fully mixed concurrent equal status research design.

- The research design for this thesis is described using the MMR notation system as QUAN + QUAL, signifying that the methods are afforded equal weighting and that the data is collected concurrently.

- Each research method was analysed separately with data collection and analysis techniques meeting the validity and reliability requirement of their respective research methods.

- The mixed methods research design minimised bias and reduced limitations thus reinforcing it as an ideal pragmatic research design for this thesis.

Chapter Four: Espoused HRM policies and how they influence health workforce sustainability in remote northern Australia.

4.0 Chapter overview

4.1 Declaration: Previously published material

4.2 Introduction

4.3 Methods

4.4 Rhetoric and Realities: Examining the espoused HRM policies

4.4.1 Results: Recruitment Advertisements
4.4.2 Results: Espoused HRM policies
4.4.3 Summary: Espoused HRM policies

4.5 Espoused HRM policies and health workforce sustainability in remote northern Australia

4.5.1 Background
4.5.2 Results: Factors that attract health professionals to work in remote areas
4.5.3 Results: Examining whether the remote experience fulfils expectations
4.5.4 Examining the influence that espoused HRM policies have on remote workforce attraction and expectations
4.5.5 Summary: Espoused HRM Policies and remote health workforce sustainability

4.6 Conclusion

4.7 Chapter summary

4.0 Chapter Overview

This chapter is divided into two sections - *Rhetoric and Realities: Examining the espoused HRM policies*; and *Espoused HRM policies and health workforce sustainability in remote northern Australia.* The first section of the chapter examines recruitment advertisements and identifies espoused HRM policies. The second section considers the influence of the espoused HRM policies on the sustainability of remote health workforces. Together, they seek to address the research question (RQ1): *What are the espoused HRM policies and how do they influence remote health workforce sustainability?*

4.1 Declaration: Previously published material

Portions of this chapter are from the paper entitled, '*Attraction and Retention of Health Professionals in Remote Northern Australia: HRM practices in a geographically challenging context'* which was published in the Conference Proceedings of the Academy of Management, HR Division International Conference (HRIC). In addition, a revised version of the aforementioned paper entitled, '*Recruiting remote health professionals: Human Resource Management in a geographically challenging context*' is currently under review for a special conference themed edition of the *Asia Pacific Journal of Human Resources*.

4.2 Introduction

Why examine the espoused HRM policies?

HRM policies are social constructions where people make sense of the context and translate organisational objectives into practices (van Gestel & Nyberg, 2009). Traditionally, HRM literature recognised the regulatory and limiting effect employment laws and labour markets have on HRM policies and practices which institutional theorists argue are constrained by external factors, organisational culture and current legislation (van Gestel & Nyberg, 2009). The connection between HRM policies and the organisational context only becomes locally appropriate if the policy becomes enacted in local practices. Therefore, to truly understand the influence of translating policies into practices, the specific local conditions must be considered (van Gestel & Nyberg, 2009).

HRM can be differentiated depending on whether the emphasis is on 'humans' or 'resources' (Townsend et al., 2012b*;* Truss et al., 1997) often referred to as 'hard' or 'soft' HRM (Guest, 1987; Truss et al., 1997). The concept of hard HRM considers employees to be costs associated with doing business whereas 'soft' HRM considers employees as resources that provide the organisation with a competitive advantage (Gill & Meyer, 2011). The differentiation between 'soft' and 'hard' HRM becomes apparent in the implementation of HRM policies and management practices. The inconsistent interpretation of HRM policies may lead to

management practices that not only confuse the HRM policy message but result in miscommunication that has detrimental effects for organisational performance, such as voluntary turnover and low job satisfaction (Gill & Myer, 2011; Townsend et al., 2012a; 2012b).

Gill and Myer (2011) report that organisations often adopt the rhetoric of the soft commitment model, while in reality employees experienced control similar to the hard model. They suggest that even when soft HRM policies are espoused and embraced, the emphasis on improving the organisation's financial performance took priority over the individual employee (Gill & Myer, 2011; Truss et al., 1997). Similarly, Hope-Hailey et al. (2005) report tensions between the rhetoric of HRM policies and the reality of employee experiences.

Townsend et al. (2012a) reconceptualises HRM practices as 'signals' that management send to employees. Therefore, to improve HRM policy outcomes it 'is important to recognise that HR policies and practices are only one set of signals among the many signals that are sent by the upper management' to managers (Townsend et al., 2012a, p.267). Effective communication is vital as HRM policies are not the only policies that line managers interpret and often, in the health sector, policies for patient care and budgetary issues are given higher priorities by managers. As employee perceptions of HR practices are usually the practices applied by managers it is apparent that managers play a central role in communicating policies and may be selective in determining which policies are communicated using their discretionary power to determine which information is important and how it will be disseminated (Townsend et al., 2012a, 2012b).

Localisation may legitimise unwanted HRM practices, as indicated by van Gestel and Nyberg's (2009) finding that the translation of a national policy by managers at a local level had unintended consequences creating workforce divisions. These findings are consistent with other research that suggests the gap between HRM policy intentions and practice can create unwanted outcomes. For example, Gill and Meyer (2011) found that where there was a soft HRM policy rhetoric and hard HRM practices there were negative outcomes in terms of employee commitment, productivity, satisfaction, and the employee-manager relationship. Hence, more positive outcomes are achieved when employees are exposed to the intended message (Townsend et al., 2012a).

HRM policies reveal how organisations are meeting their requirements for compliance and corporate governance. For example, recruitment is undertaken in accordance with employment legislation, and employees receive access to the training that ensures their competence with

specific equipment. HRM Policies outline obligations, standards of behaviour and are supported by procedures that prescribe how managers and employees should act to achieve these obligations and standards of conduct.

HRM policies support organisational effectiveness and provide a foundation for building the desired organisational culture. For example, recruitment policies outline the way that the organisation values its employees in the range of benefits (e.g. flexibility, professional development) and compensation (e.g. performance-based rewards, allowances, leave credits) that it offers employees. This thesis used the HRM policy choices from the Harvard Analytical Framework for HRM to guide data collection and analysis. These HRM policy choices are: HR flow, employee influence, reward systems and work systems (Beer et al., 1984).

Theoretical Foundation

Psychological contract theory (PCT) describes an individual employee's beliefs about 'what they think they are entitled to receive because of real or perceived promises' from their employer (Bartlett, 2001, p.337). Rousseau (1989) highlighted that it is the employee's beliefs about the reciprocal exchange agreement that forms the employment relationship. However, this reciprocity is unspecified and implicit, and thus difficult to quantify (Bal et al., 2008; Cullinane & Dundon, 2006). Psychological contract formation commences during the recruitment process and it is during these early experiences that employees form expectations and perceived obligations of their employer (Cullinane & Dundon, 2006; Knights & Kennedy, 2005; Zhao et al., 2007). Therefore, it is worthwhile to consider the espoused HRM policies and their potential influence on psychological contract formation for health professionals working in remote tropical northern Australia.

4.3 Methods

Two datasets were used to identify the espoused HRM policies and to examine the influence of espoused HRM policies on health workforce sustainability. This section describes the data collection and analysis methods for each dataset: recruitment advertisements and questionnaires. The recruitment advertisements contained data about the espoused HRM policies and the questionnaires contained data from the remote health professional's perspective about attraction to remote work and employment expectations.

Recruitment Advertisements

The methods for data collection were discussed in detail in chapter three. In addition to the recruitment advertisements collected from the five recruitment websites; twelve websites were

reviewed for organisations in tropical northern Australia who advertised regularly during the study period. The twelve websites included three state government departments; three Aboriginal Controlled Health Organisations; three Non-Government Organisations; and three recruitment agencies (one for each category was from WA, QLD and NT). The section on each website that described employment conditions, recruitment booklets and the links that described working in remote areas were reviewed (Appendix H). Analysis of these websites led to the creation of a checklist for identifying the espoused HRM policy in the advertisements and position descriptions (Appendix I). While the recruitment booklets may not be regarded technically as 'HRM policies' by some organisations; they are available to potential employees as part of a 'recruitment kit' and as such may influence the potential employee's decision, especially as they describe working in rural and remote regions, thus contributing to their expectations about the job, including the employment conditions.

Content analysis provided a methodological approach to the analysis that systematically analysed the text, thus 'codifying the text of writing into various groups or categories based on selected criteria' (Sisodia & Chowdhary, 2012, p.89). A random sample of recruitment advertisements were analysed using the checklist by the author of this thesis and two experienced researchers. Once the criteria for the checklist were established, *a priori* coding was used for analysis of the recruitment advertisements using the checklist. This content analysis method enables the systematic reduction of large volumes of data, which allows inferences to be made which, congruent with this thesis, can later be corroborated with the findings that emerged from other of data collection methods (Stemler, 2001). Content analysis enabled the written data to be coded and then counted and analysed using descriptive quantitative data analysis techniques. While content analysis allows for analysis across a variety of levels, for this thesis the variables examined were at the 'theme-level'. That is, the emergent themes from the website review formed the checklist criteria (e.g. incentives, leave entitlements and professional development) for the *a priori* data coding. Once coded the qualitative data could be analysed using quantitative data analysis techniques, 'to make numerical inferences and interpretations' (Sisodia & Chowdhary, 2012, p.90). The data were analysed using the statistical software package SPSS22. Descriptive data analyses including frequencies and cross-tabulations were conducted. This provided evidence of the espoused HRM policies contained in the recruitment advertising providing evidence for further examination of espoused HRM policies and practices.

Questionnaire

Chapter Three provides a description of the methods for the questionnaire. Since the literature revealed various factors that attracted health professionals to remote regions, the second section

of this chapter sought empirical evidence through two questions which were included in the questionnaire about the factors that attracted those currently working in remote regions. These questions were added to the questionnaire to elicit a written response from participants about what attracted them personally and/or professionally and how this had met their expectations.

1. Why did you choose to work in a remote region?
2. Now that you work in a remote region, is the work as you expected?

More specifically, for this chapter, data analysis was conducted using NVIVO10 to identify the themes for the first question. This thematic analysis identified fifteen themes. Content analysis was then used to analyse the responses to the second question and the recruitment advertising data. SPSS22 was used to conduct descriptive and statistical data analysis for the two datasets. The literature review discussed in chapter two identified four overarching themes that categorised the way health professionals described the challenges and rewards of working in remote regions: contextual; professional; organisational; and personal (Onnis & Pryce, 2016). These overarching themes provided the framework that guided data analysis for the second section of this chapter.

4.4 Rhetoric and Realities: Examining the espoused HRM policies

> *[A] critical component of the implementation of successful HR policies and practices is the person who is most responsible for the delivery of these policies and practices* (Taylor et al., 2012, p.205).

The disparity between the espoused and enacted policies creates a reality that is often different than the one espoused by management (Gill & Myer, 2011). Researchers propose that this disparity or 'gap' between rhetoric and reality is caused by the inability to deliver practices consistent with policies (Becker & Gerhart, 1996; Gill & Myer, 2011). Townsend et al. (2012a) suggest that this may arise from an ill-informed assumption that line managers will implement policies in the manner intended by HR professionals. As such, the role of HR as the architect and the role of managers in implementing HRM policies should be considered shared responsibilities (Townsend et al., 2012a, 2012b).

Gill and Meyer (2011), using the contingency perspective, proposed that the external and internal fit between the business strategy and HRM, as well as the congruence between HRM and line management is necessary to reduce the difference between the HRM policy rhetoric and the reality. Furthermore, the devolved, fragmented and often outsourced HRM function complicates the ideation and implementation of HRM policies (Caldwell, 2003; Hope-Hailey et

al., 2005). The nature of contemporary employment relationships, which have moved towards contractual arrangements that focus on mutual self-interest, increasingly add to the complexity of HRM policies and practices. Townsend et al. (2012b) suggested that the gap between the espoused and the enacted HR practices is explained by a lack of motivation, training and development for managers, together with conflicting priorities, large workloads and self-serving behaviours. A further explanation can be drawn from PCT. In seeking to examine the espoused HRM policies the next section reports on the analysis of the recruitment advertisements.

4.4.1 Results: Recruitment Advertisements

There were 3311 advertisements (and 1073 role descriptions) for health professionals to work in remote regions of northern Australia from August 2013 – July 2015. Approximately, half of the advertisements were for positions in Queensland (49.3%) and approximately one quarter were in the Northern Territory (26%) and Western Australia (22.2%). Most of the vacancies advertised were nursing (62%), followed by allied health (18.1%), medicine (11.1%), and Indigenous Health Workers (3.5%). There were advertisements for temporary positions (34.6%); permanent positions (27.1%); full-time (56.1%); part-time (4.2%) and casual (0.1%). The remainder of the advertisements, approximately one third, did not include details of the type or status of employment. The majority of the advertisements were sourced from seek.com (62%) and government recruitment websites (31.5%) with the remainder sourced from www.careerone.com.

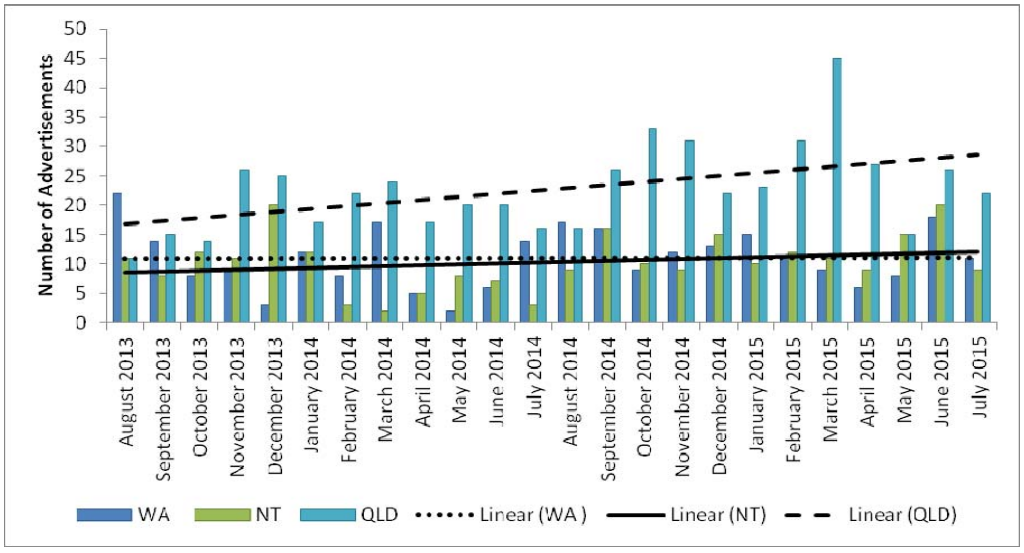


Figure 4.1: Government recruitment advertisements for health professionals in remote northern Australia (n=1038).

The government recruitment advertisements showed that NT and WA advertised fairly consistently although there was a slight increase for NT over the two year period (Figure 4.1). In contrast, Queensland (QLD) had a considerable increase in advertisements during the study period. It is possible that the increases can be explained by seasonal fluctuations, for example, health professionals not returning to remote regions after taking annual leave during the Christmas holiday period or for the wet season, an increase in short-term contracts to cover the leave towards the end of the year, seasonal changes in climate or the implemtation of short-term programs. However, a similar pattern is not apparent in the seek.com advertisements where QLD is more consistent across the entire period with an increase noted in both March 2014 and March 2015 (Figure 4.2). In contrast to Figure 4.1, Figure 4.2 shows an increase in the number of advertisements for WA, with NT and QLD remaining consistent during the study period. The increase in WA may be a result of a policy change or a change to recruitment practices as there were few advertisements on seek.com in 2013 so the increase in advertising is representative of few advertisements growing to consistent advertising on www.seek.com towards the end of the study period.

Overall, the WA government website advertised consistently across the period. In April 2014 the website announced 'an immediate freeze on all recruitment until 30 June 2014 (unless otherwise approved)' (posted 16/4/2014). The implementation of this policy reduced the number of advertisements during this three month period; however, did not appear to have a large effect in the long-term. In addition, the policy approach taken by WACHS to advertise many positions through a recruitment pool allowed for pool recruitment advertising to continute throughout this period. For example, there were pool advertisements for clinical nurses, registered nurses and enrolled nurses for most of the study period. It is beyond the scope of this study to ascertain why there was an increase on advertisments for WA positions in seek.com; however, it is possible that this may have arisen from external policies, such as changes to the delivery of primary healthcare services being undertaken by smaller non-government healthcare providers through a government tender process; decreased employment in the mining industry which forced many families to leave remote areas; and an increase in FIFO in mining (and in general) which also reduced the number of spouses available to work in remote regions. This increase may be due to an increase in the number or competitiveness of recruitment Agencies; a policy decision to advertise online rather than in print to reduce costs; a response to widespread restructuring and redundancies across the health sector with the implementation of the new Hospital and Health Services in 2012-2013; or, a reflection of increased turnover in the region.

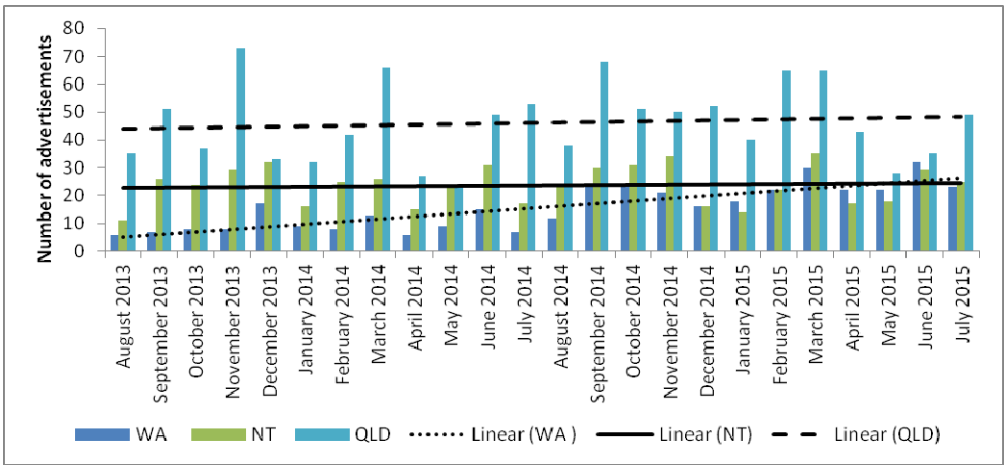


Figure 4.2: Recruitment advertisements for health professionals in remote northern Australia listed on seek.com (n=2053).

Management positions

There were 348 advertisements for management positions. Advertisements were considered a management positions if they had the word 'Manager', 'Director' or 'Team leader' in the title. Overall, 10.5% of the advertisements were for management positions. Few advertisements mentioned management qualifications and/or previous management experience. In fact, an analysis of this subset of advertisements, found that management qualifications were mandatory in 14 (4%) advertisements and desirable in 33 (9.5%) advertisements. Closer examination revealed that most (57%) of the advertisements with mandatory management qualification requirements were for a similar position at the same small ACCHO employer. If this position was excluded, there were only 6 (1.7%) advertisements for management positions that had a mandatory requirement for a management qualification. In addition, management experience was mandatory in 19 (5.5%) advertisements and desirable in 3 (0.8%) advertisements. Finally, experience working in remote regions was mandatory for 21 (6%) and desirable for 21 (6%) of management advertisements. Therefore, the majority of management advertisements did not have espoused HRM policies requiring management qualifications, previous management experience or experience working in a remote context.

Distribution of the positions

The geographical distribution of the advertisements for health professionals is illustrated in Figure 4.3. There were positions advertised across the entire region of northern Australian, including Indigenous communities, island communities, small towns, regional centres, Australian territories (e.g. Christmas Island), and offshore detention centres (e.g. FIFO to Manus Island). Overall, there were more in coastal areas where there are higher population clusters and in regional centres, such as Broome, Kununurra, Katherine and Mt Isa. The larger

cities of Darwin, Perth, Brisbane and Cairns were excluded from the study; however, FIFO positions based in any of these cities for work in a remote regions were included.

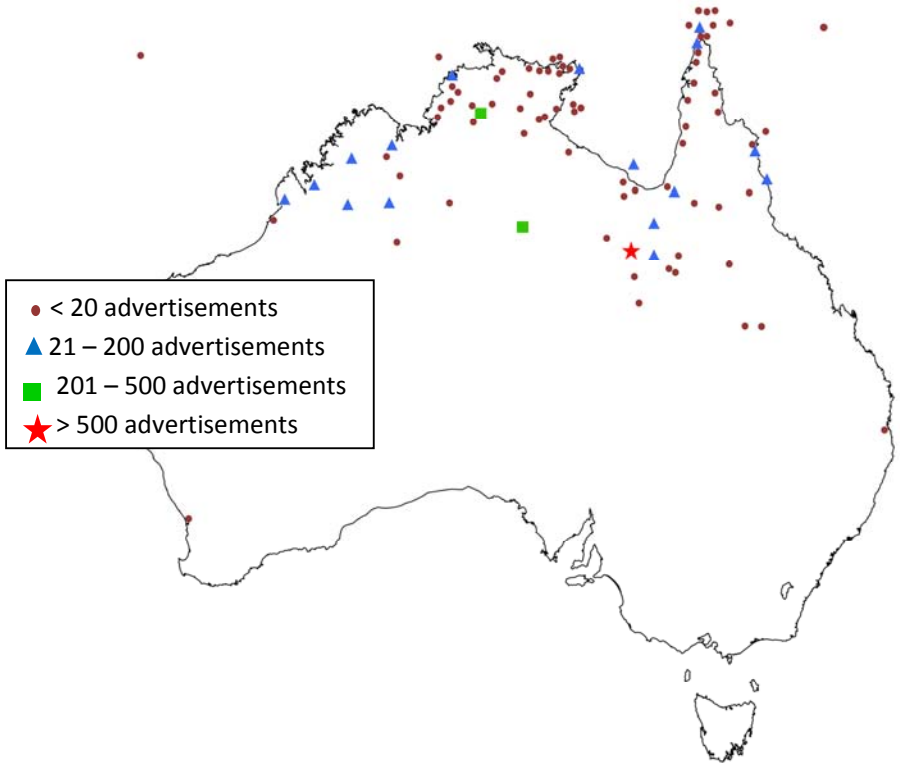


Figure 4.3: An overview of the geographical location for the health positions advertised (August 2013 – July 2015).

4.4.2 Results: Espoused HRM Policies

There were espoused HRM policies in 98.6% of the advertisements. The espoused HRM policies included information about HR flow, employee influence, work systems and reward systems (Table 4.1 and Table 4.2).

HR flow

The espoused policies for HR flow described recruitment and selection processes, career progression and job security (Table 4.1). There were differences between organisations, for example, NT Department of Health advertised mostly fixed term contracts, many of which were for three or five years whereas Queensland Health advertised more permanent positions with their temporary positions being more short-term (e.g. six months or relief positions). Recruitment agencies advertised many short-term contracts (minimum six weeks) and then suggested that there was a chance of ongoing employment. Also, most of the rewards and

incentives were aimed at increasing length of time in the remote region, thus influencing HR flow through reward system policies.

Table 4.1: Espoused HRM policies contained in recruitment advertisements for health professionals in remote northern Australia (n=3265)

HR Policy Choice	Espoused policies	Evidence in advertisements (%)
HR Flow	Australian citizens preferred/only	7.8%
	Career Advancement	14.7%
	Job security	11.1%
	Permanent/Temporary	63.8%
	Pre-employment Screening	22.8%
	Probation	16.3%
Employee Influence	Ability to work in remote region	0.6%
	Professional Development Allowance	6.9%
	Remote experience	12.1%
Work Conditions	Annual Leave provisions	15.1%
	Clinical Qualifications	73.2%
	Clinical Registration	69.9%
	Criminal History Check	58%
	Cultural Diversity	13.2%
	Described location of work	5.3%
	EEO Employer	9.1%
	Flexible work practices	8.5%
	FTE (Full-time/part-time/casual)	37.9%
	Mission Statement	13.9%
	Oncall paid	2.1%
	Oncall requirements	7.6%
	Professional Development	35.3%
	Relocation Assistance	9.5%
	Smoke-free workplace	15%
	Study Leave	26.8%
	Support	7.5%
	Values	24.5%
	Vision	18.1%
	Working With Children Check	43.5%
Reward Systems	Accommodation	44.1%
	Annual Airfare	21.4%
	Electricity/Air conditioning subsidy	9.2%
	Incentives	30.8%
	RANIP	2.2%
	Remote Allowance	30.7%
	Remuneration	55.75%
	Retention Incentive	0.9%
	Salary Sacrifice	36%

In January 2015, the NT government posted a change in their recruitment policies attaching a document entitled 'Special Measures Plan for Recruitment – Information Sheet' to most advertisements on their website. This policy change encompassed an approach to provide priority consideration for Aboriginal applicants stating that:

> *An Aboriginal applicant who is assessed by the relevant Selection Panel as meeting the essential selection criteria and as suitable to perform the duties at a level appropriate for the position, will be selected ... Other applicants will only be considered if the Aboriginal applicant(s) is assessed as not meeting the essential selection criteria or not being suitable to perform at a level appropriate for that position* (2262JAN15).

This information statement provides clear guidance about the HRM policy choices that the NT government have chosen for their Indigenous employment strategy, recruitment processes and workforce diversity.

Employee Influence

The espoused HRM policies for employee influence described characteristics or aspects of their previous experience that would enable them to thrive in a remote workplace, including areas where they have an influence on decision-making, including how they allocate their time and money. The espoused HRM policies for employee influence included: Ability to work in remote region (e.g. 'understand the restraints of working in a remote region'), professional development allowance (e.g. 'enjoy the training and development opportunities that allow you to fulfil [sic] your career goals'), and remote experience (e.g. 'experience working in Rural and Remote settings'). These espoused HRM policies contribute to the level of participation an employee has in decision-making. For example, a professional development allowance paid directly to employees each fortnight means that they can determine which aspects of their own professional development they pursue, rather than their manager or the organisation approving professional development activities based on organisational needs. Often, professional development funding is a budget item controlled by the manager and so the employee would need to gain approval from their manager for professional development activities. However, this policy provides for greater influence by the health professional in participating in decision making because they have greater influence over access to the funding. The employee's influence on decision-making, including the level of autonomy they enjoy in remote regions, is influenced by their previous experience and ability to work effectively in remote regions. With an increase in experience and understanding of the remote context health professionals have greater capacity and access to participatory decision-making in most organisations.

Work systems

The espoused HRM policies for work systems included: organisational policies (e.g. EEO Employer, cultural diversity); local policies (e.g. flexible work practices); and legislative policy requirements (e.g. clinical qualifications, working with children checks). There were also policies to promote workplace safety (e.g. clinical registration, criminal history checks); geographical logistics policies (e.g. relocation assistance; study leave); and policies to compensate for the inconveniences of remote practice (e.g. paid oncall, additional annual leave). In addition, espoused organisational values, vision and mission statements were available for all the government advertised positions, either in the advertising, the position description or on their respective websites. Many of the non-government organisations and ACCHOs also communicated their values, vision and mission in the advertisements.

There were opportunities for these proclaimed values and visions to cause confusion for potential applicants. For example, in October 2014, The North West Hospital and Health Service had a position description that contained a *vision for the public sector* including five value statements: Customers first; Ideas into action; Unleash potential; Be courageous; and Empower people. On the next page they list the North West Hospital and Health Service Vision and Values. These values differed from the previous ones and included the following: Our Patients; Our Communities; Our Staff; Our Ownership, Accountability and Transparency; and Our Health Service Delivery. Similarly, a role description from the Cape York and Torres Strait Hospital and Health Service contained the public service vision and one of their own. Approximately one page (20%) of each of these five page positions descriptions contained information about visions and values.

When considering work conditions the descriptions in the advertising about the physical working conditions contributes to determining person-fit and these advertisements may influence the attraction, psychological contract formation and ability for new employees to adjust to their remote workplace. For example, some advertisements described the geographical location in terms of natural features (e.g. stunning sunsets, isolated beaches), the climate or the road conditions. Other advertisements described aspects of community life, including working in Indigenous communities, small town community attributes (e.g. markets, races) and others also described lifestyle factors associated with the physical location (e.g. going fishing after work). Overall, only 5.3% of the advertisements contained information about the geographical work location, which is low considering that many health professionals who relocate to remote regions do so without a clear understanding of remoteness or the environment in which they are going to work.

Reward systems

The espoused HRM policies for reward systems included both policies for health professionals in general and those rewards more specifically for health professionals working in remote regions. More general espoused HRM policies included remuneration (salary and benefits); salary sacrificing; and other work-based incentives. Many rewards compensated for geographical remoteness and the associated hardships, including: remote allowances, access to return annual airfares to the nearest city or a commensurate airfare; electricity or air conditioning subsidies to offset the costs of additional air conditioning in the warmer months; and, accommodation where there is limited access to private accommodation. In addition, there were specific retention incentives based on profession or geographic location. For example, some advertisements provided incentives that were only available to health professionals who relocated to the remote region. In contrast, others stated that there was no accommodation or relocation assistance available saying that 'Local residents only need apply' (1279JUN14). These two vastly different approaches highlight the differences in reward systems between organisations, professions and geographic locations.

Many advertisements listed a range of incentives for health professionals to relocate to remote practice. Given that much of the focus in recent years has been on incentivising to boost the financial rewards, there was sufficient reason to investigate the types of incentives offered. Overall, there were 53 incentives mentioned in the advertising, all of which relate to reward systems policy choices (Appendix J). Analysis found that while there were a variety of incentives, there were only 11 that were included in more that 1% of the advertisements (Table 4.2). The isolation bonus, bonuses and financial incentives were mentioned in very few advertisements given the rhetoric on how they attract health professionals to remote regions and the associated high financial costs for organisations. Of note, the most frequently espoused financial incentive was an above Award or high salary, which is associated with the position. Incentives not associated with the candidate's skills or expertise included uniforms and indemnity insurance reimbursement. Furthermore, items such as the opportunity to travel and free uniforms were more frequently included in advertisements by Agencies. The high frequency of advertisements by Agencies for referral bonuses and free uniforms was intriguing. The former suggests a more marketing focused recruitment policy where the aim is to collect details for potential candidates but only pay on successful placements. This policy entails a low risk strategy for the Agency and a cost-effective way to source potential candidates. The latter, free uniforms, was more intriguing. Investigation, suggests that the uniforms usually displayed Agency logos thus, an effective advertising strategy for the Agency. For the employee the benefit is in the value of the free uniform and any associated intrinsic benefit of the association with the company (Participant IP9). While these are speculative suggestions about the benefits,

the frequency in which they were mentioned in the advertisements suggests underlying policies or strategies in play.

Retention incentives differed considerably. Many nurses working in Queensland were eligible for the Remote Area Nursing Incentive Package (RANIP) which is outlined in the 'Nurses and Midwives (Queensland Health) Certified Agreement (EB8) (2012). The RANIP includes annual isolation bonuses as follows: at the conclusion of one year of service ($3,500); at the conclusion of two years of service ($10,500); and at the conclusion of three of more years of service ($7,000). These espoused HR policies are designed to improve retention in areas where turnover is high, with the higher amount incentivising the completion of two years in a remote region. A similar scheme is available for medical professions with Medicare Local (19/5/2015) publishing information on the *General Practice Rural Incentives Program* where medical practitioners are offered retention bonuses for working in very remote areas as follows: 6 months ($8,000); 1 year ($13,000); 2 years ($18,000); 3-4 years ($27,000); and five years or more ($47,000). From a HRM perspective these policies are designed to encourage retention and are paid based on the length of time the health professional practices in the remote location. These rewards are not performance based and, in fact, very few advertisements espoused any performance-based rewards systems.

Table 4.2: Incentives advertised

Incentives	%
Annual Isolation Bonus	1.34
Bonus	2.02
Uniforms (Free/Allowance)	6.32
Referral Bonus	2.89
Professional Development	4.20
Financial Incentives	2.18
Vehicle Allowance	2.15
Travel (Opportunity/Experience)	1.68
Indemnity Insurance (reimbursement)	1.37
Incentive Package* (Doctors only)	1.12
High Salary/Above Award Pay	13.07

*private use of fully maintained vehicle, communications package (mobile phone, laptop, etc.), professional development allowance, professional development leave 3.6 weeks p.a., professional indemnity cover, private practice arrangements plus overtime and on-call allowance.

Geographical remoteness

Geographical remoteness necessitates the need for health professionals to have wide ranging and varied responsibilities. The advertisements gave a sense of the breadth of these roles. For

example an advertisement for a Remote Area Nurse (RAN) included direct supervision responsibilities for the cleaner and the gardener (015AUG2013). There was also an advertisement for an oncall registered nurse to work on a resort island that outlined the role and responsibilities as follows (613DEC13):

> *Working as the Resort Nurse, you will be responsible for providing prompt and efficient emergency and first aid service to resort guests and staff to ensure their safety and well being. Please note: Our clinic does not operate on a full-time basis; therefore as part of this role you will have the opportunity to be cross-trained to work within another department and must be prepared to carry out such duties. Departments may include front office, housekeeping or food and beverage.*

This advertisement provides an insight into the organisations approach to workforce flexibility. Applications were requested for qualified registered nurses, with current registration; however, it did not provide any suggestion of the salary. The HRM policy would need to compensate for nursing qualifications and skills, particularly the requirement for emergency care, as well as an applicable hourly rate for duties relating to housekeeping or food and beverage. This advertisement suggests the value that the organisation places on a RAN to work in isolation and that they must undertake additional task beyond the scope of nursing practice. In practice, this may be a difficult role to manage as it is most likely that they will report to someone who is not a nurse and may not understand what is required to maintain registration. In addition, there may be a professional and organisation clash where the organisation considers that any employee on the island should be fully employed to remain on the island and a professional who may display occupational commitment and may not consider that they are being respected by being asked to undertake non-professional tasks within the resort outside of clinic hours, especially when emergency care may necessitate unexpected absences from the alternative role.

If the employee's experience is congruent with the expectations they formed prior or during their appointment then it follows that they are more likely to have a positive employment experience which is likely to translate into improved retention. If there is a difference between the employee's expectations and their perceived reality, there is an opportunity for a psychological contract breach. For example, some of the advertisements stated that accommodation was negotiable, this may lead potential employees to think that there is an opportunity to negotiate free or subsidised accommodation, yet when they arrive in the remote region, if they are advised that there is no accommodation available or that they are not eligible in that particular region, they may feel that they were deceived. This is an example where organisational policies may contradict localised policies, that is, the employee may be eligible

under the organisational policy; however, inadequate resources mean that the local manager is unable to implement the policy in the manner in which it was intended.

The espoused policies that outline incentives and bonuses, particularly those that are prescribed in industrial agreements, such as enterprise agreements and Awards are transparent in structure. This means that all the employees are aware of the salaries and financial incentives that other employees are receiving. In small remote workplaces this can be difficult for managers who may have a small team who are receiving vastly different salaries and benefits (Hegney et al., 2002b; Santhanam et al., 2006). This is particularly difficult for multi-disciplinary teams where team members may be undertaking a similar role yet receiving different salaries, a different number of annual leave days and often different incentive payments. This is exemplified where there were advertisements for a position that could be filled by either a nurse or an allied health professional (339OCT13). The successful candidate needed to be degree qualified and registered with a professional body, so the level of qualification and competence was similar; however, the role description showed that the starting salary for a nurse was $21,677 more than for an allied health professional. For this position, the nursing Award had four increment levels and the allied health Award had nine increments. If the successful applicant was an allied health professional they would not only begin on a lower pay rate, incrementally the Award pay increases never closed the gap, so that even after four years in the position there is still a difference in salary of $11,030 per year. It took seven years for the allied health position to be remunerated at a comparable rate (the fourth increment) for the nursing position: $83,760 (allied health) and $84,268 (nursing). However, an allied health professional must also have a post-graduate qualification to reach the highest increment further emphasising differences between professions. In addition, there were different annual leave entitlements, different professional development provisions and nurses may be eligible for RANIP which included an isolation bonus, remote allowance, additional study leave and subsidised accommodation. All these anomalies were for the same position with the same tasks and the level of responsibility. The differences were associated with the successful candidate's profession, not the role.

There were also differences in terms of the type of accommodation described in the advertisement. Accommodation is a common factor in voluntary turnover, with several studies citing accommodation as being one of the reasons why health professionals leave remote regions (Hegney et al., 2002b). The advertisements did not always describe the accommodation; however, some did mention that it was shared accommodation or located near the clinic. Several studies have highlighted the challenges of living and working together in isolated regions, emphasising the importance of appropriate accommodation, access to vehicles and opportunities to leave the remote region as important for retention (Hegney, 2002b; Onnis

& Pryce, 2016). The advertisements contain espoused HRM policies that enabled employees to access vehicles (usually if they were medical professionals) and several policies that promoted additional leave so that they are relieved from their isolated post frequently (e.g. Fare Out Isolation Leave (FOIL), free annual airfares and additional annual leave days).

4.4.3 Summary: Espoused HRM Policies

In summary, the espoused HRM policies included in the recruitment advertisements described entitlements, rewards, work conditions, safety practices, employment conditions, legislative requirements, competency and registration requirements and retention bonuses. Analysis of the advertisements provided an overview of the espoused HRM policies currently used by organisations to attract and recruit health professionals to work in remote northern Australia. The espoused HRM policies described in the advertisements were consistent with the espoused policies from the twelve sample websites. Furthermore, they were consistent with those discussed by health service providers and health professionals working in remote regions (Onnis & Pryce, 2016).

The advertisements included many HRM policies developed at an organisational level that would be implemented by managers at a local level, for example, eligibility for free or subsidised accommodation. As indicated above, deferment to the managers in the remote region can present many challenges. In addition, the range of financial incentives and bonuses may also create challenges for managers at the local level where health professionals working in small teams in geographically isolated regions have a range of entitlements and benefits based on their profession, whether they have permanent or temporary appointments, and where they lived at the time of their appointment.

The HRM policy choices described in the advertisements show that many HRM policies are communicated to potential applicants, therefore, new employees will have a reasonable awareness of certain aspects of the organisation's HRM policies prior to commencement. The difference between the espoused HRM policies in recruitment advertising and the conditions experienced by the health professional in remote regions contributes to the formation and perceived breaches of their psychological contracts. Hence, espoused HRM policies influence the sustainability of remote health workforces. The next section examines the influence of the espoused HRM policies on the sustainability of remote health workforces in remote northern Australia considering the findings from the questionnaire.

4.5 Espoused HRM policies and health workforce sustainability in remote tropical northern Australia

4.5.1 Background

> *Many businesses and public sector organisations throughout Australia find it difficult to attract, let alone retain, staff. This 'problem' is exacerbated in remote and desert Australia, which is far removed from the attractions of the cities as well as the comprehensive infrastructure and services that are available in high population centres* (McKenzie, 2011, p. 354).

The World Health Organisation (WHO) predicts a global shortage of health workers by 2035 with many countries already experiencing shortages of nurses and midwives (Campbell et al., 2013). In addition, the distribution of health workers typically sees a higher density in urban areas and a scarcity in many geographically unattractive regions including the remote regions of Australia (Campbell et al., 2013; WHO, 2010). In geographically unattractive areas, the war for talent is increased as organisations compete to attract and retain experienced, competent health professionals who also find the work and context both personally and professionally rewarding. A review of the literature found that recruiting health professionals with rural backgrounds or pre-registration work experience in rural and remote areas improved retention (Hegney et al., 2002b; Kent-Wilkinson et al., 2010). In contrast, others found that generous remuneration, employment conditions and financial incentives are the key to attracting and retaining health professionals in remote regions (Battye & McTaggart, 2003; O'Toole & Schoo, 2010). To some extent all of these proposals may improve attraction and retention in the short-term; however, long-term reductions to turnover have not been widely reported in the literature. In fact, McKenzie (2011, p.361) suggests that in remote regions 'there is the continual problem of attraction and retention, which is costing government and businesses time, money and lost opportunity'. According to Hemphill and Kulik (2011, p.117) despite government strategies and incentives, declining GP to patient ratios in rural and remote Australia 'suggest new recruitment strategies are needed'. Further emphasising that research providing evidence about the implementation of HRM strategies improving attraction and retention, including long-term impacts and sustainability of these strategies on remote workforces is needed (Lehmann et al., 2008). To improve retention, organisations need to better manage their recruitment and one way to do this is to design recruitment advertisements that 'provide insights into the job advertised and consequently generate a pool of qualified suitable applicants' (Sisodia & Chowdhary, 2012, p.81).

Recruitment strategies providing more realistic job previews are encouraged, particularly where applicants may be unfamiliar with the context. Richardson, McBey and McKenna (2008)

reported that in addition to realistic job previews, professionals valued realistic non-work information (e.g. local community and living conditions) and appreciated more realistic information, both negative and positive. Realistic recruitment advertisements attracting health professionals to remote regions benefits organisations experiencing high turnover in two ways. Firstly, they increase the quantity and quality of potential applicants and secondly, the employee commences the employment relationship with information about the organisation, the role and the remote context contributing to more realistic psychological contract formation.

Recruitment advertising is the avenue through which organisations communicate with potential employees; therefore, it is through recruitment advertising that the needs of the employer and the potential employee connect. Lee, Hwang, Wang and Chen (2011, p.2736) state quite simply that 'the primary objective of effective recruiting advertising is to attract potential applicants' attention and then persuade them to apply'. Rai and Kothari (2008, p.52) reported that while well-designed recruitment advertisements attract more candidates, there is little research seeking to understand the impact of actual content used in recruitment advertising (Rai & Kothari, 2008).

Two literature reviews provide evidence of the most commonly used predictors of applicant attraction. Uggerslev, Fassina and Kraichy (2012) conducted a meta-analysis using Barber's (1998) seven categories of applicant attraction predictors reported in the literature. Whereas, Chapman et al. (2005) conducted a meta-analysis of the literature on attraction to organisations and job choice. Their findings were similar with Chapman et al. (2005) reporting six factors usually examined as predictors of applicant attraction: job and organisational characteristics; recruiter characteristics; perceptions of the recruitment process; perceived fit; perceived alternatives; and hiring expectancies. Uggerslev et al. (2012) described job characteristics and organizational characteristics as two separate factors; hence, they had an additional factor, otherwise the predictors were similar.

An examination of the attraction predictors provides insights relevant to this study. *Job and organizational characteristics* suggests that applicants make choices based on job attributes and characteristics (Chapman et al., 2005). Sisodia and Chowdhary (2012, p.81) suggest that to improve retention organisations need to better manage their recruitment and one way to do this is to design recruitment advertisements that 'provide insights into the job advertised and consequently generate a pool of qualified suitable applicants'. *Recruiter characteristics* describes the influence of recruiters on the attractiveness of vacancies; and *perceptions of the recruitment process* focuses more specifically on the process, such as procedural fairness (Chapman et al., 2005). During workforce shortages, recruitment processes could be viewed

from a marketing perspective (Baum & Kabst, 2014; Collins & Stevens, 2002;) as organisations use marketing techniques to inform potential employees about career opportunities and company characteristics (Perkins, Thomas & Taylor, 2000).

Of particular relevance to this study is *perceived fit* which Chapman et al. (2005) describe as the subjective factors about the organisation or role that applicants seek. Lee et al. (2011, p.2736) found that when considering the message contained in recruitment advertising, it is the 'person-organization fit that mediates the relationship between message specificity and pursuit intention.' Thus, emphasising the influence of the messages communicated through the recruitment advertisement and an applicant's perception of person-fit (Lee et al., 2011). Green and Dalton (2007) suggest that people join and remain with organisations when they perceive an alignment between the organisation's values and culture and their own values and aspirations. With this in mind, it is often the recruitment advertisement that provides the first impressions of the organisation and forms a basis on which the potential employee imagines the employment experience with the organisation. Hence, the recruitment advertisement conveys the message which determines whether a potential employee decides to apply for a position with that particular organisation (Lee et al., 2011).

Finally, in geographically remote regions, the last two attraction predictors are also very relevant. *Perceived alternatives* include the extent to which potential applicants perceive that prefered employment alternatives are available (Chapman et al., 2005). The continued narrative about geographically remote regions experiencing high turnover may make it more difficult to recruit as potiential applicants may percieve that there are many alternative job opportunities. In addition, *hiring expectancies* descibes the applicants evaluation of how likely it is that they may be offered the role (Chapman et al., 2005). Once again, applicants seeking positions in geographically remote regions where high turnover is common may be quite confident in the likelihood that they will be able to obtain work.

In a region that experiences high turnover, in a sector facing global workforce shortages, workforce sustainability in a geographically unattractive environment is challenging without doubt; however, some health services within these regions experience reasonable levels of workforce stability. The literature suggests that the attraction and retention factors are individualised (Onnis, 2015; Onnis & Pryce, 2016). As such, recruitment advertisements are vital in attracting a pool of applicants with personal characteristics, experience, skills and qualifications congruent with those required for health professionals to thrive in remote northern Australia, thus supporting workforce sustainability.

The aim of the second section of this chapter was to examine the influence of espoused HRM policies on health workforce sustainability. This was achieved through: 1) the identification of the factors that attract health professionals to work in remote areas of tropical northern Australia; 2) examining whether the remote experience fulfils the health professional's expectations; and 3) identifying the influence that espoused HRM policies have on remote workforce attraction and the employment experiences which ultimately influence remote health workforce sustainability.

4.5.2 Results: Factors that attract health professionals to work in remote areas

This section identifies the factors that attracted health professionals to work in remote regions, and examines whether the expectations of health professionals matches their experiences. The research methods were described in chapter three and in the 'Methods' section earlier in this chapter. In summary, it reports on findings from examining the recruitment advertisements and analysis of qualitative data from the questionnaire. A description of the advertising data was provided in 4.3.1. The questionnaire participants (n=213) were currently working in remote northern Queensland and the Kimberley (WA). Most participants were female (79%), approximately half were nurses (51%) and two thirds (65%) said that prior to their current role they had worked in a remote region.

Attraction

> *I have always worked remotely all my working life because I choose to. It is more difficult with less support so things like orientation & helping people start-up are all the more important. I don't think employers get this right too often. They do not spend enough time initially on getting someone comfortable with their new role* (Participant Q73).

Participants were asked 'Why did you choose to work in a remote area?' A variety of reasons were offered including three that suggested that they had not specifically chosen to work in a remote region it was a consequence of circumstance or other choices. That is, for some people the remote region is where they live (home) so they did not choose to move there specifically for work. In addition, some participants moved to the remote area with a partner and others because they needed a job irrespective of location. The reasons offered were more frequently personal or professional (Table 4.3).

Table 4.3: Reasons given by current remote health professionals for choosing to work in remote areas (n=213)

Theme	Reason	%
Contextual	Home	6
	Geography	1
Professional	Scope of Practice	17
	Indigenous Health	11
	Opportunity for work not location	4
	Different Work	2
	Previous Experience	1
Organisational	Remuneration/Incentives	4
Personal	Lifestyle	18
	Adventure/Travel	8
	Raised in Rural/Remote Area	7
	Partner's Work	8
	Make a Difference	6
	Autonomy	4
	Desire	3

The reasons reported by health professionals currently working in remote regions suggest that decisions are based on personal factors such as lifestyle and intrinsic motivations (e.g. adventure, desire fulfilment); or professional factors such as clinical practice (e.g. scope of practice), working in Indigenous health and generous remuneration. For some health professionals, the choice was about returning to an area where they were comfortable because they were raised in a rural/remote area or had previous experience in a remote area. There were no specific references to the organisation as being a specific attraction factor. That is, no-one said that they were attracted to the position in a remote region because they wanted to work for that particular employer.

The 15 reasons reported by health professions (Table 4.3) included eight reasons that could be described as factors that could be used to attract other health professionals to remote regions. These factors were: 'Autonomy', 'Adventure/Travel', 'Lifestyle', 'Making a Difference', 'Scope of Practice', working in 'Indigenous Health', 'Remuneration (including incentives)' and the 'Geographical location'. The other factors were excluded from the next step of analysis because they described characteristics other than factors that may attract health professionals to remote regions (e.g. already living in remote areas, raised in a rural area, previous experience). Similarly, the health professionals who were there due to circumstances other than a choice to work in a remote area were removed (e.g. accompanied partners).

The findings from the analysis of the questionnaire data were used to conduct a content analysis on the advertisements to determine whether the factors were used to attract applicants. An analysis of the recruitment advertisement data identified messages comparable with the reasons reported by the questionnaire participants (Table 4.4).

Table 4.4: Frequency of attraction factors described in recruitment advertising (n=3308)

Theme	Attraction Factors	%
Contextual	Geographical location	14.06
Professional	Scope of Practice	2.12
	Indigenous Health	5.80
Organisational	Remuneration (including incentives)	56.38
Personal	Lifestyle	7.95
	Adventure/Travel	8.10
	Making a Difference	5.50
	Autonomy	1.60

4.5.3 Results: Examining whether the remote experience fulfils expectations

> *Some of the work has exceeded my expectations! Highlights have been the diversity of skilled staff I associate with every day. The first six months was exciting and I was happy & bursting with energy and plans every day! Unfortunately just a few little things repeated enough can tip the scales, having colleagues that I trust & sharing similar professional values & expectations is a key factor in job sustainability & satisfaction. Some of my clients feedback has exceeded my expectations and that makes it worthwhile getting out of bed in the mornings!* (Participant Q69).

The questionnaires participants were asked the question 'Now that you work in a remote region, is the work as you expected? This study found that half (53%) reported that the work experience was as they expected, and further 5% were non-committal reporting that some aspects were as expected and others were not as expected. However, many participants (42%) reported that the work experience was not as expected, for example one participant said 'Intellectually I knew what to expect but as always the actual exposure is challenging initially' (Participant Q60). The following results (Table 4.5) are presented with an emphasis on the fact that participants were identifying whether or not their expectations were met, and not that the experience was better or worse than expected, just that it did not meet their preconceived expectations.

While not statistically significant, it is interesting to observe that of those health professionals who said that they had undertaken a placement in a rural or remote area prior to commencing paid employment, almost half (45%) reported that the remote area work did not meet their expectations. For those that did not undertake a placement, more than a third (37%) reported that it did not meet their expectations. This is inconsistent with the literature as rural and remote placements are viewed as avenues to expose and prepare health professionals for remote opportunities (Hegney et al., 2002b; Kent-Wilkinson et al., 2010).

For those who had received a remote area incentive benefit, there was a slight difference in the proportion who reported that the work met their expectations (48%) and those who reported that it did not meet their expectations (37%). However, for those who had not received a remote incentive benefit the proportion of those who reported that the work either met their expectations or did not meet their expectations was the same (44%). This suggests that for these remote health professionals the incentive benefit did not influence the realisation of their expectations about working in a remote area.

Table 4.5: Aspects of the remote employment experience that did not meet their expectations.

Contextual	Professional	Organisational	Personal
Geographical	Backward practices (outdated)	Management support	Making a difference
Distance	Clinical competence	Bureaucracy	Lifestyle
Cultural challenges	Scope of practice	Inefficiencies	Travel
Social Disadvantage	Workforce	Waste	Autonomy
Community engagement	Working with Aboriginal people	Remuneration and incentives	Culture Shock
	Clinical demands	Bullying culture	Unique experience
	Different to private practice	Employment Conditions	Work was harder
	Exceeded job description	Inadequate resources	Adaptable
		Workloads	Stressful
		Logistics	Feeling valued
			Isolating
			Violence

These findings provided further explanation about how the actual work experience can differ from their expectations. For example, many participants reported that the lifestyle did not meet their expectations, saying that ‘it can sometimes be difficult to achieve work/life balance due to

the amount of travel and the level of exhaustion after a trip' (QP142), and 'it can get a little isolated sometimes' (QP85). Another said that it did meet their expectations, saying 'I anticipated it being hard, challenging and frustrating with long hours' (QP155). Some participants reported unrealised expectations with their 'scope-of-practice' which describes the breadth and depth of clinical skills required to work as a health professional, saying that they 'Enjoy working in a wide scope-of-practice'(QP5), there are 'opportunities related to scope-of-practice expansion' (QP87), and another saying 'I expected to be less supported by doctors and other colleagues, in fact I am well supported and never feel that help is not available' (QP57). In contrast, others reported negative experiences saying, 'I didn't realise how big the role is - there are only 3 of us for a target population of about 5000 plus' (QP42), and 'The work in remote region is markedly different to that in metro areas and was not what I expected. I have found the two clinical areas vastly different and initially had to adapt' (QP45).

Participants described their expectations about working in 'Indigenous Health' saying, 'it was as I expected, with a few curve balls as I was experiencing the different cultures' (QP2) and 'Indigenous health is also challenging' (QP110). Others described 'Adventure/Travel' expectations, saying 'I would never have imagined being able to travel to some of the places I have!' (QP151), and the 'distance to travel to/from jobs or to assistance for evacs, I never really understood the enormity of the job' (QP90). In addition, others identified that their experience differed from their expectations where they wanted to 'Make a Difference' saying, 'I expected to be more valued in communities sometimes you feel unwelcome even though you have the best intentions' (QP49), 'I am disappointed at times that I am not able to do more to help people as some people don't want to be helped' (QP135) and that it 'is challenging and I am often left wondering if we/I will ever make a difference' (QP184).

Participants reported that the remuneration did not meet their expectations saying, 'conditions and pay rates poor' (QP14) and that the 'Same position and pay elsewhere had a different organisational structure above it and therefore much less management and administrative workload' (QP99). Participants also described differences in the level of 'autonomy' they experienced, saying 'I expect[ed] to be autonomous, self sufficient, able to work beyond my job description' (QP64), 'Autonomy can be great because of the distance from major services' (QP150). Finally, in terms of the 'geography', participants most frequently described it as challenging saying, the 'environment is challenging' (QP112) and 'Weather conditions can be a challenge' (QP136).

While participants did not provide reasons for choosing to work in a remote region related to specific organisations, many participants described unmet expectations associated with management practices, such as, 'the support from line manager and wider management team is far below what was expected and actually below the minimum level of what is necessary to carry out the work effectively' (QP25), 'The work is often constant with demanding workloads' (QP53), and 'I also didn't realise until moving to a remote region how limited resources can be for work' (QP190). Others found the social context different to their expectations, saying 'there is a lot more violence than I anticipated' (QP83) and 'I was overwhelmed by the poverty in the remote communities and the lack of access to services' (QP149).

In summary, participants reported that the remote employment experiences differed from their expectations. The reasons that participants reported for choosing to work in remote regions were consistent with those aspects where expectations were unrealised, with additional aspects mainly related to their manager or organisational systems. The next section examines the findings from the two data sources using the overarching themes from the TI-HRM Framework to guide the discussion. The findings are firstly presented from the questionnaire and then the recruitment advertisements for each overarching theme: Contextual, Professional, Organisational and Personal.

Contextual

> *The engagement with communities and working on the ground is what I expected. However, the sheer volume of work that needs to be done in order to improve health outcomes is quite overwhelming. People used to tell me that working in remote Aboriginal and Torres Strait Islander settings was slower paced, but I have never worked harder in my life. The difference seems to be that you need to work a lot harder to achieve outcomes that are otherwise relatively easy to achieve in urban mainstream settings. I can see why people burn out easily* (Participant Q68).

Questionnaire

The contextual challenges discussed by participants included geographical challenges (Table 4.5). Many highlighted the differences in their expectations of the experience of working and living amongst social disadvantage as well as the challenges of providing health services to clients with different cultural, value and belief systems. For many, their limited or lack of personal awareness prior to working in the remote region contributed to the disparity in expectations.

Recruitment Advertisements

Only a small proportion of employers (13%) included information about the geographic location (Table 4.6). More than half of the advertisements that included geographic information were government employers (58%), followed by ACCHO (28%) and non-profit employers (14%). Most frequently Queensland employers (42%) included geographical location information, followed by Western Australia (32%) and the Northern Territory (24%). More than half of the advertisements that included geographic information were for nurses (57%), then medical (18%), allied health (17%) and IHWs (3%).

Table 4.6: Examples of 'Contextual' statements from the recruitment advertisements.

Geographic	This area has a sub-tropical climate and much of the areas you will be travelling into are on unsealed roads. We are now approaching the hot and humid season in the area, which will remain until the wet season arrives around December.
	Broome is situated in Western Australia's far north and is an oasis of colour, culture and eclectic characters.
	It's rural Australia, so this is not for everyone. You will be isolated, you will be hot! But the rewards outweigh the location.
Location	A highly rewarding role in family friendly community where kids still play in streets
	It is a visually attractive city due its immersion amongst the ochre-red soil of the Selwyn Ranges and the cool banks of the Leichhardt River... the mine is considered one of the greatest mines in the world.
	The township of ... offers the 'outback' experience, a laid back lifestyle while providing access to everyday needs and easy access to recreational activities ranging from sports, outdoor activities and social groups. Employees are encouraged to research the ... area (see suggested web sites below) to gain knowledge of the environment in which they will be situated in.

Professional

> *Autonomy can be great because of the distance ... but can also seem a long way from policy makers who do not understand unique needs of communities in remote areas* (Participant Q150).

Questionnaire

The difference in expectations on a professional level focused on clinical duties (e.g. competence, scope of practice) and duties exceeding their role description (Table 4.5). Several highlighted the differences between working in an urban setting and the remote

setting with one participant saying ‘Initially it was a big culture shock after coming from a major tertiary facility in Sydney - it seemed very backwards with practice and equipment’ (Participant Q189). In general, there were many comments about the work being clinically different, clinically demanding and about the scope of practice required in remote regions. For example, ‘Initially I thought it would be a "walk in the park" compared to working in NSW metro. How wrong was I - I never worked this hard in Metro’ (Participant Q37).

Recruitment Advertisements

The majority of the advertisements that promoted ‘scope of practice’ as an attraction factor were government employers (65%), followed by ACCHO employers (23%) and non-profit employers (12%). ‘Scope of practice’ was more frequently promoted for nurses (63%), with almost equal proportions for allied health (15%) and medical (14%). It was not mentioned in any advertisements for IHWs. Advertisements that included the opportunity to work in Indigenous health were for nurses (59%), allied health (16%), medical (10%), and IHWs (4%) (Table 7).

Table 4.7: Examples of ‘Professional’ statements from the recruitment advertisements.

Scope of Practice	Educated and endorsed to function autonomously and collaboratively in an advanced and expanded clinical role, as set out in their Practice Scope.
	Nurses with additional authorisations must apply to [the] Nursing Scope of Practice Committee to receive authority to practice prior to being able to perform the duties associated with such an authorisation.
Indigenous Health	Passionate about providing quality healthcare to Indigenous Australians
	You'll go home every day with a sense of accomplishment knowing that your work is contributing to the wellbeing of Yolngu people in the Homeland community.

Organisational

> *I did expect a greater degree of support and understanding from managers, I have now soemwhat [sic] adapted after having a series of managers with little knowledge of my profession in this particular context* (Participant Q133).

Questionnaire

When considering the differences in the experience from their expectations on an organisational level, most frequently participants described bureaucratic systems (e.g. inefficiency and waste), management support, employment conditions (e.g. workloads), workplace culture (e.g.

bullying), remuneration and remote incentives (Table 4.5). These factors are all consistent with those identified in the literature as factors that influence workforce sustainability in remote regions (Onnis & Pryce, 2016).

Recruitment Advertisements

The majority of advertisements using remuneration to attract potential applicants were government employers (72%), followed by ACCHOs (15%) and non-profit employers (11%). More than half were for positions in Queensland (54%), then Northern Territory (22%) and Western Australia (21%). Remuneration was most frequently promoted in advertisements for nurses (63%), then allied health (17%), medical (12%) and IHWs (4%) (Table 4.8).

Table 4.8: Examples of 'Organisational' statements from the recruitment advertisements

Remuneration and incentives	... pay one of the highest salary rates in Australia.
	The package - base salary + $200 per week remote allowance + salary sacrifice up to $16,000. You basically only have to pay for your food.
	We believe that you should be rewarded for working through, referring and remaining loyal to ... For this reason we have become the first and only recruitment company in Australia that have a direct alliance with Qantas to reward you with Frequent Flyer Points.
	... we also have a refer a friend scheme whereby if you refer a nurse to us and we place them in a position you are then eligible for an ipad mini (terms apply).
	New Zealand Midwives wanted for cashed up Australian contracts in 2015 "SHOW ME THE MIDWIVES" in 2015!! We have clients ... begging us for more midwives in 2015 - and do we have a deal for you!!
	Subsidised housing, 6 weeks annual leave, sick leave, RDO'S, free gym membership and general dentistry, generous Salary Sacrificing provision and 9.5% Superannuation.
	On top of the salary, you will have access to a Rural bonus, housing is provided, great team and work place, family friendly, compensates for remoteness.

Personal

> *The work is so much more than I expected. The bits that met my expectations were travelling, working with lots of amazing people, getting a lot of experience. I didn't expect that I would fall in love with this work and not be able to imagine working anywhere else. I also did not expect that the lifestyle I have developed would be so fulfilling and meaningful to me as a person* (Participant Q45).

Questionnaire

The personal factors influencing expectations were derived from intrinsic motivation, personal characteristics and preferences, wellbeing, and lifestyle (Table 4.5). Some participants explained that it met their expectations as they had some awareness of what their work would involve; however, others indicated that they were not aware of the personal characteristics necessary to adapt their new work (and living) environment. Several were taking advantage of the opportunity to travel and for others changes to personal circumstances allowed them to realise a lifelong dream working either in remote Australia or with Indigenous communities.

Recruitment Advertisements

The majority of advertisements that promoted lifestyle factors were government employers (61%), followed by ACCHOs (26%) and non-profit employers (11%). Lifestyle was more frequently promoted for roles in Queensland (42%), followed by Western Australia (33%) and the Northern Territory (23%). Most of the advertisements that promoted lifestyle were for nurses (66%), allied health (15%), medical (13%) and IHWs (1%) (Table 4.9).

Most of the advertisements promoting travel and adventure were offered as incentives to work for government organisations (57%) and ACCHOs (30%). However, of all the government advertisements reviewed, only 5% mentioned travel and adventure. This suggests that while travel and adventure are rarely mentioned, if they are mentioned it is more likely to be from a government employer. Adventure and travel were most frequently reported in advertisements for nurses (65%), then allied health (14%), medical (13%) and IHWs (1%).

Most of the advertisements that promoted 'making a difference' as an attraction factor were ACCHO employers (40%), closely followed by government employers (38%) and non-profit employers (21%). More than half of the advertisements that promoted 'making a difference' were for nurses (56%), and very few were for IHWs (2%). Interestingly, autonomy is often reported as being one of the benefits of working in remote regions; however, few advertisements promoted 'autonomy' or 'working autonomously'.

Summary

The findings suggest that there are a variety of factors that attract health professionals and there are also a variety of factors that contribute to whether or not the experience meets their expectations. However, there are several common factors that are at least partially within the control of the organisation during recruitment and those early weeks of orientation and socialisation into the remote workplace that may influence workforce

sustainability. One participant explained that 'more can be done to retain staff. The means are there but not enough effort' (Participant Q167).

Table 4.9: Examples of 'Personal' statements from the recruitment advertisements

Lifestyle	If you enjoy camping, adventure and an outdoor lifestyle, this is the place for you.
	Located at the Top End of the Cape – bring your fishing rod, sunscreen & a good book for your days off. There will be plenty of time to enjoy the island view!
	Peaceful and laid-back lifestyle in a truly tropical environment.
	They work hard but balance this with an amazing lifestyle and incentives.
	Your lifestyle is *Your* choice.
Adventure/Travel	Calling out to all Registered Nurses - Love to Travel and Work? Apply Now!
	We will offer you the experience and adventure of a lifetime
	Do you want to experience a bit of the Australian outback where the most traffic you will have will be cattle and kangaroos? Are you keen for a well-paid adventure?
Make a difference	This is a once in a lifetime opportunity to make a difference and experience something out of the ordinary
	Rural nursing is more than just your hours at work, it's being part of a community and making a real difference in the relatively short time you have.
Autonomy	You will be expected to work autonomously at times.
	This is a relaxed and flexible role ... You see two patients per day and if you finish with the patients early, you simply go home for the day. Some of the staff choose to finish early and go fishing or goanna hunting with the locals!

4.5.4 Examining the influence that espoused HRM policies have on remote workforce attraction and expectations

> *We believe that our organisation cannot provide quality services or grow faster than its ability to attract and retain the 'right' people* (Recruitment Advertisement, 2015).

Of the fifteen emergent themes explaining why current remote health professionals chose to work in remote regions (Table 4.3), there were eight that could be used by organisations to attract health professionals (Table 4.4). Recruitment advertisements are 'not just a statement about the ideal person required for a particular position' they also inform the potential applicant

about the organisation's suitability for their career aspirations (Green & Dalton, 2007, p.5). More specifically, recruitment advertisements can be considered 'public documents that provide raw material for cultural and occupational analyses' (Cullen, 2004, p.283). Baum and Kabst (2014) found that attraction through print advertising and websites is mediated through 'employer knowledge' further strengthening the importance for organisations to manage their brand effectively if they wish to attract competent health professionals to remote regions in the current labour market. Thus, 'recruitment activities and employer knowledge are linked to applicant's choice of an employer' (Baum & Kabst, 2014, p.356).

In general, recruitment advertisements include a brief overview of the organization, historical information. Many of the recruitment advertisements in this study provided background information about the organisation, the geography and the location. Most frequently they described idyllic romanticised locations with sunsets, tropical views, red earth and warm climates. Only a handful provided less idealistic descriptions, such as, 'hot and humid', 'much of the areas you will be travelling into are on unsealed roads' and 'You will be isolated, you will be hot!' There appears to be an opportunity to move the romanticised image closer to the experience described by health professionals for organisations operating in these geographical stunning areas with extreme geographic challenges.

Recruitment advertisements also describe what is on offer in terms of compensation, benefits and career development (Rai & Kothari, 2008). Incentive payments for remote doctors and the Remote Area Nursing Incentive Package (RANIP) offered to remote-based nurses in Queensland were heavily promoted in the advertisements. Occupational differences between remuneration and incentives are challenging for managers, particular when they are not associated with performance (Deci, 1972; Santhanam et al., 2006). In addition, incentives are often based on criteria such as occupation or completion of a defined period of time in a remote location. As an indicator, in this study, of the 157 participants who identified their occupation and reported receiving a remote area incentive, 67% were nurses and 32% were allied health professionals. The large incentive payments offered in recruitment advertising sends a message to potential applicants about the remuneration and incentives that are on offer, areas of high need and to some extent enable those more extrinsically motivated health professionals to choose organisations based on remuneration packages. Organisations with the capacity to provide these incentives appeared more likely to use them to attract potential applicants. However, few participants (4%) reported that remuneration was the reason that they chose to work in a remote region.

According to De Gieter and Hofmans (2015) while financial incentives may improve attraction they do not contribute to increased retention. Ko and Hur (2014) suggest that it is intrinsic factors and employment relationships that positively influence retention. Green and Dalton (2007) found that people often choose to work in the non-profit sector for the values and goals of the employer, and the nature of the actual work. A large number of participants who reported an intrinsic motivation for choosing to work in a remote region, e.g. 'lifestyle', 'adventure', 'autonomy', 'desire', 'to work with Indigenous health', 'rural upbringing', realising a wider 'scope of practice' and 'to make a difference'. In fact, almost three quarters of participants (74%) reported to be intrinsically motivated, yet much of the advertising does not emphasise the intrinsic rewards of working in remote regions. While it was not evident in this study, empirical evidence suggests that 'non-profit organisations tend to be more values expressive and that they generally attract employees that derive an intrinsic satisfaction from working for organisations with a social mission' (Green & Dalton, 2007, p.1). Further investigation in this area is warranted particularly as a review of the literature found that many health professionals are attracted to remote work and remain in remote areas due to the intrinsic rewards (Onnis & Pryce, 2016). This suggests that the findings from the non-profit sector may be relevant to aspects of for-profit organisations delivering similar types of community health services in geographically isolated and remote regions.

Other factors associated with geographically remote work promoted in the recruitment advertisements include the 'adventurous' aspects of remote work which attempt to attract those interested in the adventurous aspects of working in remote regions, e.g. 'Calling Rural Superheroes ... To be successful you must be an all-round experienced generalist; fearless, flexible and ready to wear your red undies on the outside superhero style.' These advertisements together with the ones using humorous catch phrases may be viewed as under valuing the high levels of clinical competence required to work in remote regions and the endless hours of flying or driving on long hot dusty roads between clinics and clients. This study found that recruitment Agencies were more likely to use these type of catch phrases in their advertising, suggesting that they were more actively using marketing approaches to attract potential clients, e.g. 'Midwives are as HOT AS BURNT TOAST in Australia and we simply CANNOT get enough of them'. In addition, it was only recruitment Agencies that offered incentives like an opportunity to win a free iPad for a successful referral. Many recruitment advertisements contained the organisation's values, vision and mission. Green and Dalton (2007, p.5) report 'that people join, succeed and stay with organisations where there is a strong alignment between the organisational culture and values and the individual's values and direction.' Hence, most people seek jobs with employers whose values, traits and characteristics are perceived to be similar to their own (Green & Dalton, 2007; Lee et al., 2011).

In terms of employer knowledge organisations recruiting through Agencies may miss an opportunity to communicate their employer brand to potential applicants as the recruitment advertisements in this study were agency branded, thus communicating the Agency's values, mission and vision (Baum & Kabst, 2014). These values, missions and vision contribute to psychological contract formation.

A large proportion of the participants in this study offered reasons suggesting an intrinsically motivated choice to work in remote regions, therefore, the difference between expectations and the experience may be explained using psychological contract theory. More than half of the recruitment advertisements contained information about remuneration and incentives, developing expectations of what employees will receive from the employer. The potential applicant develops an expectation of what they will receive financially from the employer and as recruitment and selection progresses they will be offered a package outlining their remuneration and incentive entitlements, there may be some opportunity to create a psychological contract here if the manager creates expectations about additional incentives. Although they are unwritten, if the employee sees them as part of their unwritten contract, a transactional psychological contract is formed.

In addition, the recruitment advertising often claimed to provide opportunities to 'make a difference' and described lifestyles that included leaving early to go fishing which creates expectations about the position and the employer. Employees who make decisions based on these espoused employment conditions may create a relational psychological contract with their employer where they anticipate a relaxed lifestyle of fishing and camping in exchange for providing the clinical services listed in the role description. If the employment experience results in the employee feeling that the employer has not provided their part of the arrangement, for example, large workloads or 24-hour on-call responsibilities which inhibit the freedom to go fishing after work, the employee may feel that the employer has breached or even violated the psychological contract. The term violation and breach are sometimes used interchangeably (Zhao et al., 2007); however, they are two distinct aspects of the psychological contract. As described in chapter two a breach is described as the cognitive evaluation, that is, a mental calculation of what has been received compared to what they believe was promised, whereas, violation is the emotional response that may follow the perceived breach (Knights & Kennedy, 2005; Zhao et al., 2007). In other words, a violation is an outcome of breach, and the emotion of the violation is most likely translated into the behaviour that results in voluntary turnover (O'Donohue & Nelson, 2007; Zhao et al., 2007).

Romanticised and unrealistic recruitment advertising creates expectations and psychological contract formation which may be a contributing factor for high turnover and workforce instability in some remote regions. While much of the literature focused on the employee's perception, Guest (1998) argued that it was essential to also consider the employer's perspective. For example, the perceived breach may be 'a case of false expectations rather than evidence of management overtly reneging on promises that are 'believed' to have been made' (Cullinane & Dundon, 2006, p.119). External market pressures, incongruent employment relationships, organisational structures and institutional inertia may all contribute to a perceived breach, so, 'if employers fail to deliver their side of the deal, it may not be managements' fault' (Cullinane & Dundon, 2006, p.121). However, management can minimise the potential for such psychological contract breaches through transparent and realistic recruitment practices. For organisations competing in a market of global workforce shortage the challenge of attracting talent to a geographically unattractive region whilst maintaining a sense of realism about the working conditions and environment is beneficial. For organisations working towards workforce sustainability it is essential.

4.5.5 Summary: Espoused HRM Policies and remote health workforce sustainability

In summary, this thesis identified eight reasons why health professionals chose to work in remote northern Australia that could be used to attract health professionals to remote regions. An analysis of recruitment advertisements found that they contain content comparable with the reasons for working in a remote region offered by health professionals. While they are consistent, the data suggests that many organisations are missing opportunities to target potential applicants with the type of information that motivates health professionals to work in remote northern Australia. In fact, using more effective recruitment advertising strategies could increase the number of applicants providing organisations with an opportunity to recruit for person-organisation fit.

Recruitment advertising not only promotes the employer brand, it is the commencement of the employment relationship, as such, it is here that the psychological contract formation commences. Realistic recruitment advertisements that attract health professionals to remote regions will benefit organisations experiencing high turnover in two ways. Firstly, they increase the quantity and quality of potential applicants and secondly, the employee commences the employment relationship in a more positive manner as the information communicated about the organisation, the role and the remote context contributes to more realistic psychological contract formation.

Overall, while recruitment advertisements are using appropriate content to attract health professionals working in remote regions there is considerable scope for improvement. Organisations can improve their employer brand, reduce turnover and support workforce sustainability through more focused recruitment advertising that seeks to attract health professionals using the factors that health professionals currently working in remote regions find attractive.

4.6 Conclusion

This chapter sought to address the research question (RQ1): *What are the espoused HRM policies and how do they influence remote health workforce sustainability?* It commenced by examining the espoused HRM policies communicated to potential employees through recruitment advertisements. Analysis found evidence of espoused HRM policies congruent with the four HRM policy choices described by Beer et al. (1984). The literature suggested that the success of HRM policies are often reduced through management practices, more specifically, the interpretation and implementation of HRM policies by managers with competing priorities. The second section identified the reasons why current health professionals chose to work in remote regions and then examined how the experience met their expectations. This empirical evidence provided insights, including quantitative data analysis that contributes to informing a known gap in the research literature. Furthermore, the findings provided further evidence to complement the espoused HRM policies identified in the first section of the chapter.

In conclusion, the espoused HRM policies contained in the recruitment advertisements are consistent with content appropriate to attract health professionals as described in the literature. The espoused policies appear to influence workforce sustainability in three ways: attracting health professionals; psychological contract formation; and localised management practices. More focused recruitment practices that seek to attract health professionals using the themes that health professionals currently working in remote tropical northern Australia find attractive are recommended. Recruitment is only one component of an integrated HRM approach to remote health workforce sustainability. In a geographically remote context, management practices that value the experience of current employees and provide strategic HRM solutions to workforce challenges are essential. Hence, tailoring recruitment practices to the remote context improves workforce stability which in geographically remote regions of tropical northern Australia, improves access to healthcare services.

Differences between the espoused HRM policies and the remote health professional's experience, contribute to psychological contract breaches (both relational and transactional

which may increase voluntary turnover and therefore, influence workforce sustainability. Incorporating the factors that current health professionals report as being attractive about working in remote regions in recruitment advertising will be beneficial for recruitment. However, the findings suggest that improvements for health workforce sustainability should be focused on the management practices around interpretation, implementation and localisation of HRM policies in remote workplaces.

4.7 Chapter summary

- Recruitment advertisements communicate HRM policies to potential employees
- There were espoused HRM policies in 98.6% of the recruitment advertisements
- Espoused HRM policies contribute to psychological contract formation prior to employment
- Few advertised management positions had mandatory requirements for management qualifications, previous management experience or experience in a remote region.
- Recruitment advertisements attract potential employees; retention involves meeting their expectations
- Current remote health professionals can provide insight into the factors that attracted them to remote work
- Remuneration was frequently communicated in advertisements
- The espoused HRM policies influence remote health workforce sustainability.

Chapter Five: What is a Sustainable Remote Health Workforce?

5.0 Chapter overview

5.1 Declaration: Previously published material

5.2 Introduction

5.3 Methods

5.4 Results

5.4.1 People

5.4.2 Practice

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5.5 Discussion

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5.7 Chapter summary

5.0 Chapter overview

This chapter examines how remote health professionals described a sustainable remote health workforce; and how they proposed it could be achieved. The chapter commences with an examination of the characteristics of a sustainable remote health workforce as described by health professionals currently working in remote areas. The analysis identified three extant themes - people, practice and place.

The chapter goes on to explain that many participants believed a sustainable remote health workforce was achievable, describing management practices that could improve workforce sustainability. The chapter concludes suggesting that management practices influence the outcomes of many of the HRM policy choices that provide opportunities to improve retention. This chapter seeks to answer the research question (RQ2): *What is a sustainable remote health workforce?*

5.1 Declaration: Previously published material

Portions of the following section were published in a paper entitled 'What is a sustainable remote health workforce?: People, Practice and Place' in the journal, *Rural and Remote Health*.

5.2 Introduction

> *A sustainable workforce is one which is not person-dependent but at the same time values the individual skills, experiences and ideas a person can bring to a role ... It is one that is able to provide continuous, reliable and safe care to patients ... because staff are appropriately skilled, oriented, supported and rewarded. It is one where staff movement is pre-empted, planned and refilled in a timely and appropriate manner. It is one that doesn't rely on agency and locum staff, but grows a local workforce wherever possible and provides the same incentive packages as those afforded outsiders. It is one which is open to innovation and challenges the status quo with regards to new models of care and expanded scopes of practice, and recognises the skills all individuals bring to the cause. It can be achieved by employing people who are passionate about their job and love a rural/remote lifestyle.* (QP172)

Described so eloquently in the above passage, the achievement of a sustainable remote health workforce is complicated by the many factors that are considered key attributes of a health service that operates to meet the needs of clients, community, health professionals and stakeholders. The challenges resonate with health professionals in remote areas across the

world. Attracting and retaining health professionals in rural and remote regions is a global challenge, exacerbated by the disparity of distribution between urban and rural areas (Wakerman & Humphreys, 2012; WHO, 2010). Workforce shortages intensify challenges associated not only with attraction and retention; they reduce access to health services for vulnerable populations who experience poorer health outcomes than urban populations (Perkins, Larsen, Lyle & Burns, 2007; Wakerman & Humphreys, 2012; WHO, 2010). While many researchers have identified factors that influence voluntary turnover and workforce retention (Buykx et al., 2010; Campbell et al., 2012; Onnis & Pryce, 2016) others have focused on the sustainability of health systems and health workforces (Humphreys et al., 2006; Wakerman & Humphreys, 2012).

In discussing sustainability, it is essential to determine what is meant by sustainability as ambiguity may lessen the impact of the narrative. Humphreys et al. (2006, p.33) propose that for 'the rural and remote health context, the concept of sustainability refers to the ability of a health service to provide ongoing access to appropriate quality care in a cost-efficient and health effective manner'. Thus, this thesis considers that efforts to improve workforce sustainability should be compatible with these objectives and as such, workforce sustainability refers to the continual supply of competent health professionals to provide health services in a manner appropriate to the remote context as well as being congruent with the organisation, the community and their own values. Ultimately, sustainability is built on a strong foundation with appropriate leadership and management practices prepared to meet the challenges and respond to the opportunities, ensuring the needs of all interested parties continues to be realised. Humphreys et al. (2006, p.35) conclude that sustainable rural health services must take 'account of the social, economic and environmental dimensions influencing sustainability' suggesting that the three key considerations were 'access to services, quality of care and cost of their provision'. Others have also emphasised the importance of access to health services in improving the health of rural and remote populations (Fisher & Fraser, 2010; Hunter et al., 2013; Wakerman & Humphreys, 2012).

This thesis contributes to the research in this field by examining the challenges from the perspectives of health professionals who are currently working in remote regions across various professions (nursing, medical, Indigenous health workers, allied health and dental), areas where research gaps have been identified (WHO, 2010; Onnis & Pryce, 2016; Buykx et al., 2010). This approach seeks to identify aspects of workforce sustainability beyond the boundaries of a particular health profession. Acknowledging the work of researchers who have examined turnover and retention of particular rural and remote workforces including nurses (Garnett et al., 2008; Hegney et al., 2002a; Humphreys et al., 2006), doctors (Hays et al., 2003; Humphreys et

al., 2002) and allied health professionals (Kruger & Tennant, 2005; O'Toole & Schoo, 2010), this thesis seeks to build on current knowledge using a complementary approach. The characteristics of a sustainable remote health workforce emerged through using a management lens to examine how current remote health professionals describe a sustainable remote health workforce.

Wakerman and Humphries (2012) caution against focusing on a workforce in isolation and while this point is well-founded, there are always risks in considering aspects of a complex issue in isolation. However, focusing on one aspect enables the researcher to consider the issue at a deeper level and often provides an opportunity to use an alternative lens with which to view the issue. For this thesis, a management lens offers an alternative perspective with a complementary body of evidence through which to examine the issue. Furthermore, this provides the opportunity to use a pragmatic approach more suited to finding solutions than identifying problems which moves away from the deficit approach (Gorton, 2015; Wakerman & Humphreys, 2012).

This aim of this chapter was to examine how remote health professionals describe a sustainable remote health workforce and how they propose it could be achieved. The findings from two data sources were examined to determine the characteristics of a remote health workforce from the perspective of health professionals who are currently working in remote northern Australia. These findings contribute to addressing the research question 'What is a sustainable remote health workforce?' This not only provided an opportunity for those currently experiencing the challenges that are frequently discussed in academic circles and board rooms, to contribute to the discussion from their geographically isolated workplaces, it confirmed the value of their perspective in this narrative. As seen in the opening passage remote health professionals have much to offer this discussion.

5.3 Methods

This article analyses the findings from two separate yet complementary data sources – interviews and online questionnaires. Interview participants (IP) were asked the following question, '...this project is called a Sustainable Remote Health Workforce, in your own words, what do you think a sustainable remote health workforce would be? What would it look like?' Their descriptions of the characteristics of a sustainable remote health workforce provide evidence for the ways in which these participants view a sustainable remote health workforce. A thematic analysis of the transcripts (n=24) was conducted using NVIVO10 and the emergent themes formed the first level coding. These emergent themes were then used to guide data

analysis for the responses from the questionnaire where current remote health professionals were asked the same question.

The online questionnaire was distributed to health professionals living and/or working in remote regions of northern Australia. This chapter discusses the findings for the 191 questionnaire participants (QP) who provided a written response to the question 'this project is called 'A Sustainable Remote Health Workforce'. In your own words, what is a sustainable remote workforce? How could it be achieved?' A thematic analysis of the text responses was conducted using NVIVO10 using the emergent themes from the interview data to guide analysis. The findings from both approaches were compared and contrasted to capture the breadth and depth of the characteristics of a sustainable remote health workforce identified in this thesis.

5.4 Results

> *A sustainable remote health workforce will only be achieved through financial equity and good working conditions* (QP126).

The characteristics of a sustainable remote health workforce, as described by participants, were diverse and varied; however, there were many common characteristics. Analysis of the data from the interviews revealed that there were three extant themes - people, practice and place. Furthermore, analysis of the questionnaire data identified themes consistent with the findings from the interview data suggesting that many similar characteristics are observed by both managers and remote health professionals. The extant themes and their influence on the attainment of a sustainable remote workforce are examined with a summary of the key characteristics presented in Tables 1-3. Thus, this section examines the characteristics of a sustainable remote health workforce using the three extant themes - people, practice and place.

5.4.1 People

> *[T]here needs to be some sort of selection process so that we have people working in remote health for who it's a career, it's a passion, not just a holiday to pay the mortgage. ... part of the sustainability would be recognising that remote and isolated practice is actually a specialty area ... Not just anyone who has a registered nurse qualification can actually be a remote area nurse, nor should they be* (IP1).

Participants discussed aspects of personal characteristics and professional attributes for individual health professionals; however, there were differences in terms of the priority of aspects, for example, should the priority be person-fit, competence, or relationships. Most participants discussed aspects of 'person-fit', explaining the importance of employing the right people for remote regions. While there was no consensus of whom the right person was or how to recruit them, there was a strong sense that personal characteristics play an important role in the decision.

Participants also suggested that professional attributes of each individual contribute to the sustainability of the entire workforce. Professional attributes included: competence, professional development and career choices. Several participants commented on career paths with one suggesting that remote nursing be considered a speciality area of nursing providing a more defined career path. Thus, the impact of improvements with access to professional development for competence and remote career paths may generate an increase in remote career options contributing to increased remote health workforce sustainability. The 'person' characteristics described by the questionnaire participants are summarised in Table 5.1.

Table 5.1: 'Person' characteristics of a sustainable remote health workforce identified by questionnaire participants

Person - Personal Characteristics	
Person-fit	New employees are prepared for the reality Needs and aspirations are fulfilled Understand the challenges of living remote Like living and working remote Job satisfaction, engaged and proud of their work
Individual Sustainability	Recognises early warning signs of fatigue and excessive workload Resilience, energy and passion for work is sustainable Quality of life outside of work Employer supported work life balance, regular breaks from the remote site Beyond financial benefits gain true joy from the work they are doing
Relationships	Regular staff improve community relationships Working collaboratively without prejudice People need to feel connected to someone for something to last Engaging community in decision making People don't leave organisations they leave people!
Person - Professional Attributes	
Competence	Mix of experience and qualifications Multi-disciplinary clinical teams Knowledge and experience built upon over time Management have a sound grounding in rural/remote practice Improve leadership in management

Professional Development	Regular professional development is more accessible Professional development specific to remote area work Professionals development opportunities for local people Opportunities for exchange/rotation with major centres Mentoring with specialised staff to gain local knowledge and competency Opportunities for staff to grow within their roles, i.e. grow own workforce
Career choices	Career development including career options for Indigenous employees Large skill set of health professionals working in remote communities Discourage people on fixed term contracts to go back to metro areas Those that want to work for a limited time exploring an area Rural graduate training programs in all disciplines Recognise that a remote health career is as exciting and challenging as a career in a in a tertiary hospital in the city

5.4.2 Practice

> *A sustainable remote workforce to me is an organisation being able to have a workforce that is capable of delivering a service at 100%* (QP136).

There were two aspects of practice reported that contribute to sustainability: clinical practices and management practices. Clinical practices include aspects of health service delivery. Management practices describe aspects of organisation and health system policy and practice that participants identified as contributing to the sustainability of the remote health workforce.

Participants suggested that turnover and vacancies impact on continuous service provision, for example, one respondent said, 'you need to be realistic with sustainable, but I guess it would be something like ensuring that 95% of your positions remained filled' (IP5). There were contrasting views with some proposing that continuity of care was closely associated to continuity of health professionals, e.g. 'our poor clients, they have such a change of faces, and it takes so long to develop that relationship' (IP5). In contrast, another participant suggested that 'the way forward would be similar to mining and having a FIFO system' (IP6).

> *A sustainable workforce does not mean people who work in one position/one site for a long time. It means the positions give individuals the opportunity to grow in their field and are supported during their tenure* (QP162).

Management practices contribute to the sustainability of the remote health workforce according to the participants in various ways, including: filling vacancies, backfill, attracting health professionals, remuneration and financial incentives, employment patterns and models of practice (e.g. FIFO). More specifically, some participants suggested that improvements in the competency of managers will influence sustainability, for example, one participant commented,

'we need managers to actually be skilled in distance management just because they are able to manage a team face-to-face doesn't mean they have any capability of managing a team from a distance' (IP1). The 'practice' characteristics described by the questionnaire participants are summarised in Table 5.2.

Table 5.2: 'Practice' characteristics of a sustainable remote health workforce identified by questionnaire participants

Clinical practice	
Model of practice	FIFO professionals support the remote-based workforce Not dependent on FIFO or agency staff FIFO is a viable solution when attracting reliable resident staff is unachievable Consistency rather than different locums each time FIFO maintains some normality to life
Continuity of staff	Health professionals to stay for longer length of times Workforce that provides long term continuity of care Low turnover so that there are permanent staff at local clinics who know the community and the system instead of a constant flow of relief workers. Succession planning
Management practice	
Employee Flow	Provides sufficient funded positions to ensure leave entitlements can be taken Leave provisions that provide for the geographical challenges of remoteness Job security Sufficient core permanent staff
Work systems	Understand what remote work entails Mechanisms for people to think through the complexities of remote work so they don't get discouraged Personalised support as each new worker is not starting from the same place Support so that they are better equipped to cope with everyday challenges. Supportive supervision/management whilst encouraging autonomy No bullying Effective management practices allow employee voice Open communication Encourages (almost insists upon) regular leave Responsive managers who understand the work demands in remote areas Feel valued and respected Recognition by capital city bases of are unique geographical differences Administrative support is essential Different things work for different areas Cut system and policy overhead to reduce time-cost Promotions based on skill set not length of time served in remote area Workplace health and safety funding same as metropolitan areas Prepared, empowered and supported workforce Free from policy and system generated inefficiency and overheads

Reward Systems	Adequate financial rewards Incentives to live and stay in remote areas Fair remuneration and remote compensation across entire workforce Provides incentives for long term staff not just new employees Incentives that would be an enticement to stay in a remote community Incentives for people who are recruited from the area, as well as people who are recruited from outside the area Provisions to cash in annual leave, airfares etc

5.4.3 Place

> *[S]ustainable remote health workforce is actually a workforce that is developed from the community and it is a workforce that the community accepts as well. I think there's not enough attention paid to the right fit in a community* (IP3).

Various aspects of workforce sustainability that described a connection with place were discussed suggesting that aspects of the physical work environment such as infrastructure and resources contribute to sustainability. For example, health professionals suggested that it's about 'a workforce that the community accepts' (IP3); and that a sustainable remote health workforce 'needs to have people that are living in the community that belong to the community' (IP12). In addition, sustainability may be achieved through 'greater connectivity between the different providers' highlighting that 'a sustainable remote health workforce is actually having appropriate people delivering [health services] according to the population needs' (IP3).

Accommodation in remote regions was a frequently mentioned infrastructure concern with participants suggesting that addressing accommodation inadequacies was essential. Many health professionals provided narrative about their experiences with poor accommodation with one manager, emphasising that 'whilst we all want to be intrinsically motivated' accommodation is important because if they had 'dodgy accommodation, if people weren't sure if they were going to be assaulted in the night ... [it] doesn't matter what the manager does, you not going to keep them there' (IP11). This suggests that the influence of infrastructure is such that, the absence of basic conditions impacts the ability of management practices to improve retention, and in fact, they are suggesting that management practices are negated in these circumstances. The 'place' characteristics described by the questionnaire participants are summarised in Table 5.3.

Table 5.3: 'Place' characteristics of a sustainable remote health workforce identified by questionnaire participants

Place - Connection with place	
Community	Integrated into the community People stay and connect with their community properly Call rural and remote Australia home, and not just a source of adventure Respected by the community and the workforce genuinely care and respect the community People from the area will have firm connections to family and friends Respects different cultures and their beliefs Balances health services with what is best for the communities it serves Continuous and appropriate service for the community it serves
Local workforce	Put local community members with cultural knowledge at the forefront of healthcare Recruits locally or from 'like remote areas' Values its local workforce and encourages staff to remain for years not months Recruit and develop local people Communities work with employers to ensure sustainability of workforce Does not require ongoing recruitment outside the area Workforce develops remaining appropriate for the context
Place - Infrastructure	
Connectivity	All health organisations working together as one Less duplication of services Recruitment pool across the remote regions Communication between organisations when recruiting Share positions between organisations
Resources	Housing for local employees not just employees coming from other areas Safe, affordable housing in a quiet part of the community Accommodation incentives for permanent staff if they own their own home The free accommodation needs to be across the board for all employees Accommodation that is suitable for couples and families Sufficient infrastructure Modern facilities with up-to-date technology and access to expert knowledge Technology and equipment equivalent to that of urban and regional centres Meets future population health needs

5.5 Discussion

Management practices were highlighted as being critical for developing, implementing and maintaining the sustainability of remote health workforces. In an effort to improve health services for the vulnerable populations that live in remote regions of Australia, research investigating turnover and retention has identified that management practices are interrelated with other aspects of remote healthcare (Buykx et al., 2010; Humphreys et al., 2008; Onnis & Pryce, 2016). Buykx et al. (2010) reported that efficient management is necessary for effective

and sustainable workplace organisation. More recently, the influence of managers on the sustainability of rural/remote health services in general, and remote workforces has been more specifically highlighted (Onnis, 2014; Onnis & Dyer, in press; WHO, 2010). Management practices build the foundation of workforces, particularly in remote regions where health services do not underestimate the value of having the right person, with the right skills, in the right place, at the right time. (Buykx et al., 2010; RHSC, 2012)

This thesis examined three extant factors that influence the achievement of a sustainable remote health workforce; however, it does acknowledge the influence of factors outside the scope of this thesis, such as political, economical, social and environmental factors (Figure 5.1). While these factors contribute to the holistic approach needed to achieve workforce sustainability it is beyond the scope of this thesis to specifically comment on their influence other than to agree with the current evidence that improvements to healthcare funding, socio-economic and environmental conditions that benefit the health outcomes for rural and remote populations are a critical component of sustainability (Humphreys et al., 2006; Humphreys et al., 2008; RHSC, 2012).

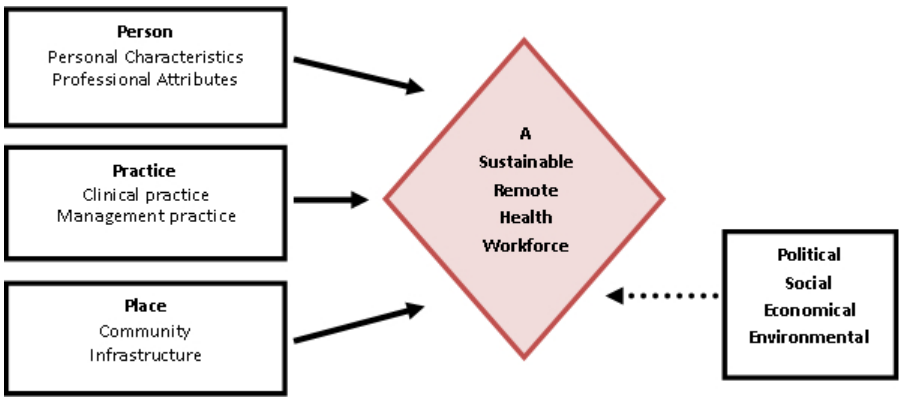

Figure 5.1: Characteristics of a sustainable remote health workforce

The person factors highlighted in this thesis are not remarkable. Most participants suggested that a sustainable remote health workforce comprised of aspects that exist in any healthy employment relationship. Many aspects described by the remote health professionals can be found in the literature (Buykx et al., 2010; Onnis & Pryce, 2016; RHSC, 2012). They describe it as being a workforce where competent, resilient and passionate people who like the environment in which they work, have access to adequate regular leave and professional development opportunities and career choices including opportunities to gain new skills and for

advancement (Campbell et al., 2012; Onnis & Pryce, 2016). Within this flexible work environment healthy relationships with colleagues and managers enhance collaboration, and engagement with the local community (Devine, 2006; Onnis & Pryce, 2016). New employees who are well prepared for the remote workplace are welcomed and orientated in localised practices (Kent-Wilkinson et al., 2010; Onnis & Pryce, 2016).

If the practice factors are included in this description it appears that competent, engaged health professionals with high levels of job satisfaction acknowledge the benefit of the regular FIFO health professionals who frequently visit the remote location (Hunter et al., 2013; Hussain et al., 2015; Margolis, 2012). These regular FIFO health professionals provide relief and additional clinical knowledge improving health outcomes for the community whilst also providing continuity of care where these clinical services are not available locally (Hunter et al., 2013; Hussain et al., 2015). Managers support the workforce through clear communication, genuine understanding of the challenges of remote work environments including adequate health and safety, maintaining reasonable levels of core staff, backfill and expediently filling vacancies (Bent, 1999; Devine, 2006; Fisher & Fraser, 2010; Kruger & Tennant, 2005).

Overall remuneration is adequate; however, there needs to be more consideration about the equity in how rewards and incentives are distributed between people, professionals and geographic locations (Buykx et al., 2010; RHSC, 2012; WHO, 2010). Campbell et al. (2012) cite Herzberg's motivation-hygiene theory highlighting that employees need sufficient extrinsic motivators to not feel dissatisfied, before the intrinsic motivators that are present in the work itself will lead to job satisfaction. Remuneration and incentives are extrinsic motivators and so too are aspects of the place such as infrastructure and accommodation.

In terms of place, the accommodation could be improved, infrastructure and equipment should be modern and maintained, and the opportunities to develop the local workforce should be implemented (Hussain et al., 2015; WHO, 2010). Management cannot influence the community's acceptance of individual health workers; however, they could work with community members to ensure appropriate person-fit and then support their adjustment into the remote community. Finally, improved collaboration between health service providers can reduce duplication of services, provide opportunities for professional development, career pathways and develop opportunities to share 'talent' in remote regions that may benefit the health professional, the community and health service providers (Buykx et al., 2010).

Interestingly, the health professionals who participated in this thesis provided a realistic and pragmatic contribution to the discussion. They described a sustainable remote health workforce

in terms of the people that comprise it, the people that have a stake in it and the people who manage it; yet remain focused on the overall purpose – providing appropriate health services for remote populations. While several suggest improving current resources such as housing and clinic equipment, many suggest areas where sustainability arises from equity (Buykx et al., 2010). In particular they suggest that the inequity in incentive payments between clinical disciplines influences retention where health professionals work in teams of equivalent contribution (Hegney et al., 2002c; Santhanam et al., 2006; WHO, 2010). Similarly, they highlight the difference in incentives and benefits offered to attract new health professionals compared to those received by community-residents or long term health professionals. This disparity appears to make the long-term health professional feel less valued. In addition, the apparent inequity between the infrastructure and resources further contribute to the sense of inequity.

In remote regions where chronic workforce shortages are reported (Hunter et al., 2013; Hussain et al., 2015) attention to both attraction and retention are critical. Health professionals make decisions about remaining from within the practice setting (Cutchin, 1997; Onnis & Dyer, in press). This suggests that an increased focus on retaining those less transient health professionals, such as those with community ties or long-term community-based histories, should be areas in which retention rewards are focused. This approach would avoid feelings of being disadvantaged, as described by some remote health professionals. For example, one participant said 'free accommodation needs to be across the board for all employees, not just the ones who come from outside our area (needs to be fair to locals who want to stay' (QP58). Drawing from psychological contract theory, which describes the unwritten contracts that exist between an employer and an employee (Knights & Kennedy, 2005), it appears that these perceived inequities may be factors that fuel dissatisfaction. Management practices that minimise dissatisfaction are paramount in areas where turnover is high. Management practices that are perceived as fair, make all employees feel valued and reinforce the balance of reciprocity (Brunetto & Farr-Wharton, 2002; Knights & Kennedy, 2005; Ko & Hur, 2014) and are less likely to breach an employee's perception of the psychological contract. Such fair practices traditionally influence retention through management concepts such as: organisational commitment, occupational citizenship behaviour, and job satisfaction (Coyle-Shapiro & Kessler, 2000; Knights & Kennedy, 2005).

Leadership is a key aspect of effective management practices, as was pointed out by one participant:

> *[R]emote services have the opportunity to be more flexible and innovative than large metropolitan services but they need good leadership and the options to do*

things in ways that work well for their particular areas. Sometimes it just does not work trying to apply models that work well in other parts of the country (QP122).

Hence, remote health leadership and effective management practices appear to be the way to further develop and maintain sustainability of remote health workforces (Buykx et al., 2010; Onnis & Dyer, in press; RHSC, 2012). WHO (2010) suggest there is a need for further evaluation of the varied attraction and retention strategies implemented. They report that 'policy-makers should be aware of the potential sensitivities surrounding giving health workers specific financial incentives' (WHO, 2010, p.29) going on to describe the problems that this may cause with others not covered under the incentive schemes. Buykx et al. (2010, p.102) report on a systematic literature review which found that despite increased financial incentives for medical professionals, with the exception of overseas medical graduates mandated to work in areas of workforce shortage, 'there is little evidence that these incentives have made any significant difference to the medical workforce supply in underserved areas'. While incentives have been the focus for improving retention, WHO (2010) suggest that personal and professional support for isolated health professionals is a complementary intervention and that they are more 'likely to augment each others' impact but are ineffective in isolation'(WHO, 2010, p.30). In fact, WHO (2010) say that a core requirement for all of the retention incentives and interventions 'to be effective will come from developing, deploying and motivating effective local service managers and strengthening human resources management systems (WHO, 2010, p.30). The WHO (2010) findings are conveying a similar message to that of the remote managers and health professionals reported in this thesis, when proposing that incentives and rewards in isolation are not effective in improving long-term workforce retention (RHSC, 2012; WHO, 2010). Furthermore, both suggest that a supportive work environment and management practices that are congruent with the remote context, when combined with retention incentives and rewards, are more likely to influence workforce sustainability in the long-term (Fisher & Fraser, 2010; Onnis & Dyer, in press).

5.6 Conclusion

This chapter sought to answer the research question: *What is a sustainable remote health workforce?* It found that the sustainable remote health workforce described in the opening passage of this article was not idealistic, nor was it unrealistic. It was an insightful narrative from a health professional with experience and expertise in remote health, someone who knows the landscape. Furthermore, it was indicative of the way in which current health professionals described a sustainable remote health workforce. The solutions-focused approach of this thesis revealed possibilities for policies that could have a positive influence on the sustainability of remote health workforces. The findings not only address the research question this chapter

sought to answer, they reinforced the importance of ensuring that health professionals with current remote work experience and expertise are contributing to the planning and strategy development for the achievement of sustainable future remote workforces. In the modern 21st century it should be achievable provided there are appropriate infrastructure, financial and human resources. Remote regions are geographically isolated; however, they are no longer as disconnected as they have been in the past. As human and technological advances continue, the remote workforce should reap the benefits through improved connectivity and innovation. The gap between the city and the bush is closing in many ways, it is imperative that one of these improvements is access to appropriate health services.

This chapter also sought to explore how a sustainable remote health workforce could be achieved. In their descriptions of a sustainable remote health workforce many participants described management practices that could improve sustainability. Management scholars contribute to the research in this area through the application of management theories in the examination of workforce challenges in remote health. Management theories which focus on people and workforce management provide complementary approaches to examining the sustainability of future workforces. The remote health workforce is no exception and can benefit from alternative, yet complementary evidence-based approaches. Further research about the influence of management practices on attraction, retention and voluntary turnover can provide a better understanding about the influence of managers on remote workforce challenges, including sustainability.

In conclusion, the participants suggest that a sustainable remote health workforce is about an appropriate mix of health professionals with suitable personal characteristics and professional attributes to meet the remote populations' needs. Beyond person-fit, a sustainable remote health workforce requires an appropriate model of service delivery that provides continuity of health care through improved retention of competent health professionals. Figure 5.1 highlights three areas of significance – people, practice and place. These themes emerged from empirical evidence from current remote health professionals, therefore, health service providers considering these three themes when developing workforce strategies and planning for future workforces are facilitating the connection between the current and future workforces.

This chapter reports the findings from a thesis that enabled the voice of health professionals from multiple professions currently working in remote regions of tropical northern Australia to be heard. They provide insight from their lived experience and they suggest that a sustainable remote health workforce is achievable. They suggest that regardless of geographical location, infrastructure and resources available to health professionals; the level of engagement with the

local community, together with the organisation's systems, influence the effectiveness of management practices. Therefore, management practices influence the outcomes of HRM policy choices that provide for the achievement of sustainable remote health workforces. Hence, realising a sustainable remote health workforce requires management practices focused on aspects of people, practice and place.

5.7 Chapter summary

- Examination of the characteristics of a sustainable remote health workforce, as described by health professionals currently working in remote areas, revealed three extant themes - people, practice and place.

- A sustainable remote health workforce is about an appropriate mix of health professionals with suitable personal characteristics and professional attributes to meet the remote populations' needs.

- Irrespective of geographical location, it seems that infrastructure, resources, and community engagement together with the health provider's systems influence the effectiveness of management practices. Hence, management practices influence the outcomes of many of the policy choices that can improve retention.

- Current remote health professionals suggest that management practices could improve workforce sustainability.

- Members of the current remote health workforce, experienced remote health professionals who know the landscape, propose that future health workforce sustainability is achievable with effective management practices focused on people, practice and place.

Chapter Six: HRM Policy choices, management practices and employment experiences

6.0 Chapter overview

6.1 Declaration: Previously published material

6.2 Introduction

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6.0 Chapter overview

This chapter contains the findings from the qualitative data analysis. The first section of the chapter seeks to identify HRM policy choices and management practices that could improve health workforce sustainability through the employment experiences of health professionals working in remote regions of northern Australia. Four key areas of management practice linked to HRM policy choices were identified: recruitment; remuneration; resourcing; and, relationships. This section concludes that the implementation of HRM policies in remote regions influences workforce sustainability as each manager applies their own policy interpretation into their management practices.

The second section examined the influence of the employee-manager relationship on retention. The findings presented in this section were from preliminary data analysis, and are consistent with conclusions drawn in the final analysis presented in section one. That is, both the preliminary findings (section two) and the final findings (section one) suggest that positive employee-manager relationships and supportive work environments can improve workforce retention. Together, they seek to address the research question (RQ3): *How do HRM policy choices and management practices influence health workforce sustainability for health professionals working in remote regions of northern Australia?*

6.1 Declaration: Previously published material

Portions of this chapter have been published or are currently under review. The first section contains content from the paper entitled, '*HRM Policy choices, management practices and health workforce sustainability: Remote Australian perspectives*' which is currently under review with the *Asia Pacific Journal of Human Resources*. The second contains content from the paper '*Managers are the key to workforce stability: an HRM approach towards improving retention of health professionals in remote northern Australia*' which was presented and published in the conference proceedings of the 2014 Australia and New Zealand Academy of Management (ANZAM) conference.

6.2 Introduction

> *If you have a turnover problem, look first to your managers.*
>
> (Buckingham & Coffman, 1999, p.27)

The challenges for health professionals working in remote regions are widely recognised and so too are the consequences of poor management practices (Birks et al., 2010; Farr-Wharton, Shacklock & Brunetto, 2010; Lenthall et al., 2009). Lenthall et al. (2009) reported four themes from their literature review examining stress and remote nursing: the remote context, workload,

poor management practices and violence. Of relevance for this thesis, management practices were identified as a significant determinant in leaving, and poor human resource management practices and inadequate managment systems were linked to burnout and turnover (Lenthall et al., 2009, p.210). Brunetto et al. (2016b) also reported that turnover intentions were associated with poor management practices finding that the employee-employer relationship was represented by the activities carried out by managers. Poor management practices included inadequate systems for orientation of new staff, poor communication, inadequate preparation of operational managers, inability to access leave and lack of replacement nurses to cover leave (Farr-Wharton et al., 2010; Lenthall et al., 2009). In addition, the literature review in chapter two identified four themes that encompassed the challenges of working in remote regions as reported by health professionals: personal, professional, organisational and contextual (Onnis & Pryce, 2016). Many of the poor management practices descibed by Lenthall and colleagues were contained in the 'organisational' theme as well some additional ones, such as unrealistic expectations, non-localised decision-making and role ambiguity.

These studies report on the impact of poor management practices; however, few focus on how increased management support could improve retention. The role of managers is often viewed as a career progression within a specific field and subsequently clinicians occupy managerial roles without the skills and support needed to succeed in remote settings. This chapter used qualitative research methods to examine employment experiences, identifying management practices that influence sustainability of the health workforce.

6.3 HRM Policy choices, management practices and health workforce sustainability: Remote Australian perspectives.

> *[W]e have to treat the same things the same but different things differently and I don't think that we do that very well. I think that we do a bit of a cookie cutter approach to remote health workforce and remote health service delivery. And I think for us to have a sustainable health workforce across remote Australia, then I think we need to invest a lot more heavily in management and leadership* (M18).

In remote regions good management practices are essential as managers support workforces already under pressure from the geographical challenges of providing healthcare to vulnerable remote populations (Lenthall et al., 2011). The development of service delivery models for remote regions provides some flexibility; however, workforce challenges continue with high turnover reported in some regions (Garnett et al., 2009; Hunter et al., 2013). High turnover has been discussed previously in this thesis; however, it remains pertinent to emphasise the impact of high turnover on workforce sustainability. High turnover requires increased effort in

attraction and recruitment to remote regions and impacts the continuity of patient care. However, there are health service providers and remote communities that report stability which they attribute to effective and supportive management practices (Hegney et al., 2002c; Hunter et al., 2013; Onnis & Dyer, in press). Hence, improving management practices to minimise voluntary turnover could contribute to remote health workforce sustainability.

There is a growing body of literature suggesting that effective management practices are influenced by both contextual and situational factors (Bartram, 2011). For managers, these geographical challenges are compounded by workforce issues, including poor resourcing, workforce shortages, professional isolation and limited access to professional development (Lenthall et al., 2009; Onnis & Pryce, 2016; Wakerman & Humphreys, 2012). Furthermore, reduced access to management education and management support networks limit the opportunities for managers to develop the skills necessary to be effective in remote regions. Birks et al. (2010, p.28) found that for rural and remote service delivery models to be effective, they need 'good managers with good management skills'. Likewise, poor management practices are frequently offered as reasons for the low retention rates of remote health professionals (Lenthall et al., 2009; Onnis, 2014).

HR constructs

A review of the management literature sought to examine the previous research in this area to identify HR constructs that influence the achievement of workforce sustainability. Chapter two contains a detailed description of the methods, analysis techniques and findings from this literature review which identified thirteen HR constructs: autonomy; embeddedness; job security; justice; Leader Member Exchange (LMX); mastery; occupational commitment; Organisational Citizenship Behaviour (OCB); organisational commitment; Perceived Organisational Support (POS); person fit; relatedness; and work conditions. While analysis of the literature identified emergent HR constructs, it did not provide clarity about their antecedents, associations or relationships. However, analysis of the literature did emphasise the interrelatedness of the constructs, and the significance of context.

Harvard Analytical Framework for HRM

The HRM approach embraced by this thesis used the Harvard Analytical Framework for HRM (Beer et al., 1984) to guide interpretation of the findings. Chapter two contained information about how the Harvard Analytical Framework for HRM was selected. The literature review suggested that this 'soft' or 'high commitment' HRM approach is appropriate for the context of this thesis where HRM policy choices are characterised by management practices undertaken to achieve the desired HR outcomes of commitment, competence, congruence and cost

effectiveness (Safdar, 2012; Thompson, 2011). The HRM policy choices are: HR Flow, Employee Influence, Reward Systems and Work Systems (Beer et al., 1984).

The Harvard Analytical Framework for HRM is examined in detail in chapter two. In brief, *HR flow* describes the processes involved in the movement of employees within or through the organisation. *Employee Influence* includes opportunities for employee participation in decision-making. These opportunities create interpersonal relationships and social interactions inherent in management practices that accelerate feelings of inclusion, social cohesion and organisational embeddedness thus improving organisational commitment (Wright & Kehoe, 2008). *Reward systems* describe the extrinsic and intrinsic rewards that employees receive for their work effort. *Work systems* describe the way work is conducted and contribute to perceptions of the level of management control and organisational culture. Inconsistent management practices can be a source of variation within a work system that creates dissatisfaction, particularly perceived injustices. These HRM policy choices lead to HR outcomes that benefit organisational operations improving retention and job satisfaction, so management practices that effectively implement HRM policy choices are desired.

The aim of this section of this chapter was to identify HRM policy choices and management practices that could improve health workforce sustainability through the employment experiences of health professionals currently working in remote northern Australia. The managers and health professionals who participated in this research provided their perspective through their experiences of working in remote Australia. Their experiences, their motivations, and their worldviews were diverse; yet their stories were similar.

6.3.1 Methods

This thesis sought to understand the meaning that the participants placed on their employment experience; therefore, qualitative research methods were used. They enabled a greater depth of understanding on the topic through narrative accounts of working in remote regions. This qualitative research study used a purposive sampling method to recruit participants who were either: 1) health professionals who were working in remote regions, 2) managers of health professionals working in remote regions, or 3) HR managers in organisations who employed health professionals working in remote regions of northern Australia. This method ensured that the sample contained participants that were health service managers (M), HR managers (HR) and health professionals (HP) with longevity (more than five years) working in remote regions. Twenty-four semi-structured interviews of approximately one hour were conducted in-person or

via telephone depending on the participant's location. Further information about the qualitative research methods is contained in chapter three.

This section reports the findings from a thematic analysis of the transcripts conducted using NVIVO10. The emergent HR constructs from the literature review formed the first level coding. Construct validity was established through the development of a data dictionary (Appendix G) which included definitions for each HR construct which improved consistency in coding (Creswell, 2009, p.228). In addition, transcripts were reviewed by two additional researchers for coding consistency. The Harvard Analytical Framework for HRM (Beer et al., 1984) provided a secondary level of coding configuration, with the HRM policy choices (HR Flow, Employee Influence, Reward Systems and Work Systems) guiding data analyses and adding depth to the interpretation of the findings.

6.3.2 Results

Participants

Overall, the 24 interview participants comprised 16 manager perspectives and 15 remote health professional perspectives. The overlap was a result of six participants who held management positions with clinical responsibilities at the time of interview and one participant who was in a clinical educator role at the time of interview, who had, until recently, held a clinician-management role in a remote region for more than ten years (Appendix K). Participants worked for government health departments, non-profit organisations, Aboriginal Community Controlled Health Organisations and included: CEOs, clinicians, nurses, a dentist, Directors of Nursing (DON), executive directors, general practitioners (GP), HR managers, nurse educators, a nurse manager, a social worker, a physiotherapist and a nurse practitioner. More information about the participants is presented in Table 6.1. Most participants had worked in more than one remote region.

Table 6.1: Characteristics of interview participants (n=24)

Gender		
	Male	25%
	Female	75%
Current Role Coverage		
	Australia	8%
	Queensland	63%
	Northern Territory	17%
	Western Australia	12%
Geographical Work location		
	Metropolitan City	8%
	Regional Centre	38%
	Remote Town	25%
	Very Remote Community	29%
Profession		
	HR	21%
	Nursing	50%
	Medicine	12%
	Allied Heath	17%
Manager		
	Health Professional	69%
	Human Resources	31%

Key management practices

The data analysis identified four key management practice areas: recruitment, remuneration, relationships and resourcing. These key management practices are consistent with the HRM policy choices identified by Beer et al. (1984):

- Recruitment (HR Flow)
- Remuneration (Reward Systems)
- Relationships (Employee Influence)
- Resourcing (Work Systems)

An examination of these key management practice areas and their impact on workforce sustainability considered how these practices are experienced by health professionals working in remote regions of northern Australia. The analysis revealed that health professionals are attracted to working in remote regions for a variety of reasons. They all believed that a sustainable remote health workforce was achievable. In addition, regardless of whether they were intrinsically or extrinsically motivated, the decision to remain was made based on their experiences in the remote region. Their experiences were influenced by a range of factors including the geographical location, work conditions and management practices implemented at the local level. Commonly reported management practices that influenced turnover, included: the employee-manager relationship; access to professional development; recruitment practices; remuneration; and professional support. The analysis suggests that it is the translation and

implementation of HRM policies in remote workplaces that is significant as each individual manager applies their own interpretation of the HRM policies into their practice.

Employment experiences

The Harvard Analytical Framework for HRM (Beer et al., 1984) guided data analysis and provided a good framework to examine the employment experiences described by participants. These employment experiences provide empirical evidence about the influence of key management practices for health professionals in remote regions of northern Australia (Table 6.2).

Recruitment (HR Flow)

The employment experiences described by remote health professionals were:

- Turnover is high in many remote regions but there is some stability
- Job security is influenced by external factors and personal circumstances
- Managers are prematurely promoted
- Managers are not provided with adequate professional development
- Recruiting for person-fit improves retention
- Realistic expectations improve retention
- Organisational-identity improves attraction and retention
- Turnover promotes occupational commitment over organisational commitment

High turnover was raised as a challenge by all participants; however, some managers explained that there are areas of stability, suggesting that turnover can be attributed to management practices, person-fit and realistic recruitment practices (Table 6.2). Participants were aware of the recruitment challenges that continued high turnover created, with several managers suggesting that realistic expectations are needed, proposing that role descriptions contribute to the difference between expectations and experiences. In addition, the mobility of the health workforce and shortened funding cycles for non-profit organisations created further recruitment challenges, particularly in terms of perceptions of job security. In contrast, some health professionals were not seeking job security and viewed working in a remote region as an adventure or an opportunity to gain experience to fast-track their career (e.g. ‘there's much more opportunities for the younger staff or to get abilities on a career pathway’ (IP22) (see Table 6.2 for further examples).

Table 6.2: Management practices, HRM concepts and the employment experiences of remote health professionals

Management practices	HR concepts	Employment Experience	Description
Recruitment (HR Flow)	All	Turnover is high in many remote regions but there is some stability	– in the first six months ... there were 26 workers came and went ... two weeks, three weeks, gone (HP16) – in the three years that I was the doctor I worked with 75 nurses, at a four nurse post (HP4) – turnover in various parts of the organisation is quite significant but in other parts of the organisation it is not (HR10) – I took the turnover rate from 200% a year to basically we had one staff leave in the four and a half years that I was there (M18)
	Job security POS	Job security is influenced by external factors and personal circumstances	– with the general economy levelling out a bit we've noticed a marked decrease in resignations from skilled workers and we've noticed a big increase in applications for skilled jobs (HR2) – every contract we issue says you have a contract until we have funding, whether that's until six months, or whether its until six years we can't tell you (HR2) – you are not allowed to not be on a contract, which I didn't realise, I thought I could just keep going from fortnight to fortnight (HP7)
	Mastery LMX	Managers are prematurely promoted	– we promote clinicians as good clinicians into management positions and then we don't support them with any management education (HR10) – how they got to be there was not necessarily because of their managerial and leadership skills. They got to be there because they were very good at their technical skills (HR11) – you get promoted to a position incompetent ... their greatest strength is then their greatest weakness and they fall apart because they can't manage (HP16)
	Mastery Autonomy	Managers are not provided with adequate professional development	– a new manager training program is something that we keep on wanting to develop but we never get around to developing (HR10) – I went from finding my way and hoping that I wasn't making too many mistakes to having a pretty good idea of what I was doing (M1) – I would have probably spent time going to university and learning a little bit more about management ... So if I have been working in that metropolitan area I would have been looking for courses to attend (M12)

	Person-fit Embeddedness	Recruiting for person-fit improves retention	– the longer you do it the more you can pick somebody who is probably going to have a higher chance of being out there for a while and enjoying it (M18) – that's the ideal candidate however you take whatever you get (M22) – the job descriptions are very wordy ... the average nurse wouldn't have a clue when she has read them what she is meant to be doing (M15) – she was going to come out for 6-9 months to see how she liked it, and she lasted 10 days. I don't know what they think above, but you need to pick the right people (HP7)
	Work conditions	Realistic expectations improve retention	– we were 'gilding the lily' about what is was like coming up here but I think that we don't do that as much as we used to; we realised that that doesn't help with turnover (HR10) – how can we make it more real? We need to look at job descriptions (M15) – many arrive in these very remote places with expectations that are not valid really and they wonder what on earth they have struck when they come (M15). – they sent me an A4 folder of information about what to expect in a remote community (HP4)
	OCB	Organisational-identity improves attraction and retention	– from my childhood, you saw of the flying doctor service that silly soap opera ... couldn't believe that here was me ... working for the RFDS! (M16) – I think there's a sense of pride which you don't get from other organisations ... if you are in your work clothes, people just love you (M18) – having a sense of self worth, or self-esteem, that I work for RFDS (M16) – so they don't have any of the issues with recruitment because people fall over backwards to work for them (M18)
	Occupational commitment	Turnover promotes occupational commitment over organisational commitment	– having practiced rural and remote the difference is that you do have career aspirations, it's not all about what you are doing today it's about what you'd like to do (M1) – once again they've now got a new manager ... so these people ... in those communities have now just resigned and they've moved [to another employer in the same area] (M18) – the labour market pool is reduced because nobody wants to go [remote] (HP22) – they come to the handover in the morning sometimes with their orange shirt [ACCHO uniform] sometimes ... their blue shirts on [health department uniform] ... they're blue, blue, blue, orange, orange, orange (M16)

Remuneration (Reward System)	Embeddedness Relatedness	High levels of job satisfaction exist	– it's purely the job, it's the absolute job satisfaction ... I stayed on longer because the job satisfaction was just so high (HP24) – I left there exhausted but feeling like I had contributed something, if not very much, something (HP4) – for our workforce ... there is a real sense of engagement and working together for the good of community (M1)
	Person-fit Work conditions	Financial incentives improve attraction but not retention	– money and conditions will attract people, retention is around the work environment (M9) – money is a good way of getting people out here but it may not keep them here (HP7) – the people who are here just about the money ... they don't last long (HP21) – I had to move there so the money was just a bonus but would I turnaround and move there just for that money? No (M22)
	Justice Work conditions	Remuneration differences exist between disciplines	– because she is a nurse ... she had five weeks leave. How is that fair in a team when there is no extra responsibility attached to that? (HP16) – the woman told me that she was doing the same job as the person beside her and she was getting $30,000 less (HR2) – things were inequitable but I don't think it ever caused real conflict in any of the workplaces that I was in (M9) – because we are a non-government organisation we can't subsidise housing ... so it's not equitable on what organisations can offer (M5)
Relationships (Employee Influence)	Relatedness Embeddedness	Personal isolation influences retention	– I'm not sure how people do it, leaving their family behind and going out by themselves but I have been very fortunate to have my family with me (M1) – the only staff that stay are the staff that have bought and have family, or their partners work in the town (M22) – if I didn't have a partner here now I would be less likely to stay as long as I have (HP21) – they're leaving their friends and family behind so we become their extended family (M5)
	Person-fit Embeddedness Work conditions	Embeddedness influences retention	– often its length of time in community that gives them the access to the community to be able to do the coordination and management (M18) – this particular group ... managed to link up with the police and with the teachers, so it's expanding their social world outside of their work world (M15) – it's not until people have been there for a long time that you actually get any trust (M1) – we've got a couple of other people who have got links into the local community although that's really hard to do (M15)

	POS Relatedness	Professional support improves retention	– I joined my association ... it's the only contact I have with other physios (HP23) – we are a quite tight team because there are *not that many of us* but then there is also *not that many of us* so I do feel more professionally isolated (HP21) – if you are a manager we should have mentors ... you can't bounce it off your staff (M18) – there's a little network and good collegial working relationships with some of the specialists and generalist nurses (HP24)
	Autonomy	Autonomy is both a benefit and a necessity	– the big difference was more autonomy and being responsible for my own practice (M1) – autonomy really is the biggest thing for me. I've just got so much autonomy (HP24) – there are benefits you know, autonomy (M8) – autonomous practice which is what you need to be able to do when you are in a remote area (M3)
	LMX	The Leader Member Exchange relationship influences organisational commitment	– if the team feel valued and appreciated ... it makes people feel that what they are doing is valuable (M1) – we had huge turnover, it was like a spinning door. That's stopped, we've got people lined up to work there now ... it was quite autocratic but it was supportive (M18) – it just helps to have someone who knows where the communities are what the troubles are, travelling between, how people get there, roads cut off, things like that, someone that understands the little things that make your day a lot harder (HP19)
	LMX	Situational factors influence Leader Member Exchange	– you've got all of this pressure to be supporting this mob who are all coming in and out (M18) – we have quite a structured orientation program but it is dependent upon the line manager (HR10) – they didn't realise the challenge ... they did not know from their expectations of us they had no idea. That's it they had no idea (HP4)
	POS	Perceived Organisational Support may improve retention	– when you've got an executive and health service that supports you that much then you feel, even more it makes you want to stay (HP24) – it depends on who is above you and how willing they are to change and do something different (MP1) – I actually think we are well supported (HP20)
Resourcing (Work Systems)	Work conditions	Work conditions provide further challenges for	– internet speeds are slow, too slow, or non-existent (M22) – there's only five nurses who can do oncall so they are pretty much oncall all the time ... they get snappy because they are sleep deprived and then they leave (HP7)

		managers	– (nurse) the quality of the accommodation was so poor ... in one room flats, like bedsits out the back, in the compound of the clinic, in the backyard behind the clinic (HP4) – (doctor) we've got a great house ... three bedroom, air con in every bedroom, we've got a water view ... accommodation was not an issue (HP7) – a remote area where the climate is hot and humid most of the time exhausts you (M17)
	LMX Mastery	Policies should be localised	– sometimes people grab policy from the city and put it straight into the rural context and that doesn't apply also (M22) – ensuring that our policies reflect that flexibility at a local level ... building in things that support people that are doing the right thing at the right (M13) – needs to be contextualised to the area ... they need to review and apply it to the local area ... [they] come in and rubbish the team because in the city it's done elsewhere without having that local context of why it's done locally that way (M22)
	Organisational commitment	Mix of labour influences organisational commitment	– creates power struggles within a small unit where if you have more Agency than permanent staff ... they can be soul destroying for the culture of a unit in that they don't want to give to the organisation, they don't want to follow processes, local processes or policies (HP22) – in nursing the great stopgap measure is agency ... they are prepared to bed down for 3 to 6 months at a time to provide the services and then go (M8) – people don't take ownership if they are not part of the unit (HP22)
	POS Work conditions	Attention to individual wellbeing influences sustainability	– there are a lot more safety aspects that we need to consider up here. We've got people driving, by themselves ... They could be stuck somewhere out by themselves in the middle of nowhere (M5) – working during the day and doing oncall at night that takes a toll on people (M17) – there's a lot of bullying, just subtle bullying that happens within remote workplaces (M5) – the nurses have been behind barbed wire every night (M13) – having access to leave and being able to use it are two completely different things (M1)
	Work conditions LMX	Balancing management and clinical responsibilities	– clinicians being managers as well, it is difficult ... their patients and their clinical workload is the priority. The administrative stuff can wait (M9) – I've had a few meetings with them where they've honed in on something ridiculous which is their bad management practice. I got pathologised for it (HP16) – I've tried to maintain my clinical skills because I think that is my point of difference as a manager (M18)

Only a few participants discussed the opportunity to recruit from local populations highlighting the social and economic benefits associated with employing a local workforce. In this thesis, participants explained that local residents know the region and are aware of work conditions, housing issues, resourcing inadequacies and the environment so there are benefits in employing locally. Furthermore, participants suggested that the connection between self-identity and organisational-identity improves an organisation's ability to recruit health professionals, with two managers citing RFDS as an example. Participants indicated that high turnover creates an environment where health professionals committed to their profession do not need to remain committed to their employer, particularly when there are ongoing vacancies and duplication of services in remote regions.

There were a variety of approaches to orientation described by participants. All participants described the challenges associated with accessing professional development when working in remote regions and suggested that any professional development that is available is more likely to be for clinical skill development or conferences. Managers reported that they sought their own professional development solutions in terms of management training, once they were in a management position. Most health professionals described employment experiences which they believed resulted from management incompetence.

Remuneration (Reward Systems)

The experiences described by remote health professionals were:

- High levels of job satisfaction exist
- Financial incentives improve attraction but not retention
- Remuneration differences exist between professions

Most participants reported that high remuneration attracts people to remote regions but did not improve retention. Some had concerns about the inequity of remuneration and reported large differences in remuneration between professions, especially when it was for the same role; however, one manager did not find this problematic. It is worth noting that this manager was a member of the profession that others felt received better remuneration, emphasising the significance of 'perspective' in employment experiences. Many health professionals reported job satisfaction; however, they report satisfaction with specific aspects of their work not the entire employment experience. That is, they report satisfaction with aspects other than remuneration suggesting satisfaction is achieved through intrinsic motivators as well as financial rewards.

Perceived organisational inequities were considered a hindrance to recruitment and retention of remote health professionals. Managers explained that the remuneration, incentives and working conditions that smaller health services and non-profit organisations can offer were often lower than those offered by government health services that had greater access to housing, facilities and alternative funding. While many of these inequities are evident in the entire health system; in remote regions they appear to be more pronounced as health professionals live as well as work in these inequitable conditions.

Relationships (Employee Influence)

The experiences described by remote health professionals were:

- Personal isolation influences retention
- Embeddedness influences retention
- Professional support improves retention
- Autonomy is both a benefit and a necessity
- The Leader Member Exchange relationship influences organisational commitment
- Situational factors influence Leader Member Exchange
- Perceived Organisational Support may improve retention

Participants described feelings of personal and professional isolation experienced when working and living in remote regions separated from family and friends. A few participants explained that in the absence of their family, colleagues often reduced this sense of personal isolation and that community connections provided social support networks. Some managers explained that in remote regions personal characteristics and talents, well beyond their role descriptions are used to create supportive work environments, citing an example about a nurse with previous work experience as a chef which was welcomed on an isolated island. Participants reported that professional networks and mentoring relationships help to reduce the sense of isolation. Therefore, social support and embeddedness are considered key components for improving retention.

When participants were asked to describe how they thought their manager would describe working in remote regions, differences in their employee-manager relationships emerged. Some described managers who lacked understanding of remote work environments resulting in unsupportive relationships; others described managers and management styles that were effective in remote regions highlighting the significance of the employee-manager relationship. According to participants the level of employer support varied, both within and between

organisations. It appears that management practices that reinforce shared understanding of the remote working environment are valued.

Resourcing (Work Systems)

The experiences described by remote health professionals were:

- Work conditions provide further challenges for managers
- Policies should be localised
- Mix of labour influences organisational commitment
- Attention to individual wellbeing influences sustainability
- Management and clinical responsibilities conflict

Participants described poor resourcing including inadequate technology, outdated equipment and excessive work hours; however, the most frequently discussed concern was staff accommodation. Most participants described accommodation as being expensive, poor quality, inequitably distributed and often did not meet expectations. In contrast, other participants had satisfactory accommodation, which was often free or subsidised by their employer.

Participants discussed safety concerns, particularly fatigue associated with excessive oncall work at night, workplace bullying, burnout, violence and general safety concerns. Leave was essential for remote health professionals so that they can have time away from their remote workplace. Some participants reported that there was insufficient leave whereas for others it was plentiful but difficult to access.

Managers with clinical responsibilities must manage competing responsibilities. Participants reported that clinician-managers must prioritise clinical responsibilities above management responsibilities. Some participants also described experiences where they believed that managers relied on their clinical expertise as managers, often diagnosing and treating employees. Participants suggested that clinician-managers may have difficulty switching between their clinical and management role or view the management role as an extension of their clinical role.

Finally, most participants accepted the geography as part of the context. Yet, they described frustration with work systems and management practices emphasising that in remote regions policies need to suit the local work environment.

6.3.3 Discussion

Organisations experiencing high voluntary turnover must ensure that their HRM policy choices are aligned, as both internal and external factors influence workforce sustainability. Migration patterns that result in movement to urban areas are common and for remote regions this mobility requires workforce planning and management (Kabene et al., 2006; McGrail & Humphreys, 2015). At the same time, the remote workforce includes many itinerant workers who choose a travelling lifestyle, preferring adventure, unique experiences or opportunities not available in the more competitive urban labour market (Nadkarni & Stening, 1989). Furthermore, increased temporary employment, and the dependence on agency staff in remote regions further complicate commitment and workplace relationships (Hudson & Inkson, 2006). The changing structure of contemporary workforces and the mobility of individual employees create an opportunity for managers to improve retention through recruitment, relationships, remuneration and resources. In a competitive labour market, these management practices may be the competitive edge that organisations need to improve retention, particularly in remote regions where demand exceeds supply.

Social exchange theory explains the employment relationship using perceived organisational support (POS) to describe the relationship between the employee and the organisation, and leader-member exchange (LMX) to describe the quality of the relationship between the employee and their manager (Farr-Wharton et al., 2010; Xerri, 2013). Health professionals working and living in remote regions often feel professionally isolated; hence, a supportive employee-manager relationship becomes vital for workforce sustainability, especially for those geographically separated from their regular support networks (Buykx et al., 2010; Greenwood & Cheers, 2002). It is proposed that when the organisation treats the employee well the employee reciprocates by working to benefit the organisation. In remote regions, the benefits of LMX and POS are important because employees who consider their employer supportive are more likely to reciprocate which often translates into improved retention (Gould-Williams & Davies, 2005; Wright & Kehow, 2008; Xerri, 2013). The influence of the employee-manager relationship on workforce sustainability is examined further in the second section of this chapter.

Organisational citizenship behaviour (OCB) and organisational commitment are less likely to be evident in remote workforces, particularly with temporary employees having non-existent ties to the employer, reducing their motivation to remain as the benefits from continued employment are absent (Coyle-Shapiro & Kessler, 2000; Highhouse et al., 2007). In addition, duplication of health services means that often health professionals can remain working in the same community, with the same clients; and be employed by a different organisation. The rise

in the protean career, where personal success comes from self-directed career management, reinforces the propensity for occupational over organisational commitment (Hudson & Inkson, 2006). Where health professionals are demonstrating commitment to their profession, not their employer, there is an opportunity for managers to influence retention through creating a more satisfying place to work.

Job satisfaction was widely reported; however, participants were not satisfied with all aspects of their work. Reward systems do not accommodate for individual differences, thus it is unwise 'to assume that all rewards have the same influence on the behaviours and attitudes of every single employee' (De Gieter & Hofmans, 2015, p.214). There was a widely held view among participants, that financial rewards improve attraction but not retention which is consistent with Wright and Kehoe's (2008, p.15) proposal that remuneration only influences retention when the 'pay is at a level that would require employees to take a pay cut if they left'. In addition, structural inequalities in remuneration were reported with differences in salaries and incentives between professions creating perceptions of injustice (Hegney et al., 2002c; Santhanam et al., 2006). This may be explained by Herzberg's motivation-hygiene theory, which suggests that where there is high job satisfaction, turnover is observed where basic needs are not being satisfied (Campbell et al., 2012; Onnis & Pryce, 2016). This study suggests that for remote health professionals, retention is contingent on both intrinsic and extrinsic rewards. Therefore, simply offering financial incentives does not mean employees will feel valued and reciprocate with commitment behaviours (Arnolds & Christo, 2002; Ko & Hur, 2014). Instead, managers should focus on improving employment relationships and ensuring that rewards are more closely aligned with individual employee motivations (Ko & Hur, 2014).

When considering the employee-manager relationship in remote regions the manager is responsible for managing physical resources and meeting the community's healthcare needs, through the available workforce. In some remote regions, high turnover together with the range of health service providers often means that the DON, the most senior government employed nurse (the manager) in the remote healthcare centre, may need to manage the provision of healthcare through employees from their organisation as well as non-profit organisations, ACCHOs, and emergency services (e.g. RFDS). Health professionals that they did not employ, that they may not have met before that day, where there are no formal reporting relationships and the health professional's clinical competence is unknown to the manager. For these managers, managing health professionals in remote regions is challenging and they are often ill-prepared for these challenges. Taylor et al. (2010) propose that in a hierarchy, people rise to their level of incompetence. This phenomenon often called the 'Peter Principle' describes the circumstances where someone is promoted for being good at their job, to a position where they

are unable to perform satisfactorily (Fairburn & Malcomson, 2001; Pluchino et al., 2010). This could be due to the differences in the competencies required to undertake management roles and those required in clinical roles. Remote-based managers have limited access to management development programs; therefore, management practices that support professional development, career planning and mentoring, would be beneficial (Birks et al., 2010; Hegney et al., 2002c; Thompson, 2011).

Regardless of whether they consider themselves clinicians with management responsibilities, or managers with clinical responsibilities, the management philosophy that emphasises entrepreneurial practices is at odds with the values of health professionals in the caring profession (Bolton, 2003). Nowhere is this more evident that in remote community health services. Until clinician-managers see a need for management training, their management approach will continue to reflect the nature of healthcare where the problem is diagnosed and an appropriate treatment implemented (Allan & Ball, 2008). Further investigation is recommended into the dynamics of clinician-manager relationship in remote regions and the influence of professional development tailored to address the challenges of managing remote workforces.

6.3.4 Summary

Perceived management incompetence and inconsistent implementation of HRM policies, including the failure to localise policies, not only influenced the employment experience of remote health professionals, it contributes to increased voluntary turnover. Competent managers are vital in improving workforce sustainability providing evidence of the importance of the translation of HRM policies into practices. In addition, areas of stability suggest that where localised management practices improve equity, where employee-manager relationships are fostered, where there is perceived organisational support and adequate access to resources and professional development; a sustainable remote health workforce is achievable.

In remote regions, good management practices include localisation of HRM policies. Robertson (2014, p.78) commenting on the lack of specific management training for her role as Station Manager in Antarctica said 'I thought that surely such a harsh and uncompromising environment would create unique management scenarios that aren't found in the average workplace'. The findings from this study, are congruent with Robertson's (2014, p.78) conclusion, 'Towards the end of my time in Antarctica I would reflect on the leadership and management challenges and agree. They are no different in principle, but they are vastly different in application!' Thus, emphasising that the translation of HRM policies, through management practices is crucial in remote regions.

6.4 Managers are the key to workforce sustainability

> *[P]eople leave managers, not companies. So much money has been thrown at the challenge of keeping good people – in the form of better pay, better perks, and better training – when in the end, turnover is mostly a manager issue* (Buckingham & Coffman, 1999, p.27).

The previous section provided evidence of the key role that managers play in achieving workforce sustainability. Working in remote Australia is challenging (Bent, 1999; Greenwood & Cheers, 2002); however, for managers there are additional challenges. Managers experience an additional burden undertaking the duties of planning, supporting and motivating others in a complex environment often with limited management experience or support (Greenwood & Cheers, 2002; van der Heijden et al., 2009; Lenthall et al., 2009). In isolated areas where health professionals live and work in close proximity, where work and home life overlap and where social networks are essential; the impact of effective management practices is considerable. If employees make decisions to remain with their employer based on their experience in the current practice setting it follows that the most influential person in that setting, their manager, may have a substantial impact on turnover (Cutchin, 1997; Fisher & Fraser, 2010).

Social exchange theory which was explained earlier in this thesis provided a foundation to explore the complexity of the employee-manager relationship and affords a mechanism for understanding how these relationships influence the sustainability of remote health workforces. In remote northern Australia many health professionals live and work in remote communities or small towns where work and social relationships can be complicated by the interrelatedness of roles and responsibilities. The complexity of these roles exposes the difficulties health professionals in remote regions experience as their personal and professional roles intersect (Birks et al., 2010; Greenwood & Cheers, 2002). Remote-based workforces are often supported through workforce models such as fly-in/fly-out (FIFO), drive-in/drive-out (DIDO) and outreach services. These models add another dynamic to the work environment and can mediate tensions within the remote workplace by providing clinical services where personal relationships create conflict for the remote-based workforce (Birks et al., 2010). Psychological contracts, organisational commitment and social identity (Gould-Williams & Davies, 2005) may be complicated by these integrated working environments and may further impact workplace relationships. Managers are therefore considered to be the 'pillar that supports the social exchange framework' (Xerri, 2013, p.106). Examining the employee-manager relationship for remote health professionals is a sensible next step in understanding turnover in remote regions.

6.4.1 Methods

This section used qualitative data from two sources to conduct preliminary analysis and interpretation. The methods were consistent with those described in chapter three; however, a smaller sample was analysed for this section.

Interviews (n=19)

Semi-structured interviews of approximately one hour were conducted with 19 health professionals (IHP), human resources managers (IHR) and managers (IM). This section focuses on three areas of interview data: 1) the transition from clinician to manager; 2) the challenges of managing in remote regions; and 3) how they described remote staff appointments in terms of turnover and retention.

Questionnaire (n=85)

This section also contains preliminary data from the first distribution of the online questionnaire (Appendix E). Of the 424 health professionals (QHP) invited to participate, 111 responded achieving a 26% response rate. Incomplete questionnaires were removed leaving 85 questionnaires for analysis. The data analysis focuses on the response to the question, *What are the greatest challenges of working in a remote region?* The Harvard Analytical Framework for HRM (Beer et al. 1984) was used to develop categories for the thematic analysis of the transcripts using NVIVO10.

6.4.2 Results and Discussion

A summary of the characteristics of the participants is provided in Table 6.3. The majority of both interview and questionnaire participants were female. Most of the interview and questionnaire participants lived in a regional centre; however, there were a mix of participants, across both data sources, that lived in remote towns and very remote communities, confirming the presence of remote-based and FIFO/DIDO workforce models. The main demographic difference was that approximately half of the interview participants were located in Queensland, whereas almost three quarters of the questionnaire participants were located in Western Australia.

Table 6.3: Demographics for Interview and Questionnaire participants

Interviews (n=19)		
Gender	Male	26%
	Female	74%
Region	Queensland	58%
	Western Australia	16%
	Northern Territory	26%
Location	Very Remote	26%
	Remote Town	11%
	Regional Centre	63%
Occupation	Allied Health	11%
	Doctor	21%
	Nurse	42%
	HR	26%
Management Status	Manager	79%
	Non-Manager	21%
Online Questionnaire (n=85)		
Gender	Male	16%
	Female	84%
Region	Queensland	29%
	Western Australia	71%
Location	Very Remote	26%
	Remote Town	17%
	Regional Centre	57%
Occupation	Allied Health	26%
	Doctor	8%
	IHW	4%
	Nurse	55%
	Other	7%
Management Status	Manager	42%
	Non-Manager	58%

An analysis of the data identified that the emergent themes were: transition to management; rewards and incentives; employee-manager relationship; clinician-manager role conflict; and recruitment. These themes shape the structure of the remainder of this section of this chapter.

Transition to management

The progression from clinician to manager is significant and was described by managers as being pivotal in their career. Now established managers in their respective areas, they all remembered their first management position with the majority recalling an absence of support. This was consistent with the one of the HR Manager's view that 'We promote clinicians as good clinicians into management positions and then we don't support them with any management education' (IHR10). One exception was a manager who had progressed through the government health department ranks from a registered nurse to management in the 1990s and recalled support within succession planning HRM policy that existed at that time. Others

did not receive this level of support with one saying, ‘as soon as you put on a managers hat there is an expectation that you just get on with it’ (IM18) and another frustrated by the lack of support saying ‘they knew me as a clinician, they all knew my background’ (IM9). Several explained that seeking organisational support was their greatest challenge when transitioning to management, ‘how do you know what you need because you don’t know, what you don’t know’ (IM18). Organisational support according to both managers and HR professionals was often lacking, with one participant saying ‘lack of supports, lack of voice ... lack of systems to increase safety, lack of systems to improve communication... lack of funding...’ (QHP7).

Most of these managers transitioned from clinicians in remote areas and suggested that the geographical barriers, both physical and financial, contributed to the diminished level of professional development and support. Several undertook management training, including post graduate qualifications to consolidate their skills after some time in the management role. Most thought that if they had been in a metropolitan area during the transition that they would have had increased access to professional development and support that would have improved their capacity to manage more effectively. Difficulties accessing professional development are common for remote health professionals (Bent, 1999; Birks et al., 2010) and this contributes to reduced management capabilities and competence, as one HR professional explained:

> *How they got to be there was not necessarily because of their managerial and leadership skills. They got to be there because they were very good at their technical skills ... and usually what happens is the wrong people go in to the manager's job ... so we don't choose the right people very well; and the next thing is so we don't groom the next lot of people well. So we are not training the next generation of potential managers* (IHR11).

Lenthall et al. (2009, p.210) note that ‘[i]nadequate preparation of operational managers’ and ‘inadequate recognition of health services management as a health discipline’ impedes retention. Hence, these findings suggest that organisations need to prepare the employees they are promoting and proactively identify, train and support potential managers (Taylor, Blake & Claudio, 2010).

Rewards and Incentives

> *There are always people who are going to be wanting to go out there and work in this really amazing complex unique environment, that's not the challenge. The recruitment isn't the challenge it’s the retention and the retention is about management* (IM18).

Managers emphasised that intrinsic motivation is important for retention, e.g. 'money and conditions is what will attract people, retention is around the work environment' (IM9). The managers explained that the motivation to work in remote areas could arise from an intrinsic altruistic drive or a more extrinsic financial stimulus. This supports the findings of other studies where extrinsic rewards were beneficial in attracting health professionals to remote areas; however, they had minimal impact on long term retention (Campbell et al., 2012). One participant further explained the challenge, saying that the their workforce included 'transient staff so [they were] often orientating staff' (QHP84). Managers accepted the importance of transient employees and those motivated by financial gains because they are the short-term workers that remote areas depend on. They complete the contract, collect the bonus and leave. Then the next one arrives and the pattern repeats. By comparison, they suggested that intrinsically motivated employees are more likely to stay longer. However, they fall into two categories: those that come to save the world and burn out quickly; and, those who find their place in the community and stay for a long time.

Managing the latter of these groups is crucial to the stability of a remote health workforce; however, organisational policies often constrained the managers' ability to do this effectively. One manager described a situation where policy to exit a poor-performer took so long they lost two good health professionals, saying 'I need to find a better way to recruit people so that we don't lose good staff' (IM9). There was a strong sense that some of the policies developed in the city can be too restrictive in remote areas and necessitates localised decision-making for implementation, with one explaining that the 'Decree from on high appears almost daily with what has been implemented in a city setting with the expectation that it will automatically work out here' (QHP21).

Employee-manager relationship

The employee-manager relationship underpins the extent to which high commitment HRM practices are implemented in the workplace (Gould-Williams, 2004). Social exchange theory proposes that high commitment HRM practices shape employee behaviours and attitudes developing psychological links between employees and the organisation (Gould-Williams & Davies, 2005). It is these links that consolidate the employee-manager relationship. In turn, these positive feelings toward their manager often influence turnover intention (Maertz et al., 2012). One participant suggested that 'as a manager, maintaining friendships vs collegial relationships is often very tough' (QHP49), while others commented on the need for more remote-based managers, saying that they were 'tired of having to follow directives from Metro/Regional based managers' (QHP19).

Trust is considered a critical factor in social exchanges and facilitates the development of social exchange relationships (Gould-Williams & Davies, 2005). '[S]tudies on employee satisfaction, engagement, commitment, and loyalty identify trust in immediate supervisors and senior management as a crucial element of the organization's culture' (Chalofsky, 2010, p.137). Other studies also showed that employees 'were more satisfied and committed to the organisation when their values were congruent with that of their supervisors' (Rosete, 2006, p.8) and that the quality of the employee-manager relationship impacts employee outcomes including job satisfaction, commitment and turnover intention (Xerri, 2013). Hence, it is reasonable to suggest that a trusting, supportive employee-manager relationship is essential for improving retention.

Employment relationships form where managers and employees are joined together by mutual dependence (Bartram, 2011). The HR professionals interviewed understood the challenges for managers, e.g. 'every day they work in such hard conditions so it's a challenge to get people who care about compliance and best practice in business to go and work in these roles' (IHR2). An emergent theme was that unless a manager has lived and worked in a remote region, they do not understand what it is like, implying that without this understanding they cannot effectively manage remote workers. This theme elicited the most emotion in the interviews with health professionals working in remote regions and was also evident in responses to the questionnaire where participants were asked about challenges of working in a remote region. Almost 10% of questionnaire respondents mentioned this discord with one participant saying that 'the city based staff have no understanding of conditions, resources and remote areas' (QHP21).

Participants highlighted frustrations with unrealistic expectations that extended from a lack of awareness about the work environment. One health professional's frustration was evident when asked for five words that their manager would use to describe working in a remote region, 'I just have to say they did not know, from their expectations of us they had no idea. That's four words; make it capitals THEY HAD NO IDEA!' (IHP4) and another noted that 'mangers [sic] back in large centres are often out of touch with their expectations' (QHP18). Others said 'is there a word that captures the feeling that my team leader does not understand my work?' (IHR2) and 'it was good to have someone who actually knew what it was like to work in a remote community' (IHP19). Several suggested training in distance management saying, 'just because they are able to manage a team face to face doesn't mean they have any capability of managing a team from a distance. My experience being out bush was that you only ever heard from a manager when they wanted to yell at you' (IM1). These comments reinforce the importance of the employee-manager relationship.

Clinician-manager role conflict

It was common for managers to have both clinical and management responsibilities. Several managers discussed their desire to maintain their clinical skills while in a management position. One senior manager said that they thought that it was 'their point of difference as a manager' (IM18) going on to say:

> *Otherwise why wouldn't you just put generic managers in these roles that actually have formal management qualifications? There would have to be a point of difference otherwise we're not the smartest workforce solution in regards to management'* (IM18).

As clinicians, managers focused on client needs and this focus may, at times, influence their decision-making capabilities as managers. The clinician-manager role conflict was discussed in more detail in the first section of this chapter.

Recruitment

Recruiting competent remote workforces includes recruiting competent, experienced managers suited to managing health professionals working in remote regions. One HR professional explained 'that managers were key; they were the critical thing and they were the deal breakers' (IHR11). The number of experienced managers who apply for management positions in remote areas is low according to one HR Manager who said 'I don't think we get too many people with management experience applying for management jobs ...We usually recruit inexperienced managers more often than not and try to develop them and we don't do very well in developing them' (IHR10). One participant explained that one of the challenges is the 'isolation from professional development opportunities' (QHP24) and another commented on support saying there was a, '[l]ack of support to access suitable professional development' (QHP27). If accessing professional development and support in remote areas is difficult; this is not ideal for an inexperienced manager.

Participants discussed the personal characteristics that they brought to the role of manager, such as their previous management skills and experience, remote experience and personal resilience. These characteristics were the foundation on which they built their management career and contributed to the success that they had with improving retention. Some managers gave examples about how they turned things around, e.g. 'we had 51 vacancies across remote and then we got down to having a waitlist, so there was one time when we had every position filled with a permanent appointment and then we had a few people on the waitlist' (IM18). Another said 'I took the turnover rate from 200% a year to basically we had one staff leave in the four

and a half years that I was there' (IM1). The findings indicated that managing in a manner that is congruent with the values and philosophy of employees, the community and the organisation, was crucial in achieving workforce sustainability.

6.4.3 Summary

The analysis and interpretation of the preliminary findings support an argument that managers are the key to reducing turnover in remote regions and this can be achieved through an effective employee-manager relationship. Managers need access to support that complements their current skills so that they can manage diverse, professional health workforces in remote regions. The HRM approach used for this thesis uncovered themes that were conducive to an examination using social exchange theory. These themes (transition to management; rewards and incentives; employee-manager relationship; clinician-manager role conflict; and recruitment), reinforced the notion that the employee-manager relationship is critical in remote regions and social exchange theory helped in understanding how they impact turnover. This thesis provided evidence that it is possible for managers to transform health facilities with high turnover into health facilities with a stable workforce through management practices such as localised policy implementation that support health professionals and organisations. The research showed that retention was improved by: consideration of management experience; improving support and access to professional development; and, building positive employee-manager relationships. These improvements are imperative if managers are to be competent in managing the diverse range of challenges encountered in remote regions.

The evidence from this thesis consistently shows that managers are the key to workforce sustainability, as such, they need support in improving their ability to manage health professionals; however, this needs to extend beyond the current management workforce. Attention should also be focused on supporting health professionals in remote regions who have the potential to be the next managers. These health professionals understand the remote context; they are making decisions from within the work environment, so retention through ongoing professional support is vital for organisations facing workforce shortages through high turnover. Buckingham and Coffman (1999) proclaimed that turnover is a management issue, thus managers are the key to maintaining workforce stability.

6.5 Conclusion

This chapter sought to address RQ3: *How do HRM policy choices and management practices influence health workforce sustainability for health professionals working in remote regions of northern Australia?* The findings suggest that remote managers often find themselves unsupported, poorly prepared, and professionally isolated; which can increase the challenges associated with workforce management. However, there are also external factors beyond the manager's control that influence voluntary turnover, including profession-specific financial incentives, the transient nature of remote workforces, global workforce shortages and unattractive geographical locations. The management practices that emerged through the qualitative data analysis aligned with the HRM policy choices from the Harvard Analytical Framework for HRM: recruitment (HR flow), relationships (Employee Influence), remuneration (Reward Systems) and resources (Work Systems).

This thesis found that managers are influencing workforce sustainability through both their relationships with employees and their management practices, in particular the way that HRM policies are implemented. Drawing on social exchange theory it is proposed that the employee-manager relationship is critical in achieving workforce sustainability as it is through this relationship that employees develop ties to the employer. The quality of the employee-manager relationship is central to employees adapting to the remote workplace and in developing the exchange relationship on which the future employment relationship is based. This exchange relationship also contributes to psychological contract fulfilment; hence, the employee-manager relationship extends beyond a social relationship and develops the foundation on which the employee measures the long-term suitability of the employment relationship. Furthermore, management practices contribute to achieving a suitable person-fit for remote health professionals, which extends beyond the recruitment process to orientation into the remote workplace and ongoing support to ensure that they establish themselves as a competent health professional in the remote region. Therefore, HRM policy choices influence workforce sustainability by ensuring that competent and suitable health professionals are recruited and that once appointed, remote health professionals have access to the support, development and resources that they need. According to Herzberg's motivation-hygiene theory this will minimise dissatisfaction allowing the benefits of job satisfaction to translate into improved retention. However, for HRM policies to be effective, they are dependent on management practices that ensure they are appropriately implemented so that the intended benefits can be realised.

Therefore, it appears that management practices influence how HRM policies are implemented and whether or not they are localised. That is, when they are implemented, the particular remote workplace and the current remote workforce must be considered for effective implementation in an effective manner. Ineffective implementation of HRM policies has repercussions for organisations. To achieve a sustainable remote health workforce, managers need to attract and appoint for good person-fit (recruitment), establish an employee-manager relationship conducive to experiencing high job satisfaction (relationships), ensure that employees are intrinsically and financially rewarded (remuneration) and that they have adequate access to professional development, adequate leave and a safe workplace (resources). Therefore, to answer the research question, management practices influence the employee-manager relationship and the localisation of HRM policies; and so, ultimately management practices influence how effectively the HRM policies can contribute to the achievement of a sustainable remote health workforce.

6.6 Chapter summary

- Managers are influencing workforce sustainability through both their relationships with employees and their management practices, in particular the way that HRM policies are implemented.

- Management practices and employment experiences influence turnover decisions made in remote regions.

- Perceived management incompetence and inconsistent implementation of HRM policies increases voluntary turnover.

- Management practices influence how HRM policies are implemented and whether or not they are localised.

- The implementation of localised HRM policies in remote regions improves workforce sustainability.

- Managers are the key to workforce sustainability.

Chapter Seven: HR outcomes, management practices and remote health workforce sustainability.

7.0 Chapter overview

7.1 Declaration: Previously published material

7.2 Introduction

7.3 An examination of supportive management practices promoting health workforce stability in remote northern Australia.

7.3.1 Methods

7.3.2 Results

7.3.3 Discussion

7.3.4 Summary

7.4 The moderating role of human resources outcomes on management practices and remote health workforce sustainability.

7.4.1 Methods

7.4.2 Results

7.4.3 Discussion

7.4.4 Summary

7.5 Conclusion

7.6 Chapter summary

7.0 Chapter overview

The chapter contains the quantitative data analysis that seeks to address RQ3 and is divided into two sections. The first section describes the findings of a preliminary analysis of the data which shaped understanding of the contribution that the quantitative data provided in the interpretation of the findings for this mixed methods thesis. The paper, *An examination of supportive management practices promoting health workforce stability in remote northern Australia*, was presented at an international health conference in a remote Aboriginal Community about one and a half hours south of Cairns. The positive response received from remote health professionals at this conference contributed to the comprehension about the importance of management practices for remote health professionals and reinforced their influence on retention.

The second section, *The moderating role of human resources outcomes on management practices and remote health workforce sustainability*, analysed the quantitative data, examining how management practices influence workforce sustainability for health professionals working in remote regions of northern Australia. The model presented in this chapter reveals that where effective management practices exist, particular HR outcomes (professional isolation, empowerment and remuneration), together with work engagement, moderate the achievement of remote health workforce sustainability. The findings provide evidence for the argument that both HRM policy choices and complementary supportive management practices are necessary for the achievement of long-term desirable organisational outcomes. That is, without effective management practices, HRM policies and HR outcomes are less likely to support workforce sustainability. This is the second chapter that seeks to address the research question (RQ3): *How do HRM policy choices and management practices influence health workforce sustainability for health professionals working in remote regions of northern Australia?*

7.1 Declaration: Previously published material

Portions of the first section have been published in the paper entitled, '*An examination of supportive management practices promoting health workforce stability in remote northern Australia*' which was published in *Australasian Psychiatry.*

7.2 Introduction

> *While some HR policies may impact on employees directly, most rely on line manager action or support, and the quality of the relationship between employees and their immediate line managers is liable, too, to influence perceptions not only*

of HR practices but of work climate, either positively or negatively (Purcell & Hutchinson, 2007, p.5).

HRM is a component of most managerial roles with line managers being the people who usually implement HRM policies in the workplace (Townsend et al., 2012a). Therefore, an employee's perceptions of HR practices within an organisation are based primarily on the practices of their line manager (Purcell & Hutchison, 2007; Townsend et al., 2012). Thus, finding effective and sustainable solutions to the challenges for retention of health professionals in remote regions requires management practices that will ultimately contribute to improving access to health services and the health of people living in remote regions (Roots & Li, 2013). This chapter examines how management practices influence HRM policy choices and the subsequent influence of these HRM policy choices on HR outcomes and workforce sustainability for health professionals working in remote regions of northern Australia.

7.3 An examination of supportive management practices promoting health workforce stability in remote northern Australia.

Current evidence suggests that the coordination of a structured support system could strengthen and sustain retention of health professionals in rural areas

(Fisher & Fraser, 2010, p.294)

For many health professionals, the idea of working in remote Australia ignites a sense of adventure as they anticipate new challenges. Regardless of whether the choice to work in remote regions is about lifestyle, financial benefit or making a difference, the challenges are often more extensive than many health professionals anticipate. These pressures frequently lead to voluntary turnover, with high turnover rates reported in remote Australia (Garnett et al., 2008; Hunter et al., 2013).

The literature review in chapter two of this thesis revealed that health professionals leave remote regions for a range of reasons including: poor person-fit; inadequate housing; excessive travel; limited resources; difficulty accessing leave; and concerns about personal safety (Onnis & Pryce, 2016; Campbell et al., 2012). In addition, remote health professionals report that the physical and emotional demands of working in remote regions have personal consequences, including personal isolation, loneliness, stress, and feeling exhausted (Onnis & Pryce, 2016; Campbell et al., 2012). Many of these challenges contribute to poor health.

Health professionals living in remote regions are just as susceptible to Australia's one in five rate of mental illness (Dunbar et al., 2007). Therefore, it is imperative that organisations

encourage supportive management practices that promote interpersonal relationships strengthening inclusion and social cohesion. These relationships often manifest as organisational commitment and retention, as well as contributing to the overall wellbeing of the individual health professional (HWA, 2014). Other factors that contribute to both retention and individual wellbeing are a healthy lifestyle and social support networks, both of which have been highlighted in the literature (Onnis & Pryce, 2016; Campbell et al., 2012).

The aim of this section of this chapter was to examine management practices which support the wellbeing of health professionals working in remote regions. It is proposed that these practices could improve workforce retention, and access to health services in remote regions.

7.3.1 Methods

This chapter draws on data from the online questionnaire as described in chapter three. The first section of this chapter reports on a portion of the data that was analysed during preliminary data analysis for this thesis. As such, it has a smaller sample (n=118) than that reported in the second section of this chapter. Statistical analysis was conducted to identify statistically significant correlations between the commitment scale items and the support scale items. The scale items are listed in Table 7.1, including the questions and the associated scale categories. The quantitative data were analysed using SPSS22.

7.3.2 Results

This sub-sample was almost evenly distributed with participants from Queensland and Western Australia. Most participants lived in a regional centre (62%) with the remainder living in a remote town (16%) or a very remote community (22%). Most participants had worked in a remote region with their current employer for less than five years (62%). Approximately one quarter (28%) had been there for less than two years. There were a higher proportion of female participants (84%). The majority were nurses (60%) and allied health professionals (21%); with the remainder (19%) comprising GPs, Indigenous health workers, dentists and specialists.

Correlations

The relationship between supportive management practices (e.g. personal safety) and the commitment scale items (e.g. loyalty) were investigated using Pearson product-moment correlation coefficient. Statistically significant correlations were identified between two commitment scale items and ten supportive scale items (Table 7.1). Analysis identified a strong positive correlation between ‘loyalty to their employer’ and ‘professional growth’, ‘employer support’, ‘personal safety’, ‘help from their manager at work’ and ‘management understands their role’. A milder positive correlation was found between ‘loyalty to their employer’ and

'supervision', 'adequate resources', 'sufficient training opportunities' and 'orientation'. Weaker positive correlations were found between 'it would be hard for me to leave this job now' and 'supervision', 'employer support', 'management understanding', and 'orientation'.

These findings suggest that there is a correlation between supportive management practices and the level of commitment to the organisation. For example, those who felt loyal to their employer also felt that their employer provided for their personal safety, and supported them in terms of access to professional development, orientation and available resources.

7.3.3 Discussion

These findings suggest that supportive management practices provide a work environment conducive to positive individual wellbeing. Herzberg's motivation-hygiene theory, which was discussed in chapter two and chapter six, provides a theoretical understanding of the influence of dissatisfaction on turnover. The findings suggest that while supportive management practices are common across the workforce the impact is individualised and so too are the responses. Therefore, it is reasonable to suggest that retention can be improved through supportive, localised management practices that are adapted for each individual and promote organisational support.

Perceived Organisational Support (POS)

POS is a form of social exchange between an employee and their employer (Wright & Kehoe, 2008). It is proposed that when the organisation treats the employee well, the employee reciprocates, by working to benefit the organisation (Brunetto et al., 2013). In remote regions, the benefits of POS are important because employees who consider their employer supportive are more likely to reciprocate which often translates into improved retention (Wright & Kehoe, 2008; Xerri, 2013). POS forms through supportive management practices, such as providing for personal safety. Organisations provide safe workplaces through meeting workplace health and safety requirements providing for both the physical and mental health of employees. The nature of the work for remote health professionals creates additional challenges. For example, in remote regions personal support often extends beyond the traditional work day with health professionals working and living together in close proximity (Onnis & Pryce, 2016; Campbell et al., 2012).

Table 7.1: Correlation between management support and commitment items

Scale Items	1	2	3	4	5	6	7	8	9	10	11	12
1. My employer provides adequately for my personal safety (MS)	-	.603**	.380**	.338**	.284**	.567**	.551**	.285**	.481**	.217*	.474**	.433**
2. I feel loyal to my employer (C)		-	.154	.446**	.370**	.619**	.631**	.297**	.492**	.266**	.539**	.335**
3. There is adequate access to annual / recreation leave (MS)			-	.260**	.201*	.311**	.352**	.303**	.134	.129	.242*	.364**
4. My employer provides regular professional supervision (MS)				-	.489**	.358**	.301**	.407**	.350**	.304**	.573**	.473**
5. I have all the resources that I need to do my job (MS)					-	.332**	.496**	.482**	.270**	.212*	.359**	.568**
6. My employer has always supported me (MS)						-	.716**	.360**	.528**	.289**	.643**	.381**
7. This employer lets me grow and develop professionally (MS)							-	.248*	.570**	.183	.487**	.633**
8. The orientation / induction, provided by my employer prepared me for this job (MS)								-	.468**	.220*	.542**	.467**
9. My supervisor / manager understands what I do in my job (MS)									-	.278**	.625**	.403**
10. It would be hard for me to leave this job now (C)										-	.221*	.231*
11. My supervisor / manager helps me a lot at work (MS)											-	.484**
12. I am provided with sufficient opportunities for training and development (MS)												-

** $p < 0.01$ (2-tailed)

* $p < 0.05$ (2-tailed).

MS = Management Support scale items

C = Commitment scale items

Page and Vella-Broderick (2009) found strong relationships between employee wellbeing and voluntary turnover (Holland et al., 2015). Similarly, Xerri (2013) reported that the absence of support in challenging circumstances, may lead to voluntary turnover and have negative health impacts for the individual(s) involved. The effects of bullying, harassment and lateral violence are well documented (Wright & Kehoe, 2008). Alarmingly, Hegney et al. (2003) reported that the sources of workplace violence for nurses, after patients, were nursing management, other nurses, other managers and other staff (including medical practitioners and allied health professionals). Furthermore, there is increased risk for nurses as it is less likely that there would be current 'policies for the management of workplace violence from staff' (Xerri, 2013, p.267). In isolated remote regions, the risk is high. Increased risk and inadequate management responses can place further pressure on a health service already under resourced. Therefore, management practices have long term impacts for the individual and their families, and societal wellbeing (Brunetto et al., 2013).

Regardless of whether they have connections with the remote region or form part of a visiting health service, the individual wellbeing of health professionals translates into the quality of care that they are physically and emotionally able to provide. This thesis found a statistically significant association between several supportive management practices scale items and two commitment scale items. The WHO Report on retention in rural and remote regions recognises the importance of personal and professional support as key factors influencing the retention of health professionals (Hegney et al., 2003; WHO, 2010). Hence, the wellbeing of health professionals is a personal, professional, and an organisational responsibility. For those working in remote regions where turnover is high, it also improves workforce sustainability.

7.3.4 Summary

Health professionals working in remote Australia face unique pressures due to geographical, personal and professional isolation. Therefore, providing support improves their professional competence, personal wellbeing, and promotes workforce stability. Health professionals who feel adequately supported have greater capacity to positively influence their own personal wellbeing, as well as the health outcomes for remote populations. Therefore, management support is not only a significant aspect of retention for organisations, it also promotes workforce sustainability, which benefits individuals and remote populations through better access to appropriate health services.

7.4 The moderating role of human resources outcomes on management practices and remote health workforce sustainability.

HRM policy choices influence the operational and performance outcomes for organisations through the HR outcomes that emerge from these policy choices. This section of this chapter continues to build on the Theoretical HRM Framework of the extant concepts from analysis of the management domain literature presented in chapter two of this thesis. It presents the findings from the quantitative data analysis. The quantitative component of this thesis provides data to improve our understanding of the relevance of the HR concepts identified through the literature to this particular workforce, health professionals in remote northern Australia. An examination of the influence of the HRM policy choices and HR outcomes through quantitative data analysis provides empirical evidence about the influence of management practices on workforce sustainability. This contributes to the evidence-base where health researchers propose that not only does workforce sustainability contribute to overcoming workforce shortages, it optimises retention which is key to ensuring that in the long-term health services are appropriate and sustainable (Chisholm, Russell & Humphreys, 2011). The section begins with an overview of the relevant literature before reporting the findings from the quantitative data analysis.

HR outcomes

Paauwe (2009, p.136) notes that 'there is no single agreed, or fixed, list of HR practices or systems of practices that are used to define or measure human resource management.' In fact, a review of the literature reveals that there is disagreement about the antecedents and the predictive ability of HR practices on desired outcomes (Knights & Kennedy, 2005; Vandenberg & Lance, 1992). The literature contained evidence that workforce sustainability is connected to work-related concepts, including: autonomy, empowerment, personal and professional isolation, job security, remuneration, competence, organisational commitment, peer support, job satisfaction, leader-member exchange (LMX), perceived organisational support (POS) and organisational citizenship behaviour (OCB) (Iverson & Buttigieg, 1999; Knights & Kennedy, 2005; Penz, Stewart, Carl & Morgan, 2008).

The literature revealed variations and ambiguity in the HR outcome relationships which further confounded the challenges in determining the appropriate HR measures for examining sustainability for workforces in remote regions. For example, Maertz and Griffeth (2004) found that job satisfaction, organisational identification, person-fit, POS and organisational commitment are positively correlated with each other and negatively correlated with turnover intention. Allen et al. (2003) also found a positive relationship between

supportive HR practices and organisational commitment, and supportive HR practices and job satisfaction; however, they were mediated by POS (Snape & Redman, 2010). Researchers also suggested that LMX impacted job satisfaction, commitment and turnover (Sluss & Thompson, 2012; Xerri, 2013).

Several studies suggested that commitment is an antecedent of satisfaction (Bateman & Strasser, 1984; Vandenberg & Lance, 1992), yet others suggest that satisfaction is an antecedent of commitment (Knights & Kennedy, 2005). While Mathieu and Zajac (1990) suggest that satisfaction and commitment are correlates, others suggest that turnover and intention to leave are more strongly associated with organisational commitment than with job satisfaction (Knights & Kennedy, 2005). Therefore, 'whether satisfaction influences commitment, or whether commitment to the organisation results in job satisfaction, is an area of contention among researchers' (Knights & Kennedy, 2005, p.59).

Although inconsistent, the common thread is the endeavour to seek a universal set of relationships between HR practices, commitment, satisfaction and performance. Wright and Kehoe (2008, p.9) suggest that given the increasing complexity of the conceptualisations of HR practices and commitment the assumption of a universal set of relationships may be misguided. Regardless, this complexity enables a deeper understanding of the HR practice measures and their impact on desired outcomes (Wright & Kehoe, 2008).

Job satisfaction is generally associated with retention (Knights & Kennedy, 2005; Ko & Hur, 2014). According to Hagopian, Zuyderduin, Kyobutungi and Yumkella (2009, p.872) '[j]ob satisfaction matters to health systems managers because it is an important factor in predicting system stability (reduced turnover) and worker motivation.' Rosete (2006, p.20) describes two types of job satisfaction: global satisfaction with the job and satisfaction with components of the job. Penz et al. (2008) found that the main correlates of job satisfaction reported in the literature included: autonomy, rewards, relationships (peers and supervisors), stress, fairness, and remuneration. However, financial rewards used to increase commitment may not influence retention unless the reward is at a level that required an employee to have a reduction in remuneration if they left (Wright & Kehoe, 2008). While some studies suggest that the direct manager influences remuneration, others suggest that remuneration decisions are made outside the immediate work area and are not attributed to being within the power of the direct manager (Maertz et al., 2007; Maertz et al., 2012; Thompson, 2011).

Changing employment relationships and the rise of the 'protean career' mean that many employees are focusing their loyalty to a place of perceived stability, such as their occupation

rather than a particular organisation (Blau, 2009; Snape & Redman, 2003). The protean career perspective holds that a career is not necessarily tied to a particular organisation, as such, 'job security, trust in the relational contract and loyalty are seen as irrelevant residues of a bygone era' (Holland et al., 2015, p.104). Thus, the protean career perspective focuses on the individual and their occupational commitment more than organisational commitment. There is an assumed stability in occupational satisfaction over job satisfaction which is partially based on the view that individuals voluntarily change jobs due to dissatisfaction with organisational issues such as supervision, co-workers, or working conditions, but usually remain in the same occupation (Blau, 2009). 'The pivotal role of the employer in the psychological contract brings to the fore the issue of who is the employer' (Coyle-Shapiro & Kessler, 2000, p.907). In remote regions, the employer is often distanced from the workplace, often creating ambiguity for the employee about their role and responsibilities to their employer and the health service. This is highlighted in the high prevalence of Agency staff and local staff who hold casual positions with more than one employer at the same time. Meyer and Allen (1997) report that the literature recognises that different foci of commitment often exist that may have a different effect on individual employee behaviour at work.

Theoretical framework

In chapter two of this thesis, the literature review was described in great detail. This literature review identified a theoretical framework to guide data collection and analysis - The Harvard Analytical Framework for HRM (Figure 2.4). The Harvard Analytical Framework for HRM described four areas of HRM policy: HR flow, employee influence, reward systems and work systems, which result in four HR Outcomes (Beer et al., 1984). These HR Outcomes (commitment, competence, congruence and cost-effectiveness) have long-term consequences for both employees and organisations. Safdar (2012) notes that HR outcomes aim to develop mutual trust which improve individual and/or group performance at a minimal cost, while also achieving individual comfort, organisational effectiveness and contributing to societal well-being. In a study considering the impact of workforce sustainability on vulnerable remote populations the Harvard Analytical Framework for HRM provided a structure within which to examine the people management aspects of the sustainability of remote health workforces (Beer et al., 1984).

The HR Outcomes described by Beer et al. (1984) were consistent with the areas of HRM policy and HR practices highlighted in the literature that were likely to influence long-term workforce sustainability. The literature also emphasised the influence of management

practices, particularly in regard to the interpretation, implementation and localisation of HRM policy in remote contexts (Onnis & Pryce, 2015; WHO, 2010).

In addition, the review of the management domain literature identified HR concepts that were relevant to workforce sustainability and a theoretical framework was developed - the *Theoretical HRM Framework of the extant concepts from analysis of the management domain literature* (Figure 2.5); from this point forward referred to as the *Theoretical HRM Framework*. The findings from the literature reviews shaped the quantitative data collection, analysis and interpretation for this thesis. The HR concepts contained in the Theoretical HRM Framework were consistent with those that emerged through analysis of the empirical data as being significant for remote health workforces. Hence, examining the influence of these HR concepts, including management practices, provided evidence about how these practices are critical to the achievement of the desirable long-term outcome: health workforce sustainability.

It is proposed that management practices are influencing workforce sustainability indirectly through their impact on HR outcomes and directly in terms of aspects of decision-making about continuing employment and work conditions (Figure 7.1). Therefore the following hypotheses are proposed:

H1: Management practices (LMX, POS) influence health workforce sustainability (SRHW) for health professionals working in remote regions of northern Australia.

H2: Management practices (LMX, POS) influence HR outcomes which influence workforce sustainability (SRHW) for health professionals working in remote regions of northern Australia.

The Theoretical HRM Framework developed from the literature review, was used to identify suitable HR outcome measures for data analysis. Drawing on the Harvard Analytical Framework for HRM to guide analysis it was assumed that HR outcomes contribute to the achievement of the desired outcome, which is a sustainable remote health workforce (SRHW). Hence, for the remote health workforce, it was conceptualised that management practices (LMX and POS) influence these HR Outcomes and the achievement of a SRHW. Based on findings from the literature review and the Theoretical HRM Framework, work engagement and job satisfaction were identified as suitable variables for the SRHW measure. Thus, the following hypotheses are proposed:

H3: Management practices (LMX, POS) influence the translation of HRM policy choices for the HR Outcome: Commitment (Organisational commitment, Occupational

Commitment, embeddedness and Job Security); which influences health workforce sustainability for health professionals working in remote regions of northern Australia.

H4: Management practices (LMX, POS) influence the translation of HRM policy choices for the HR Outcome: Competence (Competence and Professional Isolation); which influences health workforce sustainability for health professionals working in remote regions of northern Australia.

H5: Management practices (LMX, POS) influence the translation of HRM policy choices for the HR Outcome: Congruence (Empowerment, Autonomy, Personal Isolation and Person-fit); which influences health workforce sustainability for health professionals working in remote regions of northern Australia.

H6: Management practices (LMX, POS) influence the translation of HRM policy choices for the HR Outcome: Cost-effectiveness (Remuneration); which influences health workforce sustainability for health professionals working in remote regions of northern Australia.

H7: Management practices (LMX, POS) and the HR Outcomes (Commitment, Competence, Congruence, cost-effectiveness) influence Work Engagement (SRHW).

H8: Management practices (LMX, POS) and the HR Outcomes (Commitment, Competence, Congruence, cost-effectiveness) influence Job Satisfaction (SRHW).

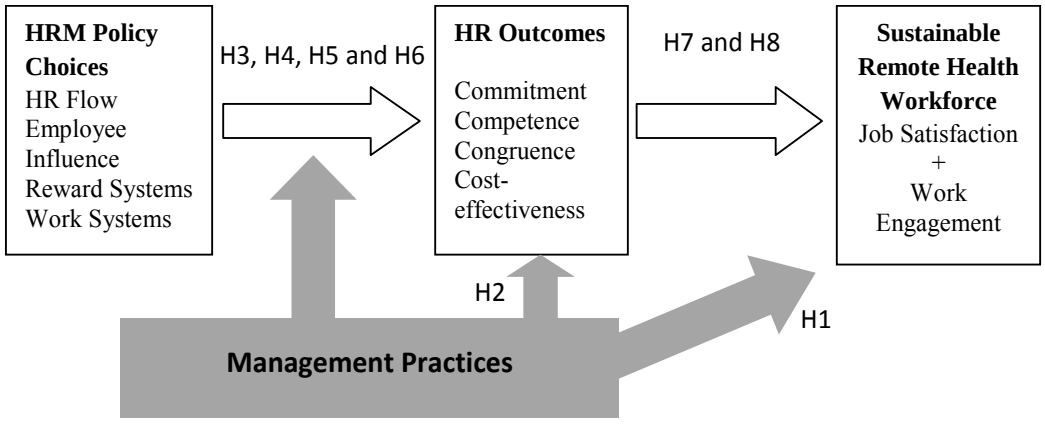


Figure 7.1: Conceptual Model

7.4.1 Methods

Chapter three described the quantitative data collection methods in detail; this section contains information more specific to the findings discussed in this chapter. An online questionnaire was distributed to health professionals working in remote regions of northern Australia between January 2014 and July 2015. The same questionnaire was disseminated twice (one year interval) attempting to create a dataset (subset of the complete sample) of those health professionals who were still employed in the remote region one year later. There were only four participants who completed the questionnaire twice so their second questionnaire responses were removed from the dataset. This subset sample was too small for analysis; however, it was a reminder of the degree of workforce turnover in this region. Moreover, one participating organisation advised that only 85 of the 208 participants (41%) from the first distribution were current employees in the region one year later. The data was collated and coded (Appendix L) using Microsoft Excel 2007. Data analysis was conducted using IBM SPSS22 and SPSS23. IBM SPSS AMOS was used to conduct the path analysis.

Questionnaire Design

The questionnaire was designed to include questions that covered the concepts identified through the literature review. There were three sections, the first measured work engagement using a modified version of the 9-item Utrecht Work Engagement Scale (UWES); the second collected qualitative data; and the third contained 60 questions covering the other key variables using 6-point Likert scales (1 = Strongly Agree and 6 = Strongly Disagree). This article reports on the quantitative data from section one and three. The HR outcome measures used in this thesis are described in Table 7.2.

Measures

Utrecht Work Engagement Scale (UWES)

The Utrecht Work Engagement Scale (UWES) is the most widely used scale for measuring work engagement and has been used across diverse work groups and countries including translation into different languages (Mills, 2012; Nerstad et al., 2010; Seppala et al., 2009; Schaufeli et al., 2006). There are three dimensions of work engagement and their interactions are consistently reported to produce a Cronbach's alpha higher than 0.80 (Balducci, Fraccaroli, & Schaufeli, 2010; Nerstad et al., 2010; Schaufeli et al., 2006). While the three dimensions contribute to the work engagement construct, the collinearity of the dimensions is such that they can be used as a single measure for work engagement (Balducci et al., 2010; Nerstad et al., 2010).

A trial of the questionnaire with current and former remote health professionals identified the need to modify some questions. Five of the questions were slightly modified e.g. *Time flies when I am at work* to *Time flies when I am working*. This thesis found that one of the UWES questions, *My work is challenging,* cross loaded over several factors and negatively correlated with the questions about experiencing *pressure* at work and being *understaffed*. This is consistent with the research that associates work engagement as being the 'positive antipode of burnout' (Schaufeli et al., 2006; Seppälä et al., 2009) or more conservatively described as being at the other end of the burnout spectrum but not necessarily the antipode (Mills, 2012; Truss, Shantz, Soane, Alfes & Delbridge, 2013). This question was removed from the *work engagement* scale. Given that for this study the aim was to measure the relationship of work engagement with HR outcomes and management practices, not to investigate the dimensions of work engagement. The measure had a Cronbach's alpha higher than 0.80 (without this question) supporting the previous research that the collinearity of the three domains means that the UWES-9 can be used as a single measure of work engagement (Schaufeli et al., 2006).

Management Practices

Social Exchange Theory proposes two types of social exchange, leader-member exchange (LMX) and perceived organisational support (POS) (Xerri, 2013; Ko & Hur, 2014; Lee & Hong, 2011). LMX emphasises 'the quality of exchange between the employee and the supervisor and is based on the degree of emotional support and exchange of valued resources' (Ko & Hur, 2014, p.177) whereas POS focuses on the exchange relationship between the employee and the organisation. Ko and Hur (2014) argued that the quality of the exchange between employees and their manager reflects a degree of trust, loyalty and respect. For this reason, LMX and POS were used as measures to represent the influence of management practices on HR Outcomes in achieving a SRHW.

HR Outcome Measures

The questionnaire included modified questions from studies conducted by Gould-Williams and Davies (2005), Maertz and Boyar (2012), and Maertz, Boyar and Pearson (2012). The HR outcome measures that emerged as key aspects of a SRHW were: competence, empowerment, personal isolation, professional isolation, remuneration and work engagement (Table 7.2 and 7.3). The procedure for identifying these measures is explained in the results section of this chapter.

Sustainable Remote Health Workforce (SRHW)

The measure for SRHW was originally conceptualised as being representative of *job satisfaction* and *work engagement*. The literature suggested that turnover was associated with

work engagement, organisational commitment and job satisfaction; however, consensus has not been reported on whether one has more influence than the other (Gambino, 2010; Knights & Kennedy, 2005; McFarlane et al., 1989). Furthermore, whether commitment is an antecedent of satisfaction (Bateman & Strasser, 1984; Vandenberg & Lance, 1992), whether satisfaction is an antecedent of commitment (Knights & Kennedy, 2005; DeCotiis & Summers, 1987), or whether satisfaction and commitment are correlates (Mathieu & Zajac, 1990) there was sufficient evidence to suggest that together they form a suitable measure for a SRHW. That is, an engaged workforce that demonstrates commitment and job satisfaction is less likely to experience high turnover. Furthermore, the research by Wright and Kehoe (2008) exploring multiple commitments reinforced the relevance of a general commitment measure for SRHW; hence, job satisfaction and work engagement were used initially as the measure of a SRHW for this study.

Table 7.2: Description of conceptualised key outcome measures

Competence	Succeeding at challenging tasks and achieving the desired outcomes working within professional guidelines (Baard, et al., 2004)
Empowerment	The extent to which employees have an increased scope for autonomous practice and decision making (Gould-Williams & Davies, 2005)
Job Satisfaction	Positive emotion derived from your work (Ignat & Clipa, 2012)
Personal Isolation	Social support and the work-home interface may affect an employee's sense of inclusion or embeddedness in an organisation and community. Feelings of personal isolation describe the employee's feeling of isolation which often arise from a lack of social support and are known to influence the decision to leave (van der Heijden, Dam & Hasselhorn, 2009)
Professional Isolation	Describes the absence of a professional sense of mutual respect for colleagues and the inability to rely on peers (e.g. cross-disciplinary differences or geographical isolation)
Remuneration	The extrinsic rewards provided in return for work effort (e.g. salary, leave, financial incentives)
Work Engagement	A positive work-related state of mind characterised by vigour, dedication and absorption in the actual work itself (Nerstad et al., 2010; Schaufeli et al., 2006)

7.4.2 Results

Descriptive data analysis

The sample (n=213) included more participants who worked in remote areas of northern Queensland (62.6%) than northern Western Australian (37.4%). There were a higher proportion of female (83.5%) than male participants; and approximately half (54.6%) were

nurses. This is fairly representative of the workforce as nurses and midwives form approximately 82% of the remote health workforce; and in Australia 89.7% of nurses and 98.2% of midwives are female (HWA, 2014).

All of the participants who disclosed their age were 30 years or older. Most participants were over 40 years (90.8%), and many were over 60 years old (40.3%). More than half (51.9%) had been with their current employer in a remote region for less than four years and 18.4% had been with their current employer in a remote region for less than one year. There was a reasonable spread of participants across work locations, living locations, occupations and adequate representation of those who had management responsibilities and participants who had received incentives (Table 7.3).

Table 7.3: Description of sample that completed 'section three' of the online questionnaire (n=213)

Variable	Total %	Variable	Total %
Region		**Rural/Remote Placement**	
Queensland	62.6	Yes	27.5
Western Australia	37.4	No	72.5
Gender		**Management Responsibility**	
Male	16.5	Yes	42.4
Female	83.5	No	57.6
Age (years)		**Occupation***	
30<39	9.2	Allied Health	24.2
40<49	25.7	Dentist	1.4
50<59	24.8	GP	5.3
60<69	32	Specialist	1.9
70+	8.3	IHW	6.8
		Nurse	54.6
Work Location		**Living Location**	
Very Remote	24.8	Live & work very remote	42.4
Remote Town	15.5	FIFO live regional	27.8
Regional Centre	59.7	FIFO live city	13.2
Remote incentives		**Free Annual Flight**	
Yes	59.5	Yes	45.1
No	40.5	No	54.9

*Some variables do not add up to 100% as the values for 'other' were not presented.

Descriptive statistics, factor analysis and correlations

The data was assessed for normality through SPSS22 using the Kolmogorov-Smirnov goodness-of-fit test, normality plots, box plots and histograms. The sample size was adequate to conduct a Factor Analysis according to Comrey and Lee (2013) who state that a sample of 200 cases is fair, and Tabachnick and Fidell (2007) who suggest that while a sample size of at

least 300 cases is preferred, samples of at least 150 cases are sufficient where high loading variables and ratio of cases for each item are present (Pallant, 2009).

Factor analysis was conducted as a data reduction technique to determine whether the sixty questions could be summarised as a smaller set of factors (Tabachnick & Fidell, 2007; Pallant 2009). A review of the literature suggested that it was acceptable to conduct Exploratory Factor Analysis (EFA) as the questions had been drawn from other scales, as well as some additional questions, so they had not been tested together in this way before (Chang et al., 2012; Theriou & Chatzoglou, 2009). While the literature provided insight and additional questions were drawn from literature from different disciplines, this was the first time all the questions were used with this population so the way in which they would come together was unknown.

EFA was conducted with the preliminary data to validate the questionnaire and to make sure that the data came together in factors that made sense to the researcher. The EFA identified 15 factors that explained 73.56% of the variance. Once single question factors and cross-loading factors were removed, it appeared that there were ten factors that explained the data. While these ten factors explained 60.12% of the data (Appendix M), this is reported cautiously given the small sample size (n=148) and possible multi-collinearity issues. Confirmatory Factor Analysis (CFA) was deemed to be a more suitable method for the final data analysis for three reasons: EFA had been undertaken in the preliminary analysis to validate the questionnaire; the thoroughness of the literature review meant that there was a reasonable level of expectation about the way that these variables would come together; and a theoretical framework and subsequent proposed model was developed suggesting that identifying the final factors was more confirmatory than exploratory in nature. CFA using Principal Components Analysis identified ten factors (Table 7.4) which explained 63.76% of the variance. Varimax orthogonal rotation method with Kaiser Normalisation, resulted in a Kaiser-Myer Olkin Measure of Sampling Adequacy of 0.828 and a significant Bartlett's Test of Sphericity ($p < 0.001$) (Appendix N).

The Cronbach's alpha was calculated for each of the ten factors to determine internal reliability. Two factors (work conditions and embeddedness) with a Cronbach's alpha below 0.50 were removed. The remaining eight factors had a Cronbach's alpha ranging from 0.64 to 0.93, and while the preference for internal reliability was a Cronbach's alpha above 0.70, the majority of factors had a Cronbach's alpha above 0.70 so they were deemed to have adequate levels of internal consistency (Briggs et al., 2009; Pelletier et al., 1995). Data analysis proceeded with eight factors which comprised two management factors (LMX, POS), work engagement, and five HR outcomes (competence, professional isolation, empowerment, personal isolation and

remuneration). The means, standard deviations and Cronbach's alpha for these measures are presented in Table 7.5.

Correlation analysis was conducted to identify relationships between the factors. The results presented in Table 7.6 suggest statistically significant relationships between the management practices (LMX, POS) and some of the HR Outcomes. There were also strong correlations ($r > .50$) for SRHW, management practices and some HR Outcome items, suggesting strong relationships; however, they do not indicate in which direction the relationship exists (Pallant, 2007).

Table 7.4: Factors identified through Confirmatory Factor Analysis

Factor	Cronbach's Alpha
Leader Member Exchange (LMX)	0.930
Work Engagement	0.879
Perceived Organisational Support (POS)	0.820
Empowered	0.771
Personal Isolation	0.744
Professional Isolation	0.663
Competence	0.636
Remuneration	0.631
Work Conditions	0.500
Embeddedness	0.498

Multi-collinearity

The high correlations suggest that there may be a problem with multi-collinearity, that is, a high correlation between variables that affects the overall model. While multi-collinearity is inevitable in these types of studies; it can be a problem because it inflates the variance and so multi-collinearity concerns should be addressed (Masden, 1989). The literature suggested that calculating the Variance Inflation Factor (VIF) is a good way to check the acceptable level of multi-collinearity (Kennedy, 1992; Hair et al., 1998). A VIF of 10 and above indicates a possible multi-collinearity problem (Hair et al., 1998; Ellonen, Blomgyist & Puumalainen, 2008). The VIFs for this data range between a 1.1 and 3.3 (Appendix O), which suggest that multi-collinearity is not a serious concern for this dataset (Hair et al., 1998; Ellonen et al., 2008; Asteriou & Hall, 2011). Therefore, data analysis continued to further understand the relationships of these variables and the way in which they influence the achievement of a SRHW.

Table 7.5: Summary of measurement items, item loads, means, standard deviations and Cronbach's alpha.

Item Development	Measurement Item (Construct)	Item Load	Mean	SD	Cronbach's alpha
	LEADER-MEMBER EXCHANGE *(LMX)*				**.930**
Maertz & Boyar 2012	I have great respect for my supervisor/manager	.847	2.38	1.441	
Maertz & Boyar 2012	My supervisor/manager helps me a lot at work	.806	3.22	1.506	
	My supervisor/manager understands what I do in my job	.803	2.22	0.990	
Maertz & Boyar 2012	I have a close relationship with my supervisor/manager	.795	2.24	0.996	
Maertz & Boyar 2012	My supervisor/manager will really help my career	.772	3.13	1.444	
Gould-William & Davies, 2005	My supervisor/manager keeps me informed about workplace issues	.744	2.29	0.927	
	My manager has experience working in a remote region	.651	2.17	1.301	
	PERCEIVED ORGANISATIONAL SUPPORT (POS)				**.820**
Maertz & Boyar 2012	With this employer I can achieve my career goals	.634	2.82	1.328	
	My employer has broken promises to me about promotions (R)	.590	2.38	1.408	
Gould-William & Davies, 2005	There is a clear status difference between management and staff (R)	.556	4.10	1.324	
	This employer lets me grow and develop professionally	.515	2.32	0.913	
Gould-William & Davies, 2005	A rigorous selection process is used to recruit and select new people	.496	2.96	1.245	
	I have all the resources that I need to do my job	.489	3.19	1.378	
	COMPETENCE				**.636**
	My job has clear boundaries	.587	3.04	1.289	
	My employer provides regular professional supervision	.571	3.42	1.582	
	The orientation/induction, provided by my employer prepared me for this job	.425	3.36	1.460	
	EMPOWERMENT				**.771**
Gould-William & Davies, 2005	I can make my own decisions in carrying out my job	.762	2.16	0.784	
	My actual role is very similar to my job description	.543	2.39	0.867	
	My employer understands the demands of remote travel	.511	2.16	0.851	
	My employer provides study leave so that I can attend training	.484	2.13	0.913	

	PROFESSIONAL ISOLATION				**.663**
Maertz & Boyar 2012	My co-workers respect my skills and experience	.798	2.14	0.985	
Maertz & Boyar 2012	I respect my co-workers	.650	1.69	0.629	
Maertz & Boyar 2012	My co-workers can help me with my career	.525	2.50	0.885	
	REMUNERATION				**.631**
Maertz & Boyar 2012	It would be easy to find a job that pays better than mine (R)	.761	3.18	1.239	
Maertz & Boyar 2012	I am satisfied with the salary I receive for the work I do	.704	2.23	0.856	
Maertz & Boyar 2012	People doing my job at other organisations get paid better (R)	.621	3.17	1.376	
Gould-William & Davies, 2005	The offer of more money with another employer would make me think of changing my job (R)	.453	3.81	1.448	
	PERSONAL ISOLATION				**.744**
Maertz & Boyar 2012	My family want me to find a job closer to them (R)	.860	3.73	1.770	
Maertz & Boyar 2012	My friends want me to get a job where I could live closer to them (R)	.849	3.52	1.664	
	It is difficult to take leave from my remote workplace (R)	.503	3.40	1.368	
	WORK ENGAGEMENT				**.887**
Schaufeli & Bakker, 2003	I find the work that I do full of meaning	.802	2.15	1.083	
Schaufeli & Bakker, 2003	At work, I feel strong and enthusiastic	.801	2.56	1.129	
Schaufeli & Bakker, 2003	When I get up, I feel like going to work	.794	2.56	1.150	
Schaufeli & Bakker, 2003	I am proud of the work that I do	.759	1.96	0.968	
Schaufeli & Bakker, 2003	At my work, I feel bursting with energy	.740	3.08	1.205	
Schaufeli & Bakker, 2003	I feel happy when I work intensely	.724	2.42	1.077	
Schaufeli & Bakker, 2003	Time flies when I am working	.646	2.02	1.030	
Schaufeli & Bakker, 2003	I get carried away with my work	.506	2.85	1.292	
	SRHW				**.631**
Maertz, Boyar & Pearson, 2012	I feel fairly rewarded for the amount of effort I put into my job	-	2.33	.890	
Maertz & Boyar 2012	I feel loyal to my employer	-	2.14	1.071	
	My employer provides adequately for my personal safety	-	2.15	.909	
	My work is satisfying	-	1.88	.772	

Table 7.6: Correlations between the HR Outcomes and the SRHW measure

	Mean	SD	1	2	3	4	5	6	7	8	9
1. LMX	2.27	.82150	-								
2. POS	2.85	.78507	.480**	-							
3. Competence	3.26	1.10367	.569**	.498**	-						
4. Empowerment	2.16	.56989	.496**	.578**	.328**	-					
5. Personal Isolation	3.55	1.30972	.157*	.243**	.204**	.118	-				
6. Professional Isolation	2.06	.61581	.369**	.427**	.273**	.333**	.090	-			
7. Remuneration	3.02	.83908	.105	.297**	.080	.121	.232**	.156*	-		
8. Work Engagement	2.45	.83735	.186*	.341**	.301**	.330**	.088	.313**	.138	-	
9. SRHW	2.24	.67251	.581**	.663**	.550**	.636**	.203**	.488**	.255**	.550**	-

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

Step-wise Multiple Regression

Multiple regressions were conducted since there was already a sound conceptual and theoretical reason for the analysis model and variables (Pallant, 2007). Tabachnick and Fidell (2007) report that an adequate sample size for multiple regressions can be calculated using the formula of 50 cases, plus eight for each independent variable. With a sample size of 213 cases, this study exceeds the minimum sample size described for multiple regressions; however, it is smaller than the minimum needed for stepwise multiple regressions. Tabachnick and Fidell (2007) report that for stepwise multiple regressions, a sample of 40 cases for each independent variable is required for a solution to be produced that is generalisable beyond the sample. This is acknowledged as a limitation of this study; however, analysis continued as it still provided a reasonable analysis of the variable relationships for the study sample.

SPSS 22 was used to conduct the stepwise multiple regression, as such, the order of regression for the independent variables was determined by statistical criteria that generate the stepwise procedure. In SPSS, a stepwise selection for a multiple regression is a combination of forward and backward procedures (Coakes, 2013). The stepwise multiple regressions found that 60.9% of the variance of the entire model was explained by the management practices and HR outcome variables using the original measure for SRHW (job satisfaction and work engagement). The stepwise multiple regressions were conducted again using the revised measure for SRHW (described in more detail below) and found that 69.5% of the variance of the entire model was explained by the management practices and HR outcome variables (Appendix P). The stepwise multiple regressions suggested that the interrelationships of the independent variables were such that they were explaining a large proportion of the model. It also indicated that while multi-collinearity was not necessarily a problem with tolerances below 0.9, VIFs well below 10 and condition indexes well below 30; there were some variance proportions above .50 which suggested that investigation for multi-collinearity was sensible (Tabachnick & Fidell, 2007). To further understand these interrelationships a path analysis was conducted.

Path Analysis

A path analysis was conducted using AMOS (IBM SPSS 22). The first path analysis suggested that the initial measure for SRHW, work engagement and job satisfaction, was not appropriate and a model did not emerge that statistically satisfied a model of good fit. It was essential to have a measure for SRHW to complete analysis of the data so an *a priori* approach was taken to develop a more appropriate measure for a SRHW. A review of the measure for SRHW, including further reflection of the findings from the literature review revealed an alternative more appropriate measure for SRHW which embraced Herzberg's motivation-hygiene theory.

Herzberg's motivation-hygiene theory (1968) proposed that there needs to be an appropriate level of reward to minimise dissatisfaction before satisfaction can influence the outcome (Arnolds & Christo, 2002; Campbell et al., 2012; Nadkarni & Stening, 1989). Thus, while considering job satisfaction (motivation) as a positive aspect of workforce sustainability it was essential to also consider aspects that may lead to dissatisfaction (hygiene); hence, minimising the overall benefit of job satisfaction. The revised SRHW measure used the Herzberg's motivation-hygiene theoretical perspective including two questions from the questionnaire to measure hygiene factors, these were *I feel fairly rewarded for the amount of effort I put into my job* and *My employer provides adequately for my personal safety.* Also, it included two questions from the questionnaire to measure motivation factors, these were, *My work is satisfying* and *I feel loyal to my employer*. This *a priori* approach led to the development of the revised measure for SRHW (Cronbach's Alpha of 0.631) and a revised conceptual model (Figure 7.2). Therefore, H1 was revised and an additional hypothesis (H9) was proposed:

H1: Management practices influence SRHW

H9: The HR Outcomes influence SRHW.

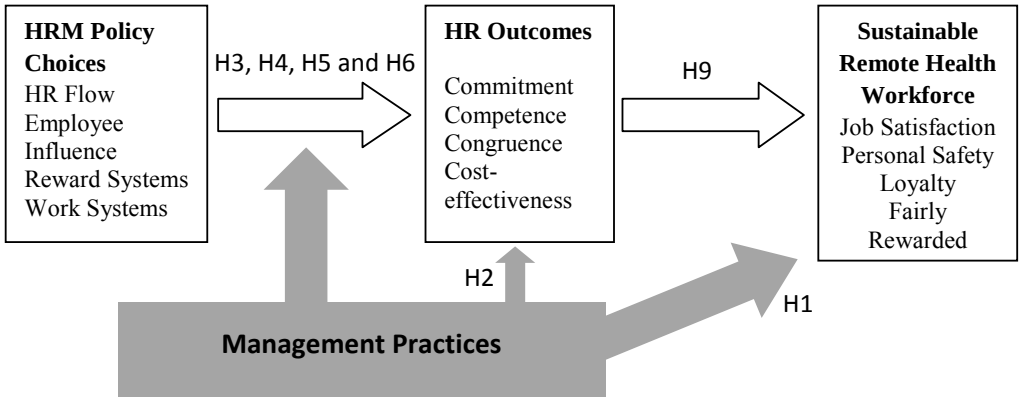


Figure 7.2: Revised Conceptual Model

Using this revised SRHW measure, another path analysis was conducted. The fit indices used to examine how well the model fits the data included root mean-square error of approximation (RMSEA), comparative fit index (CFI) and the Tucker-Lewis index (TLI) (Xerri & Brunetto, 2013). A model is considered a 'good' fit with a relative Chi-squared measure (χ^2 / *df*) smaller than two (Perlman, 2013). The model presented has a good fit: χ^2 (*df* = 19) = 1.003, p<0.001;

χ^2 / *df* = 1.003. NFI = 0.962; TLI = 1.00; CFI = 1.00; RMSEA = .004 (Vieira, 2011). The full path model, including estimated path coefficients, revealed statistically significant relationships (Figure 7.3). The 'path analysis itself can only show the existence of correlation', causal relationships are established based on further analysis and theoretical evidence (Zhang, Jansen, & Chowdhury, 2011, p.166).

AMOS uses critical ratio (CR), which is the parameter estimate, divided by its standard error (Zhang et al., 2011). The CR needs 'to be larger than 1.96 or smaller than -1.96 in order to reject the null hypothesis' (Zhang et al., 2011, p.170). For the hypotheses proposed in this chapter, the path analysis showed varying degrees of support. LMX ($b = 0.23$, CR = 4.206; $p < 0.001$) and POS ($b = 0.24$, CR = 3.775; $p < 0.001$) had a significant direct relationship with a SRHW supporting H1, and direct relationships with some of the HR Outcomes partially supporting H2. The CFA did not formulate factors for the HR commitment outcome so H3 is not supported. Therefore, the HR outcomes for commitment have emerged as an area for further research. LMX ($b = 0.21$, CR = 2.618; $p < 0.01$) and POS ($b = 0.34$, CR = 4.275; $p < 0.001$) had a significant direct relationship with professional isolation. LMX ($b = 0.46$, CR = 6.950; $p < 0.001$) and POS ($b = 0.31$, CR = 4.648; $p < 0.001$) had a significant direct relationship with competence. Professional isolation had a significant relationship with SRHW ($b = 0.17$, CR = 3.436; $p < 0.001$); however, competence did not, so H4 is only partially supported. LMX ($b = 0.27$, CR = 3.830; $p < 0.001$) and POS ($b = 0.52$, CR = 7.422; $p < 0.001$) had a significant direct relationship with empowerment. Only POS had a significant direct relationship with personal isolation ($b = 0.27$, CR = 3.914; $p < 0.001$). Empowerment had a significant relationship with SRHW ($b = 0.26$, CR = 3.882; $p < 0.001$); however, personal isolation did not so H5 is only partially supported. Only POS had a significant direct relationship with remuneration ($b = 0.31$, CR = 4.193; $p < 0.001$) so H6 is only partially supported.

LMX and POS did not have statistically significant direct relationships with work engagement. The HR outcomes of professional isolation and empowerment moderated the relationship between LMX, POS and work engagement. Work engagement had a statistically significant relationship with SRHW ($b = 0.21$, CR = 4.387; $p < 0.001$), so H9 was partially supported; however, not in the way initially conceptualised.

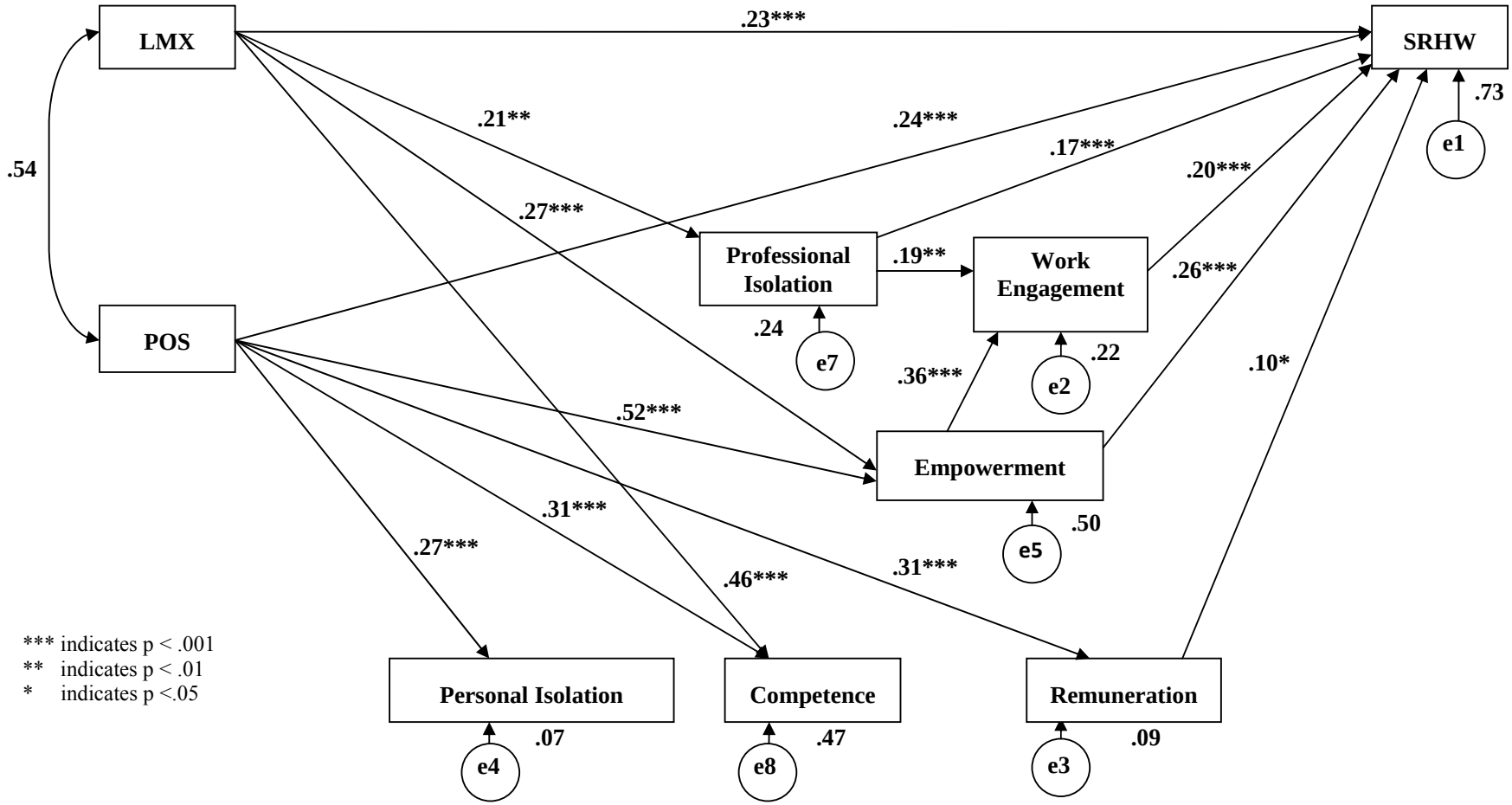


Figure 7.3: Model – Influence of Management practices on achievement of remote health workforce sustainability

The management practices (LMX and POS) had direct significant relationships with SRHW (as described previously). There are also several statistically significant indirect relationships suggesting that some of the HR outcomes (professional isolation, empowerment and remuneration) moderate the relationship for management practices and SRHW. The moderated relationship with remuneration and SRHW had a considerably weaker association than the other HR outcomes. Interestingly, professional isolation and empowerment moderated the relationship with management practices and SRHW for work engagement which was initially considered a component of a SRHW in the conceptual model. These relationships and the moderated model are examined further considering the literature and the remote context.

7.4.3 Discussion

Overall, the findings support the argument that management practices influence the relationship between HRM policies and HR outcomes in the achievement of a SRHW. Furthermore, the HR outcomes that moderate the relationship between management practices and the achievement of a SRHW provide valuable insights for health service organisations. The findings from this thesis are interpreted with caution, acknowledging that the small sample size, the low response rate and possible multi-collinearity effects impacted the extent to which the findings are generalisable. However, they do provide evidence that HR outcomes are ineffective in achieving long term outcomes without effective management practices. That is, without effective management practices, HR outcomes are less likely to support workforce sustainability. The model shows that where there are effective management practices, some HR outcomes moderate for the achievement of the desired outcomes. In this case, the findings suggest that *professional isolation* and *empowerment* significantly influence the achievement of a SRHW. In addition, remuneration has significant influence, albeit a milder relationship, with the desired outcome of workforce sustainability.

Organisational commitment was an anticipated HR outcome; however, a robust scale item did not emerge though the CFA. Aspects of organisational commitment emerged in other scale items, for example, *The offer of more money with another employer would make me think of changing my job* (Remuneration) and *I feel loyal to my employer* (SRHW), suggesting that organisational commitment plays a less significant role for this population. Bartlett (2001, p.336) found that organisational commitment had elements that were consistent with the findings from this study, such as loyalty, and commitment to co-workers, their supervisor and their profession. Multiple commitments often lead to competing obligations which may influence decision-making, especially where health professionals travel frequently or are geographically separated from their families and friends (Wright & Kehoe, 2008).

Organisational commitment may be influenced by employment related factors such as job security, temporary employment contracts and Agency staff, minimising the benefits of organisational commitment for workforce sustainability. Wright and Kehoe (2008, p.11) argue that multiple commitments may not always conflict; however, 'competing commitments can both inhibit commitment strength or impede a commitment.' For remote health professionals this is a salient point as many manage multiple commitments and continue to enjoy the opportunities that remote practice brings; competing commitments may be central to understanding the impact of commitment on voluntary turnover.

> *[T]he crux of the argument is that high levels of perceived organizational support would generate an obligation on employees to reciprocate the donor of this benefit; one act of reciprocation would take the form of enhanced commitment to the source of the benefit* (Coyle-Shapiro & Kessler, 2000, p.909).

Psychological contract theory provides theoretical insights into the contribution of perceived reciprocal obligations that arise during psychological contract formation. Psychological contracts are unwritten contracts that provide the basis for a reciprocal relationship and the organisations fulfilment of these obligations by the employer (Coyle-Shapiro & Kessler, 2000; De Cuyper et al., 2008). In remote regions where turnover is high it may be that these perceived employer obligations are not formed, particularly where temporary employment is common. Temporary employment and Agency staff may not develop relational psychological contracts due to the lack of ongoing employment commitment, thus they would be more likely to have transactional than relational psychological contracts (Mallette, 2011).

Occupational commitment may be more prevalent where there are low levels of job security. Where an employee's commitment to their professional is stronger than their commitment to the organisation, any commitment to the organisation is 'contingent upon it supporting their professional values and beliefs' (O'Donohue, Donohue & Grimmer, 2007, p.307). The relationship between management practices, professional isolation and SRHW is consistent with the argument that professional or occupational commitment is one of the multiple commitments that impact voluntary turnover (Wright & Kehoe, 2008). Furthermore, the moderating effect of work engagement is consistent with the findings of O'Donohue et al. (2007, p.307) who reported that 'commitment to the profession underpinned high levels of job involvement not contingent on remaining with the organisation.' Global workforce shortages of health professionals, such as nurses, and the increase in contingent labour and temporary employment contracts suggest that occupational commitment will continue to increase as protean careers continue to rise. Consequently, organisational commitment will decrease as

competent health professionals have mobility, being able to move between organisations at their convenience while remaining committed to their profession (Irving, Coleman & Cooper, 1997).

Finally, employees have personal commitments which may influence retention. The model shows the relationship between 'personal isolation', which included questions about obligations to family and friends, and POS. It was anticipated that there would also be a statistically significant relationship with LMX; however, this is not the case for this sample population. The questions that formed the scale item for POS included aspects of perceived support in terms of growth, recruitment, promotion, and resources, all of which are core components of workplace conditions. The LMX questions were more specifically about the employee-manager relationship, which in the remote context may be suggesting that many health professionals in remote regions perceive that their line manager has limited influence over their sense of personal isolation; perceiving that it is associated more specifically with organisational systems.

Work engagement, together with professional isolation and empowerment moderated the relationship between management practices and a SRHW. The work engagement questions from the UWES focus quite specifically on the work itself rather than organisational aspects of work. Health professionals working in remote regions are known to demonstrate high levels of work engagement (Opie et al., 2011). Work engagement had a relationship with a SRHW; however, it may not promote retention when an employee engaged in their profession does not need to be committed to an organisation, particularly, where there are workforce shortages, low job security and temporary employment arrangements.

Remuneration is a contested area of benefit for remote workforces. There is evidence emphasising the benefits of incentives and bonus schemes for rural and remote recruitment and retention programs (Humphreys, McGrail, Joyce, Scott & Kalb, 2012; Russell, Wakerman & Humphreys, 2013). In contrast, there is evidence suggesting that financial rewards are short-term motivators and as such do not promote long-term solutions for workforce sustainability (Campbell et al., 2012; Hackman & Oldham, 1976). The model shows that remuneration moderates POS and SRHW and does not have a statistically significant relationship with LMX. These findings reinforce that psychological contracts are formed with employers and so expectations are made in terms of the perceived obligations of the employer, in terms of remuneration, the limited influence line managers have on remuneration is reflected in this model.

HRM policies that provide for the effective recruitment and selection of competent employees with appropriate person-fit, both organisational and contextual are paramount. Furthermore,

autonomy and job satisfaction are important in remote regions (Wakerman et al., 2009). *Empowerment* which included questions about decision-making, role clarity and support, had a statistically significant relationship moderating for management practices and a SRHW. The work practices undertaken by remote health professionals require high levels of competence, and it is interesting that for this population, competence had a statistically significant relationship with management practices but not with a SRHW.

Overall, the model provides evidence for recognising the most influential HR outcomes for the achievement of a SRHW. In examining these HR outcomes, it became apparent that Herzberg's motivation-hygiene theory is pertinent here. Herzberg's theory proposed that the actual work is more important than the hygiene factors in terms of job satisfaction; however, the hygiene factors must be addressed to minimise dissatisfaction. Therefore, if considered as an equation, if the organisation does not provide sufficient resources and support to minimise the employee's feeling of dissatisfaction with their job on the one side, then it is unlikely that high job satisfaction on the other side is enough for the employee to remain in the remote workplace with that employer. Hence, for remote health workforces, where there is minimal job dissatisfaction and high job satisfaction, retention is a more likely outcome (Brunetto & Farr-Wharton, 2002).

Remuneration, particularly where transactional psychological contracts are evident may contribute to the reduced levels of dissatisfaction rather than increases in job satisfaction. Herzberg provides a worthwhile theoretical foundation to consider the remote health workforce. With many organisations continuing to channel funding into improved incentives and bonuses to attract health professionals to remote regions they may only being going half way along the path to improving retention. A complementary approach that seeks to improve job satisfaction through the work itself would improve the likelihood of retention. Kanungo and Hartwick (1987) noted that the incentives are only beneficial when they relate to the work itself, also suggesting that performance-based incentives and intrinsic rewards are a better way to truly motivate and satisfy employees. This is not a new idea, Nadkarni and Stening (1989, p.560) described this phenomenon in 1989 drawing on the work of Porter (1961), Cram (1972) and Herzberg (1968) in a study of workers in remote mining towns:

> *... the satisfaction of these needs was expected by workers: they were analogous to Herzberg's (1968) hygiene factors in the sense that if they were not satisfied there would almost certainly be job dissatisfaction, but satisfying them did not ensure overt satisfaction ... management seemed convinced that the men only worked for money ... while the financial rewards associated with work in remote resource*

communities are paramount, increasingly attention must be directed towards other aspects of the compensation package ... with a view to giving employees a long-term future in the organization.

Knights and Kennedy (2005) proposed that while turnover intention was more strongly associated with organisational commitment than it was to job satisfaction, it could also be proposed that job satisfaction was more closely associated with actual turnover than organisational commitment. In this population, where organisational commitment was not strong, occupational commitment and the geographical challenges suggest that job satisfaction is more likely to influence workforce sustainability.

7.4.4 Summary

The literature review provided the framework to examine workforce sustainability (Figure 2.5). Using this framework, this section of this chapter highlighted the need to reconceptualise a SRHW for remote health professionals. While the findings cannot be generalised, they suggest areas where further research should be focused. The model that emerged from the statistical data analysis (Figure 7.3) suggested that management practices directly influence the achievement of a SRHW. It also suggests that management practices influence the impact of the HR outcomes on a SRHW. Given the continued focus of HRM policies in improving retention, workforce stability and work conditions in remote regions, it is critical to consider the long term effects of management practices on the achievement of a SRHW.

Finally, the findings highlighted the influence of occupational commitment for these particular health professionals, suggesting that as a commitment measure, occupational commitment is more influential that organisational commitment, which may explain the high levels of turnover observed in some remote regions. The revised SRHW measure provides further evidence of the way in which 'commitment' is demonstrated by remote health professionals. These findings are not generalisable; however, they provide evidence to suggest that further research in this area is warranted, particularly if it is closely related to the observed high turnover in remote regions which is costly for organisations and detrimental to the health of remote populations.

7.5 Conclusion

HRM will always be a balancing act, and within constraints, there are still choices (Thompson, 2011, p.364).

This chapter sought to address RQ3: *How do HRM policy choices and management practices influence health workforce sustainability for health professionals working in remote regions of northern Australia?* It found that if remote regions are to improve access to health services, health workforce sustainability is essential. In contemporary workplaces HR practitioners are often removed from the coalface, and it is the frontline managers who interpret HRM policies and through their management practices, organisations receive the benefits of the HR outcomes in differing degrees and with varying consequences. The model presented in this chapter proposes that while the HR outcome measures remain contested, while the most influential HR outcomes for reducing voluntary turnover and improving retention may still be unclear, some aspects of management practice are not only clear, there is established theoretical and empirical support for their effectiveness in general, and in remote regions more specifically. LMX and POS influence the achievement of a SRHW.

In geographically remote regions, improvements to the sustainability of the health workforce will not be observed where retention is dependent on financial incentives and bonuses that are not linked to the work itself. Therefore, supportive management practices that extend to minimise workforce dissatisfaction, such as personal safety and adequate remuneration, are more likely to improve workforce retention. Building on the theoretical foundations formed decades ago, the findings of this study provide further evidence of the critical role that line managers play in managing people in geographically remote workplaces.

So to answer RQ3, the relationships identified in this chapter provide evidence of the critical role that managers play in the achievement of a SRHW in remote northern Australia. The moderating role of the HR outcomes emphasised the role of the HR outcomes in achieving a SRHW. Furthermore, they are a reminder that management practices influence the implementation of HR outcomes in all organisations. However, in remote regions where voluntary turnover is frequent, the cost of poorly implemented HRM policies and ineffective management practices may be considerably higher. The findings from this chapter provide evidence about the way in which HRM policy choices, and management practices, influence health workforce sustainability for health professionals working in remote regions of northern Australia. Management practices directly influence the achievement of a SRHW where the HR outcomes are present; and, HRM policy choices do not lead to HR outcomes that influence the achievement of a SRHW, if management practices (LMX, POS) are not present.

7.6 Chapter Summary

- Preliminary data analysis found a strong statistically significant correlation existed between *loyalty to their employer*; and *supportive* management practices.

- Health professionals who felt loyal to their employer also felt that their employer provided for their personal safety, and supported them in terms of access to professional development, orientation and available resources.

- A conceptual model developed from the findings from the management domain literature review was used to test nine hypotheses.

- Work engagement moderates for the influence of management practices on a SRHW; it is not an aspect of a SRHW.

- The revised SRHW measure based on Herzberg's motivation-hygiene theory was more appropriate for this dataset than *work engagement* and *job satisfaction*.

- Management practices influence the implementation of HR outcomes.

- The question *My work is challenging* did not load strongly on the work engagement scale.

- Without management practices HRM policy choices do not lead to HR outcomes that influence SRHW.

Chapter Eight: Developing an Integrated HRM Framework for sustainable remote health workforces

8.0 Chapter overview

8.1 Introduction

8.2 MMR: Comparing and contrasting the qualitative and quantitative findings

8.2.1 RQ1: What are the espoused HRM policies and how do they influence remote health workforce sustainability?

8.2.2 RQ2: What is a sustainable remote health workforce?

8.2.3 RQ3: How do HRM policy choices and management practices influence health workforce sustainability for health professionals working in remote regions of northern Australia?

8.3 Interpreting the Mixed Methods Research findings

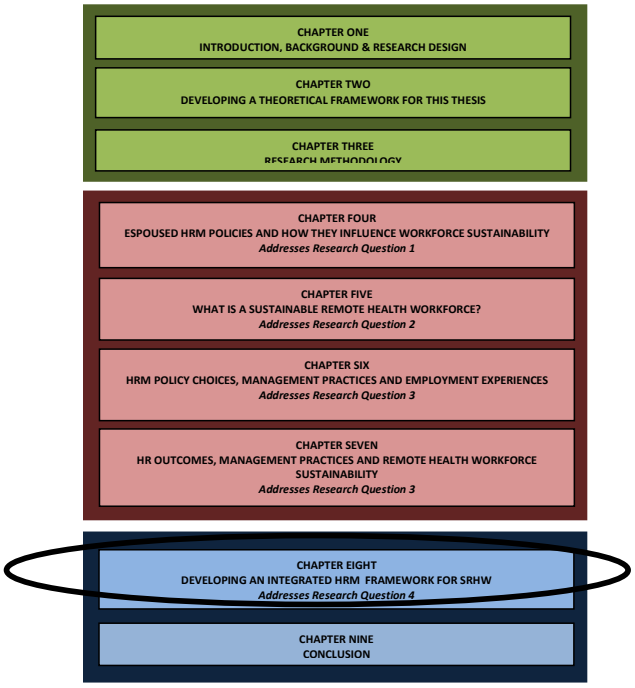
8.3.1 RQ4: How can management practices support the sustainability of remote health workforces?

8.4 The Integrated HRM Framework for sustainable remote health workforces

8.4.1 The *I*-HRM-SRHW: Policies into practices

8.5 Conclusion

8.6 Chapter summary



8.0 Chapter overview

This chapter analyses the findings from the qualitative and quantitative data using the mixed methods research (MMR) methodology. The chapter begins by comparing and contrasting the findings from the qualitative and quantitative data analysis described in chapters four, five, six and seven of this thesis. The findings are then triangulated and interpreted using the MMR methods. This chapter seeks to answer research question four (RQ4): *How can management practices support the sustainability of remote health workforces?* In answering RQ4, the chapter explains the development of the *HRM Framework for sustainable remote health workforces* and the *Integrated HRM Framework for sustainable remote health workforces.* The chapter concludes with an examination of how the *Integrated HRM Framework for sustainable remote health workforces* addresses the key challenges identified through the both the literature and the empirical evidence contained in this thesis.

8.1 Introduction

> *A major premise behind the use of mixed methods is that a combination of quantitative and qualitative approaches provides added perspectives and a more comprehensive understanding of the research problem or phenomenon being studied than either approach alone could provide* (Cameron, 2011, p.248).

The MMR methodology for this thesis was congruent with the researcher's vision that a combination of both qualitative and quantitative research methods would provide richer data analysis and interpretation, and would contribute to achieving the research aim, along with the HRM approach, in a complementary and pragmatic manner. While both the approach and the method contributed to providing empirical evidence where there was a deficiency (Allan & Ball, 2008; Lehmann et al., 2008; Gill & Meyer, 2011), it was through the MMR methodology that the key findings emerged.

The MMR design for this thesis was QUAN + QUAL (Figure 8.1), signifying that both of the methods (quantitative and qualitative, respectively) are afforded equal weighting and that the data is collected concurrently. Using the Triangulation Design: Convergence Model (Figure 8.1) this thesis examined complementary data from managers and health professionals working in remote regions of northern Australia (Tashakkori & Teddlie, 2003; Creswell & Plano Clark, 2007). The qualitative data was collected through interviews and text questions in the questionnaire, while the quantitative data was collected through the questionnaire and the recruitment advertisements. Each dataset was analysed separately and the findings were presented and discussed in chapters four, five, six and seven. This chapter describes the final two stages of the convergence model (Figure 8.1), examining the findings that emerged through

comparing and contrasting the qualitative and quantitative findings and interpreting these findings to provide insights that were not evident in each research method alone. That is, when triangulating the findings, new patterns emerged that explained the findings in a way not previously observed (Cameron, 2011; Johnson & Onwuegbuzie, 2004).

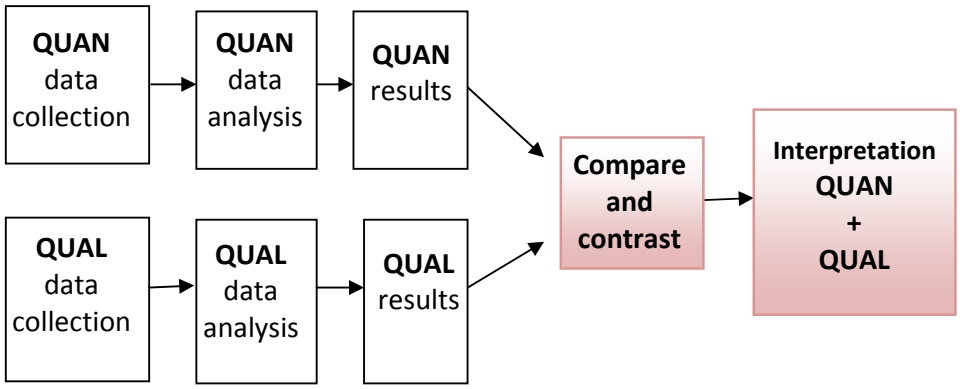


Figure 8.1: Triangulation Design: Convergence Model (Creswell & Plano Clark, 2007, p.63)

8.2 MMR: Comparing and contrasting the qualitative and quantitative findings

The previous chapters have discussed the findings and addressed the first three research questions that this thesis sought to answer. This section uses the MMR methodology to analyse these findings to address RQ4. The key findings from each data source (recruitment advertisements, questionnaires, and interviews) were considered and plotted in a table using the HRM policy choices (HR flow, employee influence, work systems and reward systems) and HR outcomes (commitment, competence, congruence and cost-effectiveness) from the Harvard Analytical Framework for HRM (Beer et al., 1984) to show how each data source provides individual, yet complementary, findings for this thesis (Table 8.1).

The HR concepts from chapter two reported in the findings, and the themes that have emerged through the thematic data analysis were consistently reported in this thesis. Table 8.1 demonstrates their relevance not only to each other but to this thesis. In terms of the MMR design, Table 8.1 provides further evidence that while each data source contributed to answering each research question in its own right, when the evidence from each data source is viewed through the MMR lens, the various data sources show consistency in the findings and thus enable triangulation of not only quantitative and qualitative research findings but enable such triangulation from three different research approaches. For example, with the HRM policy choice of 'HR Flow', a review of the findings shows that the HR constructs that emerged in the quantitative advertising data were *management practices* and *person-fit*. These HR constructs also emerged in the quantitative questionnaire data, as well as *POS, work engagement* and *occupational commitment*. A review of the findings from the qualitative interview data shows

that the HR constructs that emerged included three that emerged in the quantitative data (*management practices, person-fit* and *occupational commitment*) as well as *mastery* and *job security*. Finally, a review of the findings from the qualitative questionnaire data shows that four of the HR constructs (*management practices, person-fit, mastery* and *occupational commitment*) that emerged in the other datasets were present. In addition, there were themes, such as *person, practice* and *place* that emerged across datasets and data sources. Hence, this section provides deeper meaning through the triangulation of the quantitative and qualitative findings.

The Theoretical Integrated HRM (TI-HRM) Framework (Figure 8.2) introduced in chapter two was used to conduct the analysis and interpretation of the MMR findings for this thesis. The TI-HRM framework provided a canvass on which to examine, compare and contrast the quantitative and qualitative research findings, and to consider the thesis' findings with those from the literature review; hence, identifying where this thesis contributes new knowledge in this field of research. While Table 8.1 established consistency in the findings through the various data sources, this thesis seeks to examine the influence of management practices on the achievement of a SRHW through four research questions, therefore the next section focuses more specifically on how an examination of the findings through the MMR lens addresses and answers these research questions.

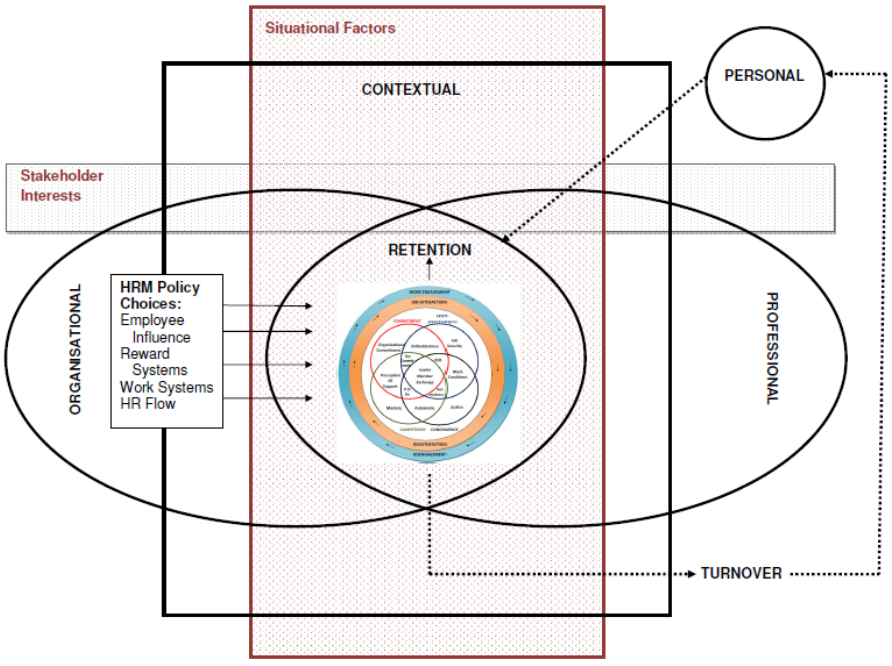


Figure 8.2: Theoretical Integrated HRM (TI-HRM) Framework

Table 8.1: MMR evidence of themes (T) and HR constructs (C) that influence the achievement of a SRHW from the various data sources

HRM Policy Choice*	HR Outcome*	DATA SOURCES			
		Quantitative		Qualitative	
		Advertising	Questionnaire	Interviews	Questionnaire
HR Flow	Commitment	Psychological contract (T) Management practices (C) Person-fit (C)	POS (C) Work engagement (C) Occupational commitment (C) Management practices (C)	People (T) Management practices (C) Workforce Stability (T) Occupational commitment (C)	People (T) Management practices (C)
	Competence	Management practices (C)	Management practices (C) Work engagement (C)	Practice (T) Person-fit (C) Mastery (C) Management practices (C)	Practice (T) Person-fit (C) Mastery (C)
	Congruence	Management practices (C) Person-fit (C)	Management practices (C)	People (T) Place (T) Person-fit (C) Workforce Stability (T) Management practices (C) Organisational-identity (T)	People (T) Place (T) Person-fit (C) Management practices (C) Place (T)
	Cost-effectiveness		Management practices (C)	Management practices (C) Workforce Stability (T) Job security (C)	
Employee Influence	Commitment		Work engagement (C) Management practices (C) Loyalty (T)	People (T) Personal isolation (C) LMX (C) / POS (C) Organisational commitment (C)	People (T)
	Competence		Professional isolation (C) Mastery (C) Management practices (C)	Practice (T) Person-fit (C) Professional support (T) Autonomy (C) LMX (C)	Practice (T) Person-fit (C)
	Congruence	Management practices (C) Psychological contract (T) Person-fit (C)	Empowered (T) Personal isolation (C) Management practices (C)	People (T) Person-fit (C) Embeddedness (C)	People (T) Person-fit (C)
	Cost-effectiveness		Management practices (C)		

Work Systems	Commitment		Management practices (C) Loyalty (T) Personal Safety (T) Mastery (C) Work conditions (C) LMX (C) / POS (C) Work engagement (C)	Management practices (C) Workforce Stability (T) Multi-disciplinary (T) Organisational commitment (C)	Practice (T) Management practices (C) Workforce Stability (T) LMX (C)
	Competence	Mastery (C) Person-fit (C) Management practices (C)	Challenging (T) Work engagement (C) Management practices (C)	Practice (T) Workforce Stability (T) Person-fit (C) Management practices (C) Localised HRM policies (T) Mastery (C) Role clarity (T)	Practice (T) Management practices (C) Workforce Stability (T)
	Congruence	Person-fit (C) Mastery (C)	Challenging (T) Work engagement (C) Management practices (C)	People (T) Place (T) Person-fit (C) Work conditions (C) LMX (C)	People (T) Place (T) Person-fit (C)
	Cost-effectiveness	Localised HRM policies (T)	Management practices (C) Person-fit (C) Work conditions (C)	Place (T) Person-fit (C) Work conditions (C) Localised HRM policies (T)	Place (T) Person-fit (C) Work conditions (C)
Reward Systems	Commitment	Remuneration (C)	Management practices (C)	Remuneration (C)	
	Competence		Management practices (C)	Practice (T)	Practice (T)
	Congruence		Management practices (C)	People (T) Remuneration (C) Multi-disciplinary (T) Job satisfaction (C)	People (T) Place (T)
	Cost-effectiveness	Remuneration (C) Multi-disciplinary (T)	Remuneration (C) Management practices (C)	Place (T) Remuneration (C) Multi-disciplinary (T)	Place (T)

*Harvard Analytical Framework for HRM (Beer et al., 1984)

8.2.1 RQ1: What are the espoused HRM policies and how do they influence remote health workforce sustainability?

Chapter four examined the espoused HRM policies communicated to potential employees through recruitment advertisements finding evidence of espoused HRM policies congruent with the HRM policy choices from the Harvard Analytical Framework for HRM (Beer et al., 1984). The literature suggested that the success of HRM policies was often reduced through management practices, more specifically, the interpretation and implementation of HRM policies by managers with competing priorities (Townsend et al., 2012a; Townsend et al., 2012b; Gill & Myer, 2011). Interview participants reported similar observations, some of which are described below.

The content analysis of the recruitment advertising found that occupation had a strong statistically significant association with remuneration. These findings support the narrative from the interviews where both managers and health professionals emphasised the inequity in financial rewards between professions and the challenges this presents with retention. One HR Manager explained:

> *It came to my attention after someone had resigned. On their last day of work I happened to be visiting the site and the women told me that she was doing the same job as the person beside her and she was getting $30,000 less, and I obviously tried to stay on my chair at the time and then later on I followed up with the team leader and I said do you know about that and she said 'Yes, I did know about that'. So I said well what have you done? As in, expecting her to say I took it to my manager, but what she said is I told her, I made sure she knew that she was being paid $30,000 less ... that's what she thought was the appropriate action as a manager. Because she's coming from the position of transparency and those values about inclusive practice and consultation. Completely irrelevant set of guidelines for the type of problem she was facing* (IP2).

In addition, a milder statistically significant association was found with occupation and information describing the geographic location. Several interview participants described the challenges that arise when new employees are not aware of the geographical environment in which they are going to be working. One doctor explained:

> *I have to plead my ignorance. I was expecting lots of crime, I thought I might be raped, I expected to be broken into, I expected not to have satisfactory*

accommodation. They were my concerns. Well, a more specific concern. Once I got the papers and had to fill in all the paperwork to go bush, even for the short stint, I had to apply for a permit through the land council and thought this was odd ... anyway the day came and I'm on the plane, I'm on my way ... and I didn't have the permit in my hand and all the paperwork that came with the application for the permit made it very clear you did not try and tempt fate by landing yourself into remote community without having this permit on you ... I was going to be landing on a commercial plane onto [Aboriginal Community] and I did not have this permit on me. Look, I didn't know what would happen but I thought, maybe there will be a dozen Aboriginal warriors to meet the plane with their spears drawn to check that as you come off the plane that you can show your permit and I didn't have the permit to show. And I thought how am I going to explain myself to people who don't know me ... no-one approach me, especially not with a spear drawn. Now, I've had a very good quality house ... I wasn't broken into, I wasn't raped. I just felt so stupid that I had expected those things when they were all far from the truth of how it really was there but I just realised that I was the one that needed to be educated about living in remote communities (IP4).

The quantitative findings from the recruitment advertising provided evidence that supports the narrative from the interview participants emphasising the importance of ensuring organisations consider the implications of these findings for a SRHW. The findings from analysis of the recruitment advertising were consistent with the literature as they included information and espoused policies from each of the HRM policy choices. In addition, some of the HR constructs (e.g. mastery, remuneration and autonomy) from the management literature review also emerged from this research (Figure 8.3), suggesting that effective management practices are instrumental in ensuring that HRM policies can work toward achieving remote health workforce sustainability.

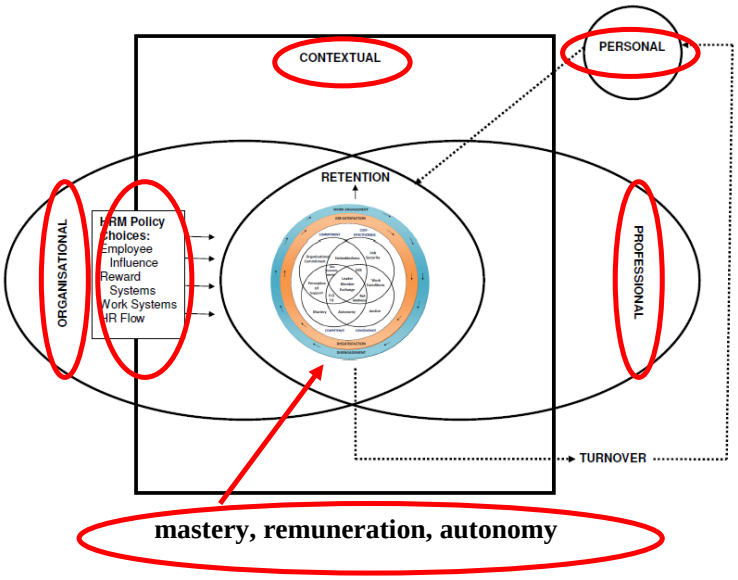


Figure 8.3: RQ1 findings reported using the TI-HRM

8.2.2 RQ2: What is a sustainable remote health workforce?

Chapter five examined the qualitative data from the interviews and the questionnaires to identify the characteristics of a sustainable remote health workforce, as described by health professionals currently working in remote areas. Participants provided insightful descriptions of a SRHW. According to health professionals currently working in remote areas, a SRHW is about *people*, *practice* and *place.* Most importantly, they believed it was achievable, explaining how and what was needed. They also described how management practices influenced the outcomes of many of the HRM policy choices providing opportunities to improve retention. When comparing the findings from the qualitative data analysis described in chapter five, it was clear that the emergent themes – people, practice and place, were consistent with those identified through the analysis of the literature (Figure 8.4). Furthermore, their descriptions included many of the HR constructs identified through the literature review as being relevant to workforce sustainability (Figure 8.4).

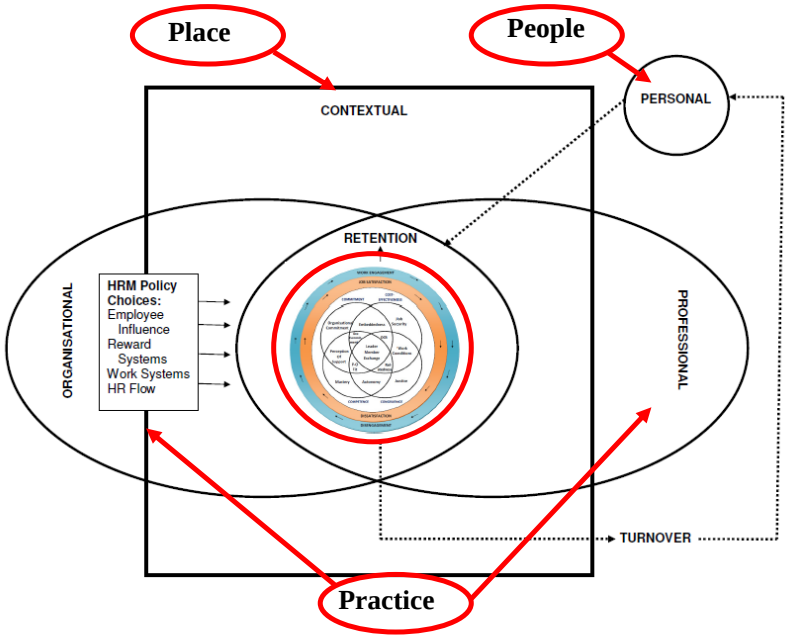


Figure 8.4: RQ2 Findings reported using the TI-HRM

So far, the qualitative findings and the quantitative findings had been consistent with the literature and together provided evidence for the theoretical framework (TI-HRM). While the findings from chapter five provided evidence about the characteristics of a SRHW and the influence of management practices, chapter four provided quantitative data that corroborated some of the findings. For example, participants described the influence of management practices, explaining that inadequate infrastructure, poor resourcing and the mix of personal characteristics and professional skills influence workforce sustainability; areas where managers have responsibility and accountability. Yet, the recruitment advertisements revealed that management qualifications and experience were mandatory for very few advertised management positions. Together, the findings suggested that the perceived poor management practices reported by participants and in the literature may be a consequence of inexperience and poorly supported managers appointed to remote manager positions.

8.2.3 RQ3: How do HRM policy choices and management practices influence health workforce sustainability for health professionals working in remote regions of northern Australia?

Chapter six examined the qualitative data and chapter seven examined the quantitative data, each seeking to answer RQ3. The research design for this thesis included concurrent qualitative and quantitative data collection, analysis and interpretation; however, in practical terms the

qualitative results chapter was written first so the findings will be compared and contrasted in the same order.

Qualitative Findings

The qualitative data analysis identified four key areas of management practice that were consistent with the HRM policy choices in the Harvard Analytical Framework for HRM (Beer et al., 1984). These were recruitment (HR flow); remuneration (rewards systems); resourcing (work systems) and relationships (employee influence). This thesis found that managers play a critical role in the translation of HRM policies into practices that contribute to the achievement of a SRHW in remote northern Australia. Each manager applies their own policy interpretation into their management practices. Furthermore, perceived management competence and inconsistent implementation of HRM policies, including neglecting to localise policies, was identified as a factor that not only influenced the employment experience of remote health professionals, but it increased voluntary turnover. This thesis reported that turnover can be reduced by: giving more consideration to prior management experience and qualifications; improving support and access to professional development; and building positive employee-manager relationships. Yet, the quantitative data from the recruitment advertisements found that a large proportion of organisations are not seeking remote managers with management qualifications and experience. As a consequence managers may not have the necessary skills required in managing the diverse range of challenges encountered in remote regions.

The managers interviewed for this thesis provided evidence that it is possible for managers to transform health facilities with high turnover into health facilities with a stable workforce through management practices such as localised policy implementation. The thesis proposes that it is essential that organisations have an appropriate HRM framework for managers in remote regions so that the translation of HRM policies into management practices contributes to organisational effectiveness and workforce sustainability. In summary, the qualitative data revealed that management practices influence the achievement of a SRHW for health professionals working in remote regions of northern Australia, particularly through supportive management practices, the localisation of HRM policies and their employee-manager relationship.

Quantitative Findings

The quantitative findings are based on analysis of the data from the questionnaire. The statistical data analysis revealed relationships among the HR constructs identified through the management domain literature examined in chapter two. These relationships were explored further and the path analysis discussed in chapter seven provided evidence of statistically

significant relationships that supported many of the themes that emerged from the qualitative data.

The path analysis was particularly valuable in highlighting both common findings and inconsistencies with the qualitative and quantitative data; indubitably, the findings had further meaning when considered together. For example, the qualitative findings revealed that most remote health professionals believe that financial incentives attract health professionals to remote areas but do not improve retention. They suggested that it is intrinsic rewards and community connections that are more likely to influence retention. The quantitative data provided a similar picture with the relationship between remuneration and a SRHW being statistically significant; however, a fairly weak relationship. Further support for the qualitative findings is found in the stronger association between management practices and the HR outcomes (empowerment and professional isolation) and a SRHW.

One of the most important findings to emerge from the thesis was the influence that management practices had in the translation of HRM policies into practices that contribute to the achievement of a SRHW, which was a consistent element in the qualitative narrative and a key aspect of the quantitative findings. The path analysis indicated that the HR outcomes moderated the influence of management practices and a SRHW; however, without the HR outcomes the management practices did not have a statistically significant relationship with a SRHW, as described in chapter seven. Thus, this thesis provides statistically significant evidence to support the qualitative findings, and at the same time, the qualitative findings provided the narrative to explain the quantitative findings.

In addition, the quantitative data analysis indicated that work engagement was not a component of a SRHW; it was moderating, as were the HR outcomes, the influence of the management practices. This thesis proposes that work engagement is the 'commitment' HR outcome for remote health workforces, which contrasts with traditional HRM theories which suggest that organisational commitment is the 'commitment' HR outcome that influences workforce retention (Iverson & Buttigieg, 1999; Knights & Kennedy, 2005). This is a key finding that would not have emerged as clearly without the MMR methodology. Once again the quantitative data identified a statistically significant association and the qualitative findings provided a deeper understanding of the meaning in the thesis context. The narrative suggested that remote health professionals are motivated to remain in remote regions for reasons other than financial benefits and most participants suggested that these 'reasons' were either intrinsic rewards, or community/family connections to the remote region. The content analysis reported that 'scope of practice' was frequently reported as one of the reasons that attracted current

remote health professionals to remote regions. Therefore, when the path analysis indicated that work engagement was not a component of a SRHW, these findings contributed to the realisation that a SRHW was better explained using Herzberg's motivation-hygiene theory than job satisfaction and work engagement. Furthermore, the identification of work engagement as a moderator for a SRHW and the realisation that work engagement is the 'commitment' outcome for remote health workforces provides insight into the turnover challenges being experienced. With remote health professionals displaying commitment to their profession over commitment to the organisation; an opportunity exists for organisations to improve retention through management practices that support the health professional's career and professional development.

When comparing the findings from the qualitative data analysis described in chapter six and the findings from the quantitative data analysis described in chapter seven, the themes that emerged and the statistically significant associations provide empirical evidence consistent with the analysis of the literature (Figure 8.5).

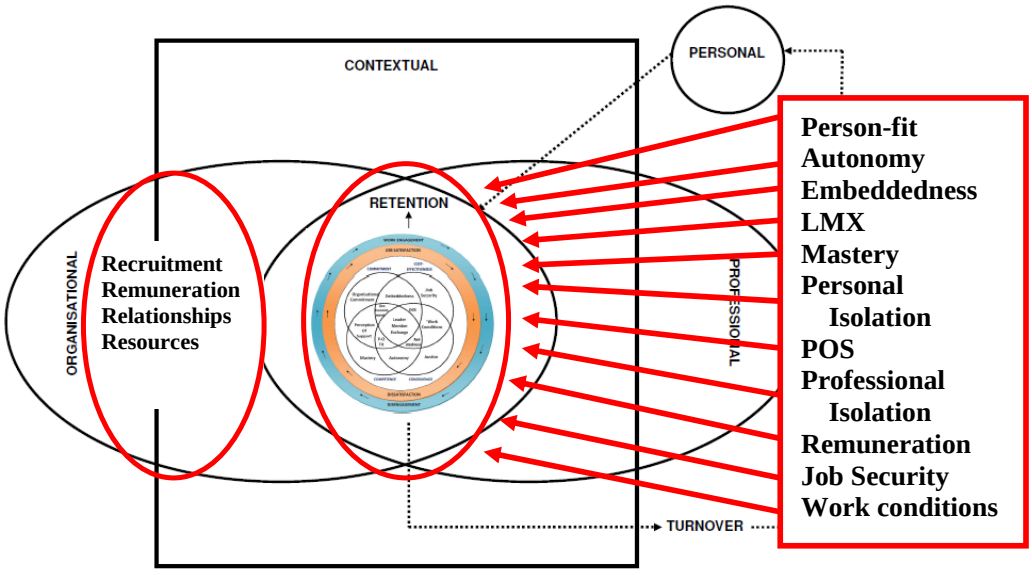


Figure 8.5: RQ3 Findings reported using the TI-HRM

Furthermore, the qualitative data informs the HRM policy choices, identifying more appropriate terms to describe HRM policy choices for remote health professionals. Together they reveal that the TI-HRM needs to be adapted to reflect the statistically significant associations and emergent themes from this thesis.

In summary, the achievement of a SRHW is influenced by intrinsic factors associated with professional isolation, empowerment and work engagement as well as remuneration. Remote regions provide an abundance of opportunities for career development, autonomy and professional growth, all of which provide intrinsic rewards. Building on the theoretical foundations formed decades ago, this thesis provided further evidence of the critical role that managers perform in managing people in remote workplaces. Hence, HRM policy choices and management practices influence health workforce sustainability for health professionals working in remote regions of northern Australia through the moderating role of the HR outcomes. This thesis found that not all of the HR constructs that appeared relevant (QUAL) were statistically significant (QUAN); therefore, not all of the HR outcomes contribute to the achievement of a SRHW. Furthermore, it is a reminder that management practices influence the implementation and localisation of HRM policies and HR outcomes in all organisations.

8.3 Interpreting the Mixed Methods Research findings

The previous section highlighted several areas where comparing and contrasting the findings provided depth and meaning to the findings and enhanced their contribution to achieving the research aim. Cameron (2011, p.248) describes triangulation as a research analysis technique that is often used 'to cross-check and corroborate results by the use of different types of data'. This thesis is improved through the triangulation of the research findings, which established convergence and corroboration of results from different datasets using different analysis methods (Johnson & Onwuegbuzie, 2004). In MMR, triangulation is a common method for validating the research findings through different data collection and analysis methods, and different samples (Brannen, 2009; Johnson & Onwuegbuzie, 2004). In answering RQ4 (How can management practices support the sustainability of remote health workforces?), the key findings discussed in this chapter, those that emerged from more than one source, through more than one research method, and when triangulated, corroborate their importance in contributing to the achievement of a SRHW, are incorporated with the findings from the literature review to develop a framework suitable for remote health workforces.

8.3.1 RQ4: How can management practices support the sustainability of remote health workforces?

Pragmatism has influenced this thesis from its inception; hence, the research questions have provided key findings with practical applications for remote managers and health service providers. Addressing the final research question (RQ4) continues to honour the pragmatism paradigm and so, adopts a solutions-focused approach – the *Integrated HRM Framework for sustainable remote health workforces* (discussed in section 8.4).

To summarise, the emergent themes from the health domain literature review (personal, professional, organisational and contextual) provided a foundation for the conceptual framework (Figure 2.2) used for this thesis which was confirmed as appropriate for remote health workforces through answering RQ1, RQ2 and RQ3; all of which supported the conceptual framework. The analysis identified that some, but not all, of the HR concepts that emerged through the management domain literature review (Figure 2.4) contributed to the achievement of a SRHW. The path analysis revealed which HR outcomes had statistically significant relationships, and the qualitative data analysis confirmed their importance providing deeper meaning through the narrative of experienced remote health professionals.

The MMR findings suggest that the conceptual framework developed through the literature review, with some adaptations, can provide a framework for health service organisations aiming to achieve sustainable remote health workforces in remote northern Australia. To answer RQ4, *How can management practices support the sustainability of remote health workforces?* this thesis proposes that management practices can support the achievement of remote health workforce sustainability through focusing effort on the areas that current remote health professionals identify as critical. This thesis offers the *HRM Framework for a sustainable remote health workforce* (HRM-SRHW) (Figure 8.6) as a tailored framework for remote health service providers to consider when developing retention strategies and planning future workforce capability. The HRM-SRHW proposes that where effective management practices exist, some HR outcomes: professional isolation (competence), empowerment (congruence) and remuneration (cost-effectiveness), together with *work engagement* (*commitment*), moderate the achievement of a SRHW.

The HRM-SRHW integrates the findings from the qualitative and quantitative data creating a framework for considering how to achieve a SRHW. Firstly, it is through effective management practices (LMX and POS) that psychological contracts are fulfilled and the reciprocity of the psychological contract results in improved retention (Gould-Williams & Davies, 2005; Wright & Kehow, 2008; Xerri, 2013). Effective management practices are those that localise HRM policy choices by interpreting and implementing them in a manner appropriate to the geographically remote location. These management practices influence the HR outcomes of competence, congruence and cost-effectiveness, which for remote health workforces have close ties with aspects of professional isolation (e.g. access to professional development, professional peer support), empowerment (e.g. role clarity, autonomy) and remuneration (e.g. remote incentives). Furthermore, the relationship between work engagement, and professional isolation and empowerment, suggests that for remote health workforces, commitment is aligned to workplace aspects that support their career aspirations

(e.g. professional isolation) and personal development (e.g. empowerment). Hence, management practices influence workforce sustainability where a SRHW is characterised by HRM policy choices that minimise dissatisfaction to reduce the negative aspects of working in geographically remote regions (e.g. concerns about personal safety); enabling the positive aspects to promote retention through job satisfaction.

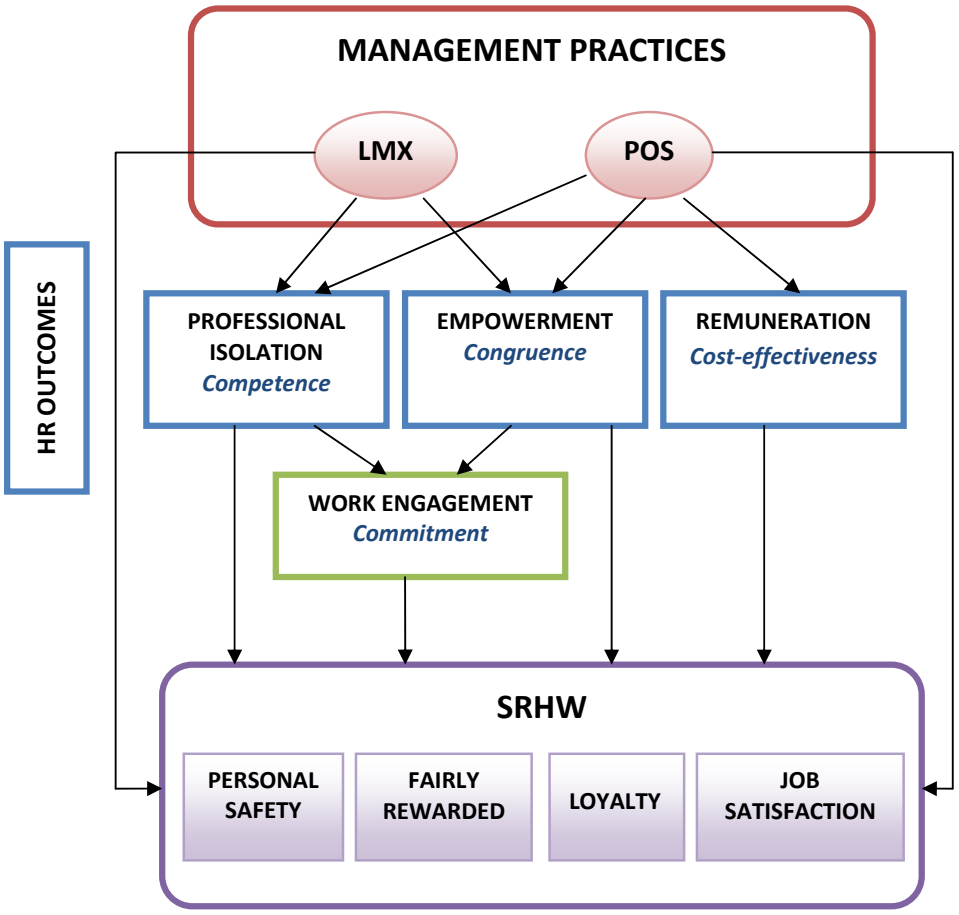


Figure 8.6: HRM Framework for sustainable remote health workforces (HRM-SRHW)

8.4 Integrated HRM Framework for sustainable remote health workforces

The HRM-SRHW was merged with the findings from the health domain literature, and then modified to include the findings discussed earlier in this chapter for the development of the *Integrated HRM Framework for sustainable remote health workforces* (*I*-HRM-SRHW) (Figure 8.6). This builds on the Theoretical Integrated HRM (TI-HRM) Framework (Figure 8.2) and includes the HRM Framework for sustainable remote health workforces (Figure 8.6) which as explained previously contains the key findings from this thesis. This complementary HRM approach to thinking about remote health workforce sustainability contributes to the evidence-base building on what is already known through the health literature and presents a valuable and new way for developing sustainable remote health workforces.

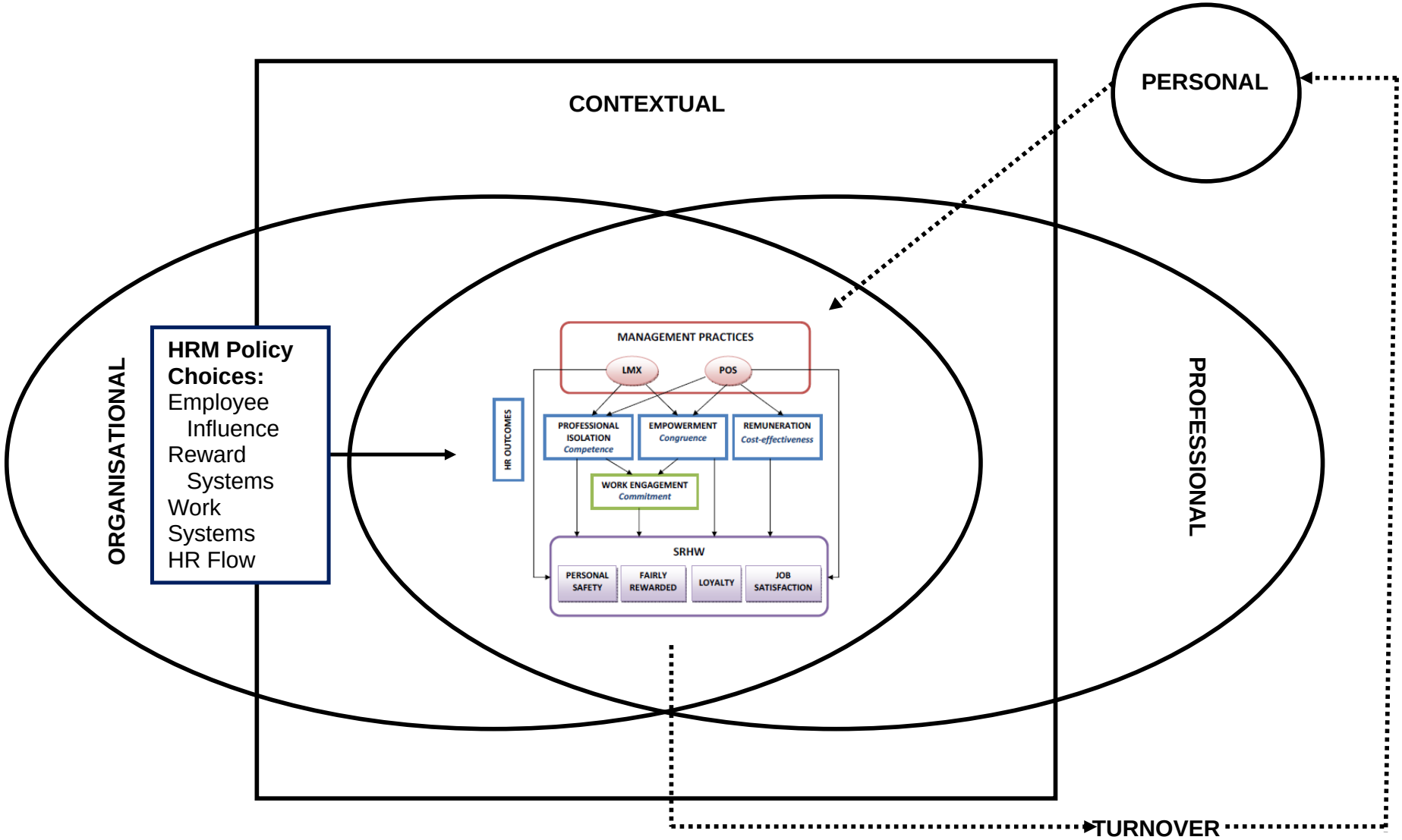


Figure 8.6: Integrated HRM Framework for sustainable remote health workforces (*I*-HRM-SRHW)

8.4.1 The *I*-HRM-SRHW: Policies into practices

Management practices

The practical application of the *I*-HRM-SRHW will differ depending on the type of health service or the geographically remote location; however, it provides a framework to guide the achievement of sustainable remote health workforces. The management practices, comprising of LMX and POS, were important aspects of remote health workforce sustainability, emphasising the influence of the employee-manager relationship (LMX) and the perception that the organisation is supportive of employees and their role in remote regions (POS). The quality of the employee-manager relationship can have a significant impact on workforce sustainability (Farr-Wharton et al., 2010; Onnis, 2014; Xerri, 2013).

In an article published in 'The Australian', Dr Ernest Hunter, a psychiatrist with more than 25 years experience working in remote communities, reflected on recent changes to health services saying that 'turnover of non-functioning (and sometimes functioning) agencies undermined corporate memory and institutional learning' referring to a paper published to document the history of a remote mental health service that had experienced relative stability when compared to similar mental health services operating in comparable contexts (Hunter et al., 2013; Hunter, 2015). Hunter (2105) explained that the paper was written 'to demonstrate what could be achieved with commitment and support' explaining that earlier research had indicated that 'to have meaningful impact in these settings requires more than having completed the core training and online modules to be a practitioner. It demands a relationship, and that has to do with temperament, trust and time.' Hunter's narrative that relationships are essential for the provision of health services is echoed in this thesis where relationships are essential for retention of health professionals in remote regions. Thus, relationships (LMX) and supportive employers (POS) can improve retention, which improves workforce stability, and access to health services. Furthermore, a more stable, consistent workforce can develop relationships with the local community and other health service providers which, according to the literature, improves the health outcomes for remote populations (Hunter et al., 2013; Santhanam et al., 2006). However, the connection between health workforce sustainability and health outcomes for remote populations may not be recognised widely, as Hunter (2015) concludes:

> *Well, my prediction is that regardless of the absolute number of workers allocated to remote communities, be they public service or NGO, turnover will remain high and the proportion of locum and "agency" rather than permanent staff will increase ... Regardless of discipline or history, skills and experience will be triumphed by allocative expedience; breadth (boxes ticked) over depth (of understanding and engagement). The cadre of management and administration will*

expand and decisions will be less informed by a nuanced understanding of local context and history.

In this last sentence Hunter (2015) reinforces the importance of local context which is consistent with the argument in this thesis that effective management practices (LMX and POS) must include localisation of HRM policies. Hunter predicts that turnover will remain high with increased transient work arrangements and less permanent staff, which is consistent with the discourse about future employment patterns in Australia (Holland et al., 2007; Sheller & Urry, 2006). However, this does not mean that the workforce cannot be sustainable; there can be flexibility with consistency, provided the policies and practices remain consistent with the needs of remote health professionals, remote communities and remote health service providers.

Localised policies and occupational commitment

During the last months of writing this thesis there were several events that highlighted the continued complexity of managing health professionals in Australia's remote regions reinforcing that the policies and practices remain at odds in remote regions. These events reinforce the necessity for localised polices that support remote health professionals commensurate with the environment in which they work. Sadly, in March 2016, Gayle Woodford, a Remote Area Nurse (RAN) in the remote community of Fregon (South Australia) was tragically murdered when attending a night call out. The tragedy was described as 'a "wake-up call" for the industry' with 'Mrs Woodford's death highlight[ing] the vulnerability of those who work alone in isolated areas' (Scopelianos, 2016). Then in May 2016, the media reported that teachers in the remote community of Aurukun (Far North Queensland) had been evacuated over safety concerns. Towards the end of the article, in large letters it stated 'Health workers to remain in Aurukun', going on to explain that 'all eight nurses and four local health workers based in Aurukun had expressed a willingness to stay' even though the teachers were evacuated, with the relevant Hospital and Health Service saying that 'all our staff have duress alarms' and 'CCTV cameras monitor the clinic from Weipa' (202 kms away) ("Aurukun teachers evacuated" 2016). On both of these occasions the respective Hospital and Health Services responded with descriptions about the way in which they will review policies or will afford support that will provide for the safety of their employees. The second article provides evidence of a common situation, where health professionals continue to work in potentially dangerous situations where they see that they, as health professionals, are needed. This emphasises the importance of localised policies congruent with the professional values and philosophies of health professionals working in remote regions, which may be at odds with city-centric management HRM policies.

This thesis proposes that localised management practices are essential for the achievement of a sustainable remote health workforce, and according to the findings of this thesis a SRHW includes aspects of personal safety. The geographically remote environment provides additional challenges for remote managers, illustrated in the tragic account of the events that transpired in the days and hours leading up to the sad passing of a remote nurse while on duty in Western Australia. The coroner found that the nurse passed in a tragic accident and did not make any recommendations for changes to the working conditions for remote area nurses in Western Australia arising from the accident; however, there were suggestions that fatigue may have contributed to her tragic death.

> *...nurses working at single nurse posts were rostered to work in the clinic between 8.00am to 5.00pm Monday to Friday. The clinic was closed for an hour for a lunchbreak, except for emergencies. Outside of these hours, the nurse was on call seven days per week for emergencies only within the town* (Linton, 2016, p.4).

This suggests that despite prescribed clinic hours the employer is aware that the nurse (single nurse post) will be required to work after hours being on call 24 hours a day, seven days a week. The circumstances leading up to the accident described the frequency and type of call outs she was attending to after clinic hours, with the employer explaining that records showing the amount of hours that she actually worked were incomplete because the HRM policy for an annual allowance for overtime made it unlikely that nurses recorded the actual hours of overtime worked.

> *The remote nurse had been on a call out on the Thursday night following a quad bike rollover and again on the Friday night due to a patient being severely burnt in a fire. Both patients had needed to be flown out by RFDS. On the Friday, RFDS could not fly there until the early hours of Saturday morning. As a result, she had not got to bed until about 3.00am that morning. At 5:45pm that evening she had a patient that needed to urgently be evacuated by RFDS; however, the airstrip was not operational at night, as a generator had failed two days before. She made arrangements with the RFDS to transport her patient to another airstrip and would meet RFDS there at approximately 8.00pm. The nurse at the clinic closer to the airstrip agreed to do a 'halfway meet' so that both clinics would only have no nursing coverage for about an hour, otherwise for one clinic it would be closed for much longer* (adapted from Linton, 2016, pp.9-11).

While this 'halfway meet' was against the employer's policy it was a necessary practice. The manager had draft site instructions to address this issue, the draft had been circulated for

feedback but was not formalised. The other remote nurse said that she was not aware of the written policy, but knew that 'halfway meets' were frowned upon by the employer. The manager had attempted to create policies; however, implementation appears to not have been effective. Regardless, the next comment suggests that the policy would be irrelevant as nursing practices will always put the health of the patient first and therefore, the remote context necessitates practices that are often incompatible with HRM policies, as described below:

> *I note that on this occasion, the halfway meet was only required because of a failure of the generator at the airstrip, which was not able to be quickly repaired. Even with the changes to the WACHS [Western Australia Country Health Service], policies about halfway meets and night driving, if a similar situation arose it would probably necessitate the nurse having to drive on the road at night. Events such as this will occur from time to time, given the remoteness of the region, and it is not a criticism of the WACHS to say that their policies will not be able to cover every eventuality and always guarantee a safe working environment for their remote area nurses* (Linton, 2016, p.22).

In the most tragic of circumstances, this Coroner's report suggests that the policies designed to provide a safe workplace for remote nurses will not be enacted if the needs of their patients necessitate actions that contravene these policies. Thus, it becomes clear that for policies to be effective they must be localised, provide for patient care and be flexible enough to promote safety in the complexity of geographically remote contexts. Furthermore, it supports the findings from this study where occupational commitment appears to take priority over organisational commitment. As such, if medical protocols take precedence over HRM policies, for HRM policies to translate into the intended work practices, effective management practices are important in policy development, interpretation and implementation. Considering the example above, if 'halfway meets' are inevitable, a policy from head office prohibiting them is less likely to be as effective as a localised policy that provides for their safety should circumstances necessitate a 'halfway meet'.

HR outcomes

HR outcomes moderate the influence of management practices; therefore, HRM policy choices focusing on the HR outcomes of professional isolation, empowerment and remuneration should be consistent with the goal of achieving a SRHW. In remote regions, this may be observed through increased access to professional development, professional supervision and mentoring, together with policies that promote autonomy and empower remote health professionals in their work. In addition, remuneration and incentives may contribute to increased attraction to remote

regions; although this thesis found that remuneration is not generally associated with improved workforce retention.

Work engagement

The thesis found that work engagement moderated the influence of management practices on the achievement of a SRHW, as such, situations similar to those described above may continue to be common. For remote health professionals, occupation commitment is likely to be demonstrated through observed HR outcomes such as work engagement, where engaged health professionals continue to place their commitment to their patients ahead of their commitment to their employer. The conflict between work engagement and management practices may manifest in situations where there are competing priorities (Baruch & Winkelmann-Gleed, 2002; Llewellyn, 2001). In these situations, the significance of HR outcomes of 'empowerment' and 'professional isolation' can be understood. HRM policy choices that lead to HR outcomes where the employee is empowered and has professional support systems in place, including effective management practices (LMX and POS) are preferable. Hence, management practices that accommodate occupational commitment (clinical practice) can ensure that health professionals work in a safe and competent manner through localised policies compatible with remote working conditions. Where policies and practices are congruent, remote health professional can thrive in a personally and professionally rewarding environment, and the employer can meet its obligations and responsibilities for both the employee and the patient.

8.5 Conclusion

This chapter sought to answer RQ4: *How can management practices support the sustainability of remote health workforces?* It benefitted from the MMR methodology discussed in this chapter which contributed to the research in this field by analysing the emergent themes from the empirical data and developing a framework suitable for remote health workforces. The complementary HRM approach contained in this thesis contributed to the evidence-base building on what is already known through the health literature; yet, it offered more than an alternative approach or a different perspective. This thesis, through its complementary approach, integrated the findings using a MMR methodology which resulted in the development of an Integrated HRM Framework for sustainable remote health workforces (*I*-HRM-SRHW).

This thesis proposes that management practices are the key to workforce sustainability in remote northern Australia. While management competence and effective management practices are crucial for workforce sustainability, few organisations advertised for remote managers with management qualifications and/or management experience. Yet these managers worked with health professionals in geographically isolated remote regions, where there is reduced access to

resources and infrastructure, limited access to professional development, and often a lack of personal and professional support. Finding suitable solutions to the challenges of workforce sustainability, will ultimately contribute to improving access to health services for people living in remote regions.

A SRHW is most likely achievable where management practices minimise dissatisfaction enabling the benefits of high job satisfaction to be experienced. Veteran remote health professionals predict that the distance between management and remote health professionals will widen with the direction in which current government and HRM policy are heading; however, others report that where this highlights the challenges and implications for not improving and localising management practices change is inevitable (Hunter, 2015; Wakerman & Davey, 2008). In their case study about the experiences of a RAN, Wakerman and Davey (2008, p.17) conclude that 'There is a new era of nurses coming ... the next generation is not going to put up with this ...' Firmly placed within a pragmatist paradigm, this thesis acknowledges these concerns, predictions and possibilities, and reiterates the need for these changes to be facilitated through effective localised management practices. A solutions-based approach that builds on the academic literature and proposes future evidence-based directions is essential. For this reason, this chapter concludes that the *I*-HRM-SRHW, which is tailored for remote health workforces, demonstrates how HRM policy choices and management practices can positively influence health workforce sustainability for health professionals working in remote regions of northern Australia.

8.6 Chapter Summary

- Using a MMR methodology for comparing and contrasting the quantitative and qualitative findings identified aspects of convergence and corroboration providing further evidence and support for the key findings of this thesis.

- The MMR methodology integrated the findings from this thesis and the literature (health and management) which resulted in the development of an *Integrated HRM Framework for a sustainable remote health workforce* (*I*-HRM-SRHW).

- The *I*-HRM-SRHW proposes that where effective management practices exist, the achievement of a SRHW is moderated by the following HR outcomes: professional isolation (competence), empowerment (congruence) and remuneration (cost-effectiveness), together with work engagement (commitment).

- The complementary HRM approach contained in this thesis contributed to the evidence-base building on what is already known through the health literature; yet offered more than an alternative approach or a different perspective.

- This thesis offers the *I*-HRM-SRHW as a tailored framework for remote health workforces.

Chapter Nine: Conclusion

9.0 Chapter overview

9.1 Introduction

9.2 Research Aim

9.2.1 Research Questions

9.3 Research contribution

9.4 Limitations

9.5 Recommendations

9.6 The geographically remote manager

9.7 Conclusion

9.0 Chapter overview

This final chapter explains how this thesis achieved the research aim by revisiting the findings for the four research questions. The chapter then highlights the most significant findings from this thesis, discusses the limitations of the thesis and then reports the recommendations arising from this thesis. This chapter then reports on the contribution that the thesis has made to this field of research, including areas where research gaps were identified in chapter one. Before the thesis concludes, a metaphorical comparison of the geographically remote manager and an icon of remote northern Australia, the boab tree, further illuminated the critical role of management practices for the achievement of sustainable remote health workforces.

9.1 Introduction

This thesis commenced with discussion about the challenges of providing health services in geographically remote northern Australia, particularly, the high levels of turnover experienced in remote regions at a time when WHO predicts global health workforce shortages (Hunter et al., 2013; Chisholm et al., 2011; Garnett et al., 2008; WHO, 2010). It proposed that an HRM approach to considering these workforce challenges could complement the health sector research and as such, this thesis particularly focused on the influence of management practices in the translation of HRM policies that support the sustainability of remote health workforces.

The subsequent chapters examined the literature and the perspectives of current remote health professionals, managers of remote health professionals and HR managers in organisations that employ remote health professionals. It was the combination of the MMR methodology and the Harvard Analytical Framework for HRM that guided the analysis and interpretation of the findings; together with the application of SET, PCT and Herzberg's motivation-hygiene theory providing theoretical support to the phenomenon observed in this thesis, the result was the development of an integrated framework: *I*-HRM-SRHW. This framework combined the findings from the health domain and management domain literature, and the findings from the empirical evidence reported in this thesis to reveal how management practices can influence the achievement of a sustainable remote health workforce, thus, achieving the research aim.

9.2 Research Aim

The aim of this thesis was to examine the influence of management practices on HRM policy choices that support the sustainability of health workforces in remote tropical northern Australia.

9.2.1 Research Questions

This thesis achieved the research aim by answering four research questions:

RQ1: What are the espoused HRM policies and how do they influence remote health workforce sustainability?

RQ2: What is a sustainable remote health workforce?

RQ3: How do HRM policy choices and management practices influence health workforce sustainability for health professionals working in remote regions of northern Australia?

RQ4: How can management practices support the sustainability of remote health workforces?

Chapters four to eight, contribute to achieving the research aim by addressing the research questions. In summary, chapter four answered RQ1 revealing that the espoused HRM policies appear to influence workforce sustainability in three ways: attracting health professionals; psychological contract formation; and localised management practices. Chapter five answered RQ2 identified three extant themes: people, practice and place. It revealing that the current remote health workforce believes that a SRHW is achievable; and that management practices influence the outcomes of many of the HRM policy choices that provide opportunities to improve retention. Chapter six and seven answered RQ3. Chapter six concluded that the implementation of HRM policies in remote regions influences workforce sustainability as each manager applies their own policy interpretation into their management practices. Chapter seven revealed that both HRM policy choices and supportive management practices are necessary for the achievement of long-term desirable organisational outcomes, concluding that without effective management practices, HRM policies and HR outcomes are less likely to support workforce sustainability.

Finally, chapter eight answered RQ4 by comparing and contrasting the findings from the qualitative and quantitative data using a mixed methods research methodology. The integration of the findings led to the development of the *Integrated HRM Framework for sustainable remote health workforces* which addressed the key challenges for remote health workforce sustainability identified through both the literature and the empirical evidence contained in this thesis.

The research aim was achieved as this thesis examined the influence of management practices on HRM policy choices that support the sustainability of health workforces in remote tropical northern Australia. Furthermore, this thesis reports four significant findings:

1) HR outcomes do not significantly influence the achievement of a sustainable remote health workforce (SRHW) without effective management practices (LMX and POS);
2) Management practices (LMX and POS) influence the achievement of a SRHW, where HR outcomes (professional isolation, empowerment, remuneration and work engagement) are present;
3) Occupational commitment may be more influential in improving retention than organisational commitment; and
4) The measure of a SRHW is better represented through Herzberg's motivation-hygiene theory than through job satisfaction and work engagement.

9.3 Research Contribution

This thesis achieved the theoretical, methodological and practical contribution objectives proposed in the research design (Figure 9.1). The theoretical and methodological contributions provided evidence where research gaps are known to exist. The practical contribution arises from the research methodology chosen for this thesis; the pragmatism paradigm necessitates a practical contribution to be true to the methodology and author's values in conducting this research.

Theoretical contribution

The theoretical contribution offered by this thesis is the Integrated HRM Framework for sustainable remote health workforces (*I*-HRM-SRHW). The *I*-HRM-SRHW is the outcome from this thesis and addressed a reported research gap by considering workforce issues through the provision of evidence-based research that could inform policy and management practices (Duckett, 2007).

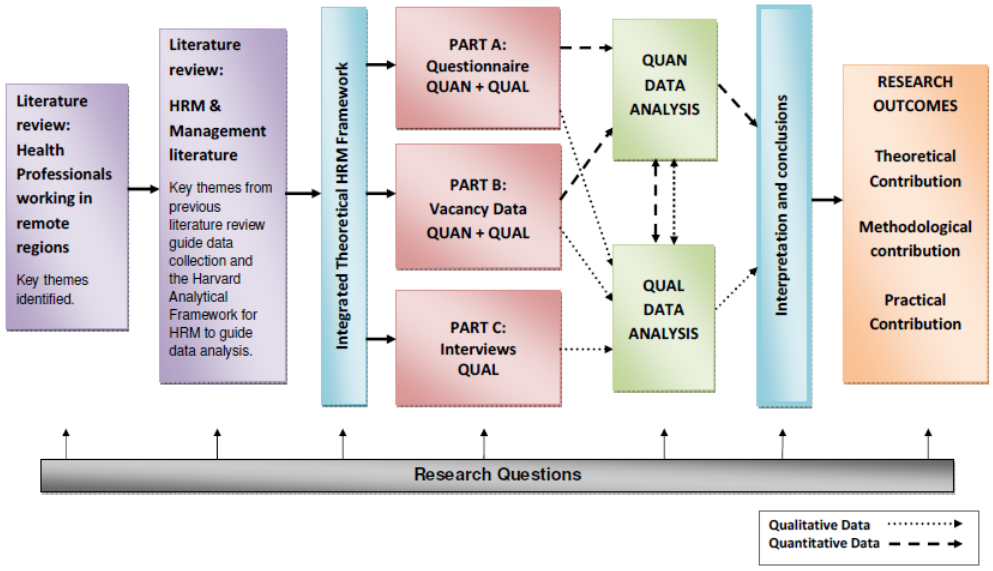


Figure 9.1: A Sustainable Remote Health Workforce: Mixed Methods Research Design

In chapter one, the research gaps identified through the literature included the observation that health literature is generally non-cognisant of an HRM approach. This thesis and the associated publications provide evidence of the benefits of the complementary approach used by this thesis and the contribution that HRM has to offer managers in remote regions where there is a high turnover of health professionals. Now, there is published literature investigating remote workforces using HRM theories and concepts which provide a richer understanding about the influence of management practices on remote health workforce sustainability.

In addition, the research gaps discussed in chapter one included the recognition that most research investigates turnover through those that have left, rather than retention through those that remain (Onnis & Pryce, 2016; WHO, 2010). This thesis contributed to the research in this field through a sample of participants who were working in remote regions or managing health professionals who were working in remote regions. Through gaining perspectives on the employment experience from those who were currently working in remote northern Australia, this thesis engaged a solutions-based approach that focused on the management practices that are contributing to retention, rather than examining the negative aspects of the experiences of those that left (Gorton, 2015; Wakerman & Humphreys, 2012).

The third known research gap towards which this thesis contributes evidence, is that few studies cross health disciplines (or professions) with most conducting research within professional boundaries (e.g. medical, nursing) (Buykx et al., 2010; Onnis & Pryce, 2016; WHO, 2010).

This thesis included the perspectives of remote health professionals from various health professions, including nursing, medical (GPs and specialists), Indigenous Health Workers (IHWs), allied health and dental; as such, aspects of workforce sustainability beyond the boundaries of a particular health profession contributed to the findings presented in this thesis. In addition, using an HRM approach to complement the health sector research provided another cross-disciplinary contribution that this thesis added to the research evidence.

Methodological contribution

This thesis makes a methodological contribution to the empirical evidence-base in two ways. Firstly, *Gill & Meyer (2011) reported that* the evidence about the relationship between HRM policies and practices is largely qualitative. Also, the literature revealed that the MMR methodology is a method less frequently used in management research (Johnson et al., 2007; Cameron, 2011). Therefore, this thesis' MMR methodology contributes evidence to known research gaps through the analyses of empirical data that provided both quantitative research evidence and evidence of the contribution that MMR methodologies can offer the field of management research.

Practical contribution

The pragmatism paradigm necessitated a practical contribution, as such, the Integrated HRM Framework for sustainable remote health workforces (*I*-HRM-SRHW) was offered. This framework could guide the future HRM policy and practice directions for remote health service providers. It provides evidence that can inform strategy, workforce planning, remuneration reviews, professional development, management development programs and recruitment strategies amongst other operational management practices, all of which influence workforce sustainability.

9.4 Limitations

Low Response Rate

The low response rate for the online questionnaire was a limitation for this thesis. The response rate of 21% was low which means that the findings may not be representative of all remote health professionals and therefore cannot be generalised. However, the response rate must be considered in context to understand that it was actually a good response rate for this population. Evans and Mathur (2005) reported that low participation rates were a disadvantage of online questionnaires, which is even more poignant in geographically remote areas where there is poor access to reliable internet services. Furthermore, medical professionals reportedly respond more positively to incentive-based research (Braithwaite et al., 2003). That said, Hemphill and Kulik (2011) only achieved a response rate of 27% from rural GPs using a 'best practice'

survey design that offered financial incentives for the completion of a paper-based survey, further reinforcing the difficulty in achieving high response rates for this population. While the low response rate was consistent with this type of research tool, particularly with participants from rural and remote regions, it was higher than other reported response rates, for example, the Australian Medical Association (AMA) reported a response rate of 13%, and Rural Doctors Association of Australia (RDAA) reported 13.5% for online questionnaires in rural Australia (AMA, 2007; RDAA, 2012).

Self-selection bias

There may have been a self-selection bias with health professionals interested in the topic more likely to participate (Evans & Mathur, 2005; Sax, Gilmartin & Bryant, 2003) or a non-response bias which refers to a potential bias where the 'respondents to a survey are different from those who did not respond in terms of demographic or attitudinal variables' (Sax et al., 2003, p.411). In studies with a low response rate, the potential self-selection bias and non-response bias mean that the findings are not generalisable. However, the findings were consistent with the literature, suggesting that the sample was adequate to provide a good indication of the current remote health professional's perspective.

Research Design

The qualitative research was more costly, in terms of time and expenses, and provided opportunities for potential bias as the researcher had personal contact with participants. In order to minimise bias and to improve reliability, two other researchers analysed randomly selected qualitative data samples. In addition, detailed notes were made during the coding phase to ensure that there was consistency in the coding, particularly where coding decisions were made, thus, improving internal consistency (e.g. Appendix G).

In contrast, the quantitative research methods were more cost-effective, less time consuming and fairly independent of researcher bias; therefore, generally considered to have higher credibility (Johnson & Onwuegbuzie, 2004, p.19). However, they were not free of researcher bias as the pre-determined categories, and style of questioning was influenced by the researcher.

The potential for bias was identified early and the research design sought to minimise how it would influence the findings through including quantitative data that prevented direct contact between the researcher and the potential participants; and the vacancy advertising data thus, minimising the researcher bias as far as practicable. In addition, many of the limitations common to qualitative and quantitative research were minimised through the MMR design; however, they are acknowledged as potential limitations.

Definition of 'remote'

The thesis clearly communicated that it sought the perspectives of current remote health professionals about the sustainability of remote health workforces; however, it did not define 'remote' in the questionnaire. While it is not believed to have negatively impacted the findings it is acknowledged as a limitation given the different interpretations of 'remote', particularly the differentiation between remote and rural (ABS, 2003).

Recruitment advertisements

The data provided information about what is included in recruitment advertisements and the types of employment conditions and incentives offered. Unfortunately, it was not possible to always know who the employer was as many recruitment Agencies advertised on behalf of employers. Furthermore, it was not possible to know whether every advertisement was for an actual vacancy, so it is not possible to know whether an increase in advertisements was merely an increased advertising effort or whether it was reflective of higher turnover.

Sample

Limitations included a small sample size for the quantitative questionnaire data; however, there was a satisfactory sample size (n=24) for the interviews with data saturation achieved (Liamputtong, 2009). There was a large sample size for the recruitment advertisements (n=3311) so while the sample size was small for one component the other two were satisfactory and the consistency in the findings suggest that this was not a concern.

Multi-collinearity

Multi-collinearity is possible where a high correlation is observed between variables. While multi-collinearity is inevitable in these types of studies; it can be a problem because it inflates the variance. Statistical analysis to determine the Variance Inflation Factor (VIF) suggested that multi-collinearity was not a serious concern for this dataset; however, it is acknowledged as a limitation for this study.

Reflexivity

A preconceived understanding of the remote context and remote health challenges guided the research approach and influenced the research design and methodology. In particular, the methodology chosen had the best possible chance of being effective in providing sufficient data for analysis and interpretation. In fact, it is unlikely that someone without these particular experiences would have approached the issue in the same manner. The knowledge and understanding that the author held about remote workplaces and the general culture of 'remote

health management' enhanced the ability of the author to engage with participants and the participating organisations.

Overall, the limitations of this thesis mean that these findings cannot be generalised; however, they do provide valuable insights for health service providers, policy makers, managers and HR professionals contemplating the challenges of workforce sustainability. Health workforce shortages necessitate the need for sensible approaches regarding the attraction and retention of health workforces (Onnis & Pryce, 2015; Wakerman & Humphreys, 2012; WHO, 2010).

9.5 Recommendations

This thesis revealed opportunities for further research in this area, as well as aspects of the thesis findings where further examination would be beneficial. The following six recommendations are offered:

Recommendation One

The quantitative data suggested that the moderating effect of work engagement may be explained through a commitment to their profession that was stronger than their commitment to their employer. Furthermore, analysis of the interview data highlighted the complexity of the clinician-manager role, particularly where there are inadequate resources, perceived manager incompetence and reduced access to professional development. In addition, the current health professionals gave reasons for choosing to work in remote regions that were professional reasons yet few recruitment advertisements contained espoused HRM policy about the professional benefits (e.g. scope of practice) of remote work. As such, it is proposed that in remote regions where they are depending on a largely contingent, mobile workforce it would be worth investigating further into the effects of organisational commitment and occupational commitment on voluntary turnover. This is particularly prudent as current workforce shortages and anticipated global workforce shortages may require organisations to find alternatives to financial rewards to attract and retain competent health professionals in remote regions.

Recommendation Two

Further research into the question *My job is challenging* may be warranted for this particular workforce, more particularly the term *challenging* should be explored further to investigate whether the wording of the question contributed to the results reported in this thesis or whether it was linked to an aspect of this particular sample population (e.g. cross-disciplinary, age), particularly as Schaufeli et al. (2006) reported a weak relationship with age and this same question in their study.

Recommendation Three

The recruitment advertisements provided information about the content of the recruitment advertising; however, they did not provide insight into the effectiveness of the advertising in converting potential applicants to employees. Further research tracking the recruitment process from advertisement through to the length of service with the organisation would provide additional insight into how organisations can improve retention through their recruitment advertising.

Recommendation Four

While this study does not report any statistically significant correlation between the reason for choosing to work in a remote area, expectations and other variables; there were some areas worth highlighting for further investigation. For example, none of the thirty-four male health professionals reported that the remote region was already 'home', that they had previous experience working in remote regions or that they were raised in a rural/remote region. Furthermore, only one male health professional reported that they moved to the remote region for their partner's work. These findings suggest that the majority of the male health professionals have chosen to move to a remote region for work whereas some of the female health professionals (16%) were already in the remote region or moved there for their partner's work. Further investigation into these sub-groups of health professionals may provide further understanding about workforce sustainability.

Recommendation Five

This thesis found that management practices influence health workforce sustainability; therefore, it would be sensible to investigate further the career characteristics of remote managers. For example, it is suggested that future research examine the pathways for remote health professionals into remote management roles and the availability of training and professional support.

Recommendation Six

This thesis found that effective management practices should include localising policies so that they are suitable for geographically remote regions. Further investigation into the localisation of policies would be beneficial, especially an examination of the HRM policies to identify where localisation has the largest influence on the sustainability of remote health workforces.

9.6 The geographically remote manager

This thesis commenced with a poem, *A fence or an ambulance?*; and, would not be complete without painting a contextual picture of the remote manager. The choice to build the fence for protection or to replace those that have fallen is the responsibility of management; however, this thesis suggests that a fence would be more likely where management practices (LMX and POS) promote workforce sustainability and reduce avoidable turnover. A pertinent analogy for the remote manager is the boab tree, as illustrated in the following:

> *The iconic boab trees of the Kimberley, Western Australia, symbolise strength, resilience and the interdependence of various ecologies; characteristics synonymous with leadership. Extremely resilient to harsh and changing environmental conditions... Despite external challenges, the baobab tree ... can adapt and thrive by living in mutually beneficial ways with its social and environmental ecologies.*
>
> (Zuber-Skerritt, Wood & Louw, 2015)

The baobab, more commonly known in Australian as the 'boab tree', is one of the world's oldest trees (Figure 9.2). In many ways, the geographically remote manager can be compared with the boab, for it is their resilience and their strength that often sees them thrive in the harshness of remote Australia.

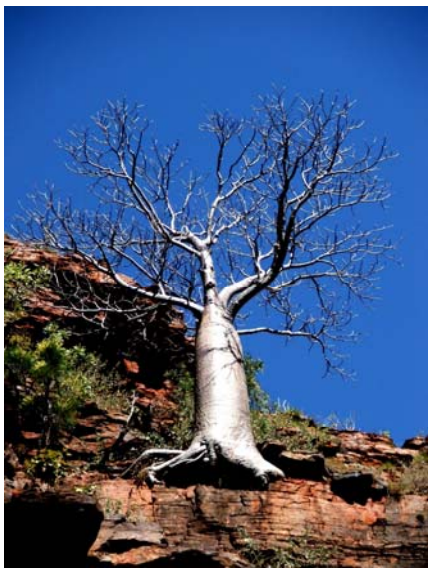


Figure 9.2: The Boab Tree (Baobab) (Onnis, 2008)

As depicted in Figure 9.2, even in the most precarious of geographical environments, the boab tree can thrive, and so too can the remote health manager. Boab trees 'grow deep roots for many years, only spreading their limbs above ground once they are firmly established' (Zuber-Skerritt et al., 2015, p.90). Similarly, the remote manager must establish themselves and have a solid foundation before they can grow and perform to the best of their abilities in a geographically remote region. Nature is best in balance; so too are remote managers.

The boab tree provides a metaphorical image of the remote manager. This thesis proposes that the manager is the key to achieving workforce sustainability and that management practices, including localised HRM policies, are critical in improving retention. Therefore, ensuring that appropriately skilled, experienced managers are supported to both personally and professionally develop in geographically remote regions is essential.

9.7 Conclusion

The research aim for this thesis was achieved through answering the research questions. Therefore, this thesis provides empirical evidence to support the argument that the translation of HRM policies into practices that support a sustainable remote health workforce are influenced by management practices.

It was evident that while management competence and effective management practices are crucial for workforce sustainability, few organisations advertise for remote managers with management qualifications and/or management experience. Yet these managers work with health professionals in geographically isolated remote regions, where there is reduced access to resources and infrastructure, limited access to professional development, and often a lack of personal and professional support. It is not clear why organisations do not do more to support the remote health professionals who are currently working in remote regions. It is perhaps because organisations do not understand the challenges of working in remote regions or it may be because the managers in the remote regions do not have the experience, expertise, resources, or the professional and personal support needed to effectively manage remote health workforces.

In conclusion, this thesis provides evidence that management practices are crucial for the achievement of sustainable remote health workforces and sustainable remote health workforces contribute to improving access to health services for remote populations. In remote regions where voluntary turnover is high, a research approach integrating HRM and health sector research was important for examining the influence of management practices on remote health

workforce sustainability. While workforce attraction and recruitment are essential to meet remote workforce needs, for organisations facing workforce shortages it makes better sense to support and invest in the current workforce, that is, those currently working in remote regions who know the environment, the organisation and the community. Hence, focusing attention on supporting and developing health professionals and managers currently in remote regions is more likely to improve workforce sustainability. These health professionals and managers understand the remote context, they are better positioned to interpret and localise HRM policies, and they are familiar with the context in which these policies are to be implemented. Hence, they are best positioned to promoting a sustainable remote health workforce.

References

Alderfer, C. P. (1969). An empirical test of a new theory of human needs. *Organizational Behavior and Human Performance, 4*(2), 142-175. doi: 10.1016/0030-5073(69)90004-X

Allan, J., & Ball, P. (2008). Developing a competitive advantage: considerations from Australia for the recruitment and retention of rural and remote primary health workers. *Australian Journal of Primary Health, 14*(1), 106-112. doi: 10.1071/PY08014

Alvesson, M. (2013). *Understanding organizational culture*. London, England: Sage Publications.

Anderson, E., Griffin, G., & Teicher, T. (2002). New public management and industrial relations in the Australian Public Service: An overview. *New Zealand Journal of Industrial Relations, 27*(1), 13–31.

Anderson, M. W. (2004). The metrics of workforce planning. *Public Personnel Management, 33*(4), 363-378.

Arnolds, C. A., & Christo, B. (2002). Compensation, esteem valence and job performance: an empirical assessment of Alderfer's ERG theory. *The International Journal of Human Resource Management*, *13*(4), 697-719. Doi: 10.1080/09585190210125868

Aselage, J., & Eisenberger, R. (2003). Perceived organizational support and psychological contracts: a theoretical integration. *Journal of Organizational Behavior, 24*(5), 491-509. doi: 10.1002/job.211

Atkins, S., Lewin, S., Smith, H., Engel, M., Fretheim, A., & Volmink, J. (2008). Conducting a meta-ethnography of qualitative literature: Lessons learnt. *BMC Medical Research Methodology, 8*(21).

Aurukun teachers evalucated again over safety concerns. (2016, May 26). ABC News. Retrieved from http://www.abc.net.au/news

Australian Bureau of Statistics (ABS). (2003). *ASGC Remoteness Classification: Purpose and Use* (Census Paper No. 03/01). Canberra, Australia: ABS. Retrieved from http://www.abs.gov.au

Australian Bureau of Statistics (ABS). (2006). *Australian Standard Geographical Classification (ASGC)*. Canberra, Australia: ABS. Retrieved from http://www.abs.gov.au

Australian Bureau of Statistics (ABS). (2011). *Australian Statistical Geography Standard (ASGS): Volume 5 - Remoteness Structure*. Canberra, Australia: ABS. Retrieved from http://www.abs.gov.au

Australian Government. (2010). *A National Health and Hospitals Network: Further Investments in Australia's Health*. Canberra, Australia: CanPrint Communications Pty Ltd. Retrieved from http://www.budget.gov.au/

Australian Government Department of Health and Ageing. (2008). *Report on the Audit of Health Workforce in Rural and Regional Australia.* Canberra, Australia. Retrieved from www.health.gov.au

Australian Health Ministers' Conference. (2004). *National Health Workforce Strategic Framework*. Sydney, Australia. Retrieved from http://www.ahwo.gov.au

Australian Human Rights Commission. (n.d.). *Questions and Answers about Aboriginal & Torres Strait Islander Peoples*, http://www.humanrights.gov.au/publications/questions-and-answers-about-aboriginal-torres-strait-islander-peoples

Australian Institute of Health and Welfare (AIHW). (2012). *Australia's health 2012. Australia's health series* (No.13. Cat. no. AUS 156). Canberra, Australia: AIHW. Retrieved from http://www.aihw.gov.au

Australian Institute of Health and Welfare (AIHW). (2013). *Healthy for Life - Aboriginal Community Controlled Health Services Report Card*. Canberra, Australia: AIHW. Retrieved from http://www.aihw.gov.au

Australian Institute of Health & Welfare (AIHW). (2016). *Pharmacy Workforce Data Tables.* Canberra, Australia: AIHW. Retrieved from http://www.aihw.gov.au/workforce

Australian Medical Association (AMA). (2007). *Rural Health Issues Survey*. Retrieved from http://www.ama.com.au

Baard, P. P., Deci, E. L., & Ryan, R. M. (2004). Intrinsic Need Satisfaction: A Motivational Basis of Performance and Well-Being in Two Work Settings. *Journal of Applied Social Psychology*, *34*(10), 2045-2068. Doi: 10.1111/j.1559-1816.2004.tb02690

Bal, P., De Lange, A., Jansen, P., & Van der Velde, M. (2008). Psychological contract breach and job attitudes: A meta-analysis of age as a moderator. *Journal of Vocational Behaviour, 72*(1), 143-158. doi: 10.1016/jjvb.2007.10.005

Balducci, C., Fraccaroli, F., & Schaufeli, W. B. (2010). Psychometric Properties of the Italian Version of the Utrecht Work Engagement Scale (UWES-9) A Cross-Cultural Analysis. *European Journal of Psychological Assessment*, *26*(2), 143-149. doi: 10.1027/1015-5759/a000020

Bartlett, K. R. (2001). The Relationship between Training and Organizational Commitment: A Study in the Health Care Field. *Human Resource Development Quarterly*, *12*(4), 335-352.

Bartram, T. (2011). Employee management systems and organizational contexts: a population ecology approach. *Management Research Review, 34*(6), 663-677. doi: 10.1108/01409171111136194

Baruch, Y., & Winkelmann-Gleed, A. (2002). Multiple Commitments: A Conceptual Framework and Empirical Investigation in a Community Health Service Trust. *British Journal of Management, 13*(4), 337-357. doi: 10.1111/1467-8551.00250

Bateman, T., & Strasser, S. (1984). A longitudinal analysis of the antecedents of organizational commitment. *Academy of Management Journal, 27*(1), 95-112.

Battye, K. M., & McTaggart, K. (2003). Development of a model for sustainable delivery of outreach allied health services to remote north-west Queensland, Australia. *Rural and Remote Health, 3*(3), 194-207. Retrieved from http://www.rrh.org.au/articles/showarticlenew.asp?ArticleID=194

Baum, M., & Kabst, R. (2014). The Effectiveness of Recruitment Advertisements and Recruitment Websites: Indirect and Interactive Effects on Applicant Attraction. *Human Resource Management, 53*(3), 353-378. doi :10.1002/hrm.21571

Bazeley, P. (2009), Editorial: Integrating Data Analyses in Mixed Methods Research. *Journal of Mixed Methods Research, 3*, 203-207. doi :10.1177/1558689809334443

Becker, B., & Gerhart, B. (1996). The Impact of Human Resource Management on Organizational Performance: Progress and Prospects. *The Academy of Management Journal, 39*(4), 779-801.

Beer, M., Spector, B., Lawrence, P. R., Mills, D. Q., & Walton, R. E. (1984). *Managing Human Assets*. New York: The Free Press.

Bénabou, R., & Tirole, J. (2003). Intrinsic and Extrinsic Motivation. *The Review of Economic Studies, 70*(3), 489-520.

Bent, A. (1999). Allied health in Central Australia: challenges and rewards in remote area practice. *Australian Journal of Physiotherapy, 45*(3), 203-212. doi: 10.1016/S0004-9514(14)60351-2

Bhattacharya, M., & Wright, P. (2005). Managing human assets in an uncertain world: applying real options theory to HRM. *International Journal of Human Resource Management, 16*(6), 929-948. doi: 10.1080/09585190500120574

Birks, M., Mills, J., Francis, K., Coyle, M., Davis, J., & Jones, J. (2010). Models of health service delivery in remote or isolated areas of Queensland: a multiple case study. *Australian Journal of Advanced Nursing, 28*(1), 25-34.

Blau, G. (2003). Testing for a four-dimensional structure of occupational commitment. *Journal of Occupational and Organizational Psychology*, *76*, 469-488.

Blau, G. (2007). Does a corresponding set of variables for explaining voluntary organizational turnover transfer to explaining voluntary occupational turnover? *Journal of Vocational Behavior, 70*(1), 135-148. doi: 10.1016/j.jvb.2006.07.007

Blau, G. (2009). Can a four-dimensional model of occupational commitment help to explain intent to leave one's occupation? *Career Development International*, *14*(2), 116-132. doi: 10.1108/13620430910950737

Bolton, S. (2003). Multiple roles? Nurses as managers in the NHS. *The International Journal of Public Sector Management, 16*(2), 122-130. doi: 10.1108/09513550310467975

Bowen, D., Ledford, G., & Nathan, B. (1991). Hiring for the organization, not the job. *Academy of Management Executive*, *5*(4), 35-51.

Braithwaite, D., Emery, J., de Lusignan, S., & Sutton, S. (2003). Using the Internet to conduct surveys of health professionals: a valid alternative? *Family Practice, 20*, 545-551.

Braithwaite, J. (2004). An empirically-based model for clinician-managers' behavioural routines. *Journal of Health Organization and Management*, *18*(4), 240-261. doi: 10.1108/14777260410554269

Brannen, J. (2009). Mixed Methods for Novice Researchers: Reflections and Themes. *International Journal of Multiple Research Approaches, 3*(1), 8-12.

Briggs, K. K., Lysholm, J., Tegner, Y., Rodkey, W. G., Kocher, M. S., & Steadman, J. R. (2009). The Reliability, Validity, and Responsiveness of the Lysholm Score and Tegner Activity Scale for Anterior Cruciate Ligament Injuries of the Knee. *The American Journal of Sports Medicine*, *37*(5), 890-897. doi: 10.1177/0363546508330143

Bryman, A. (2007). Barriers to Integrating Quantitative and Qualitative Research. *Journal of Mixed Methods Research, 1,* 8-22. doi: 10.1177/2345678906290531

Brunetto, Y., & Farr-Wharton, R. (2002). Using social identity theory to explain the job satisfaction of public sector employees. *International Journal of Public Sector Management, 15*(7), 534-551. doi: 10.1108/09513550210448571

Brunetto, Y., Farr-Wharton, R., & Shacklock, K. (2011). Using the Harvard HRM model to conceptualise the impact of changes to supervision upon HRM outcomes for different types of Australian public sector employees. *The International Journal of Human Resource Management*, *22*(3), 553-573. Doi:10.1080/09585192.2011.543633

Brunetto, Y., Xerri, M., Shriberg, A., Farr-Wharton, R., Shacklock, K., Newman, S., & Dienger, J. (2013). The impact of workplace relationships on engagement, well-being, commitment and turnover for nurses in Australia and the USA. *Journal of advanced nursing,* 69(12), 2786-2799. doi: 10.1111/jan.12165

Brunetto, Y., Xerri, M., Trinchero, E., Farr-Wharton, R., Shacklock, K., & Borgonovi, E. (2016a). Public–Private Sector Comparisons of Nurses' Work Harassment Using Set: Italy and Australia. *Public Management Review*, *18*(10), 1479-1503, doi: 10.1080/14719037.2015.1114136

Brunetto, Y., Rodwell, J., Shacklock, K, Farr-Wharton, R., & Demir, D. (2016b). The impact of individual and organizational resources on nurse outcomes and intent to quit. *Journal of Advanced Nursing* (online). doi:10.1111/jan.13081

Buckingham, M., & Coffman, C. (1999). *First, break all the rules. What the Worlds Greatest Managers do Differently.* London, UK: Simon & Schuster.

Budhwar, P., & Debrah, Y. (2001). Rethinking comparative and cross-national human resource management research. *International Journal of Human Resource Management, 12*(3), 497-515. doi: 10.1080/09585190010026266

Buykx, P., Humphreys, J., Wakerman, J., & Pashen, D. (2010). Systematic review of effective retention incentives for health workers in rural and remote areas: towards evidence-based policy. *Australian Journal of Rural Health, 18*, 102-109.

Caldwell, R. (2003). The Changing Roles of Personnel Managers: Old Ambiguities, New Uncertainties. *Journal of Management Studies 40*(4), 983-1004. doi: 10.1111/1467-6486.00367

Cameron, R. (2011). Mixed methods in business and management: a call to the "first generation". *Journal of Management & Organization, 17*(2), 245-267. doi: 10.5172/jmo.2011.17.2.245

Cameron, R., & Molina-Azorin, F. (2011). Mixed methods research in business and management. *International Journal of Multiple Research Approaches, 5*(3), 286-289.

Cameron, P., Este, C., & Worthington, C. (2012). Professional, personal and community: 3 domains of physician retention in rural communities. *Canadian journal of rural medicine, 17*(2), 47-55.

Campbell, N., McAllister, L., & Eley, D. (2012). The influence of motivation in recruitment and retention of rural and remote allied health professionals: a literature review. *Rural and Remote Health*, *12*, 1900 (online). Retrieved from http://www.rrh.org.au/articles/showarticlenew.asp?ArticleID=1900

Campbell, J., Dussault, G., Buchan, J., Pozo-Martin, F., Guerra Arias, M., Leone, C., Siyam, A., & Cometto, G. (2013). A universal truth: no health without a workforce. Geneva: WHO Press. Retrieved from http://www.who.int/workforcealliance/knowledge/resources/GHWA_AUniversalTruthReport.pdf

Campion, J., Hunter, E., & Skalicky, J. (2007). Improving Mental Health Skills of Health Workers in Indigenous Communities in Northern Queensland. *Aboriginal & Islander Health Worker Journal, 31*(6), 12-15.

Carey, T. A. (2013). A qualitative study of a social and emotional well-being service for a remote Indigenous Australian community: implications for access, effectiveness, and sustainability. *BMC Health Services Research, 13*, 80. Retrieved from http://bmchealthservres.biomedcentral.com/articles/10.1186/1472-6963-13-80

Carlson J. (2010). Avoiding Traps in Member Checking. *The Qualitative Report, 15*(5), 1102-1113. Retrieved from http://nsuworks.nova.edu/tqr/vol15/iss5/4

Chalofsky, N. E. (2010). *Meaningful Workplaces: Integrating the Individual and the Organization*: Jossey-Bass.

Chang, A., Chiang, H., & Han, T. (2012). A multilevel investigation of relationships among brand-centered HRM, brand psychological ownership, brand citizenship behaviors and customer satisfaction. *European Journal of Marketing*, *46*(5) 626-662.

Chapman, D. S., Uggerslev, K. L., Carroll, S. A., Piasentin, K. A., & Jones, D. A. (2005). Applicant Attraction to Organizations and Job Choice: A Meta-Analytic Review of the Correlates of Recruiting Outcomes. *Journal of Applied Psychology*, *90*(5), 928-944. doi: 10.1037/0021-9010.90.5.928

Chisholm, M., Russell, D., & Humphreys, J. (2011). Measuring rural allied health workforce turnover and retention: what are the patterns, determinants and costs? *The Australian Journal of Rural Health, 19*(2), 81-88. doi: 10.1111/j.1440-1584.2011.01188.x

Cho, Y. J., & Perry, J. L. (2012). Intrinsic Motivation and Employee Attitudes: Role of Managerial Trustworthiness, Goal Directedness, and Extrinsic Reward Expectancy. *Review of Public Personnel Administration, 32*(4), 382-406. doi: 10.1177/0734371X11421495

Coakes, S. J. (2013). *SPSS: analysis without anguish: version 20 for Windows*. Milton, QLD: John Wiley & Sons Australia Ltd.

Cohen, A., & Avrahami, A. (2006). The Relationship between Individualism, Collectivism, the Perception of Justice, Demographic Characteristics and Organisational Citizenship Behaviour. *The Service Industries Journal*, *26*(8), 889-901. doi: 10.1080/02642060601011707

Collins, C. J., & Stevens, C. K. (2002). The Relationship Between Early Recruitment-Related Activities and the Application Decisions of New Labor-Market Entrants: A Brand Equity Approach to Recruitment. *Journal of Applied Psychology, 87*(6), 1121-1133. doi: 10.1037/0021-9010.87.6.1121

Collins, K., Onwuegbuzie, A., & Sutton, I. (2006). A Model Incorporating the Rationale and Purpose for Conducting Mixed-Methods Research in Special Education and beyond. *Learning Disabilities: A Contemporary Journal, 4*(1), 67-100.

Comrey, A. L., & Lee, H. B. (2013). *A First Course in Factor Analysis* (2nd ed.). London, UK: Taylor and Francis.

Coyle-Shapiro, J., & Kessler, I. (2000). Consequences Of The Psychological Contract For The Employment Relationship: A Large Scale Survey. *Journal of Management Studies*, *37*(7), 903-930. doi: 10.1111/1467-6486.00210

Cramer, J. H. (2006). Amorphous practice: nursing in a remote Indigenous community of Australia. *Contemporary Nurse: A Journal for the Australian Nursing Profession, 22*(2), 191-202. doi: 10.5172/conu.2006.22.2.191.

Creswell, J. W. (1998). *Qualitative inquiry and research design: choosing among five traditions.* Thousand Oaks, CA: Sage Publications.

Creswell, J. W., & Plano Clark, V. L. (2007). *Designing and conducting mixed methods research.* Thousand Oaks, CA: Sage Publications.

Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (3rd ed). Los Angeles: Sage Publications Inc.

Cropanzano, R., & Mitchell, M. (2005). Social Exchange Theory: An Interdisciplinary Review. *Journal of Management, 31*(6), 874-900. doi: 10.1177/0149206305279602

Cullen, J. (2004). Identifying sectoral management cultures through recruitment advertising. *Leadership & Organization Development Journal*, *25*(3), 279-291.

Cullinane, N., & Dundon, T. (2006). The psychological contract: A critical review. *International Journal of Management Reviews, 8*(2), 113-129. doi: 10.1111/j.1468-2370.2006.00123.x

Cutchin, M. P. (1997). Community and self: concepts for rural physician integration and retention. *Social Science & Medicine, 44*(11), 1661-1674. doi: 10.1016/S0277-9536(96)00275-4

De Cieri, H., Kramar, R., Noe, R., Hollenbeck, J., Gerhart, B., & Wright, P. M. (2004). *Human Resource Management in Australia: strategy, people, performance.* Macquarie Park, Australia: McGraw Hill Australia Pty Ltd.

De Cotiis, T. A., & Summers, T. P. (1987). A path analysis of a model of the antecedents and consequences of organizational commitment. *Human Relations, 40*(7), 445-470.

De Cuyper, N., De Jong, J., De Witte, H., Isaksson, K., Rigotti, T., & Schalk, R. (2008). Literature review of theory and research on the psychological impact of temporary employment: Towards a conceptual model. *International Journal of Management Reviews*, *10*(1), 25-51. doi: 10.1111/j.1468-2370.2007.00221.x

De Gieter, S., & Hofmans, J. (2015). How reward satisfaction affects employees' turnover intentions and performance: an individual differences approach. *Human Resource Management Journal, 25*(2), 200-216. doi: 10.1111/1748-8583.12072

de Saint-Exupéry, A. (2008). *The Little Prince*. Melbourne, Australia: Brolga Publishing.

Deci, E. L. (1972). Intrinsic motivation, extrinsic reinforcement, and inequity. *Journal of personality and social psychology, 22*(1), 113-120. doi: 10.1037/h0032355

Denscombe, M. (2008). Communities of Practice: A Research Paradigm for the Mixed Methods Approach. *Journal of Mixed Methods Research 2*(3), 270-283. doi: 10.1177/1558689808316807

Devine, S. (2006). Perceptions of occupational therapists practising in rural Australia: A graduate perspective. *Australian Occupational Therapy Journal*, *53*(3), 205-210. doi: 10.1111/j.1440-1630.2006.00561.x.

Dolea, C., Stormont, L., & Braichet, J. (2010). Evaluated strategies to increase attraction and retention of health workers in remote and rural areas. *Bulletin World Health Organisation*, 88, 379-385.

Draper, G., Unwin, E., Serafino, S., Somerford, P., & Price, S. (2005). *Health Measures 2005: A report on the health of the people of Western Australia*. Perth, Australia: Department of Health WA. Retrieved from https://www.health.wa.gov.au

DuBois, C. L., & Dubois, D. A. (2012). Strategic HRM as social design for environmental sustainability in organization. *Human Resource Management, 51*(6), 799-826. doi: 10.1002/hrm.21504

Duckett, S. J. (2007). *The Australian Health Care System,* (3rd ed.). Australia: Oxford University Press.

Dunbar, J. A., Hickie, I. B., Wakerman, J., & Reddy, P. (2007). New money for mental health: will it make things better for rural and remote Australia? *The Medical Journal of Australia, 186*(11), 587-589.

Eisenberger, R., Fasolo, P., & Davis-LaMastro, V. (1990). Perceived organizational support and employee diligence, commitment, and innovation. *Journal of Applied Psychology*, 75, 51–59.

Ellonen, R., Blomqvist, K., & Puumlainen. (2008). The role of trust in organisational innovativeness. *European Journal of Innovation Management*, *11*(2), 160-181. doi: 10.1108/14601060810869848

Epitropaki, O., & Martin, R. (1999), The Impact of Relational Demography on the Quality of Leader –Member Exchanges and Employees Work Attitudes and Well-Being. *Journal of Occupational and Psychology*, *72*, 237– 240.

Evans, J., & Mathur, A. (2005). The value of online surveys. *Internet Research*, *15*(2), 195-219. doi: 10.1108/10662240510590360

Fairburn, J. A., & Malcomson, J. M. (2001). Performance, Promotion, and the Peter Principle. *The Review of Economic Studies, 68*(1), 45-66. doi: 10.1111/1467-937X.00159

Farr-Wharton, R., Shacklock, K., & Brunetto, Y. (2010). The impact of supervisor-subordinate relationships on morale: implications for public and private sector nurses' commitment. *Human Resource Management Journal, 20*(2), 206-225. doi: 10.1111/j.1748-8583.2009.00117.x

Feilzer, M. Y. (2010). Doing Mixed Methods Research Pragmatically: Implications for the Rediscovery of Pragmatism as a Research Paradigm. *Journal of Mixed Methods Research, 4*(1) 6-16. doi: 10.1177/1558689809349691

Fisher, K. R., & Fraser, J. D. (2010). Rural Health Career Pathways: Research Themes in Recruitment and Retention. *Australian Health Review, 34*(3), 292-296. doi: 10.1071/AH09751.

Francis, K. (2005). Health and health practice in rural Australia: Where are we, where to from here? *Online Journal of Rural Nursing and Health Care, 5*(1).

Freyens, B. P. (2010). Managing skill shortages in the Australian public sector: issues and perspectives. *Asia PacificJournal of Human Resources, 48*(3), 262-286.

Frost, R. (1920). *The Road not taken.* Retrieved from http://www.bartleby.com/119/1.html

Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior, 26*(4), 331-362. doi: 10.1002/job.322

Gambino, K. M. (2010). Motivation for entry, occupational commitment and intent to remain: a survey regarding Registered Nurse retention. *Journal of Advanced Nursing, 66*(11), 2532–2541. doi: 10.1111/j.1365-2648.2010.05426.x

Gardiner, M., Sexton, R., Durbridge, M., & Garrard, K. (2005). The role of psychological well-being in retaining rural general practitioners. *Australian Journal of Rural Health, 13*(3), 149-155.

Garnett, S., Coe, K., Golebiowska, K., Walsh, H., Zander, K., Guthridge, S., Li, S., & Malyon R. (2008). *Attracting and Keeping Nursing Professionals in an Environment of Chronic Labour Shortage: A Study of Mobility among Nurses and Midwives in the Northern Territory of Australia*. Darwin, Australia: Charles Darwin University Press. Retrieved from http://digitallibrary.health.nt.gov.au/dspace/bitstream/10137/228/1/nurse_report.pdf

Giancola, F. L. (2011). Examining the Job Itself as a Source of Employee Motivation. *Compensation & Benefits Review, 43*(1), 23-29. doi: 10.1177/0886368710390493

Gill, C., & Meyer, D. (2011). The role and impact of HRM policy. *International Journal of Organizational Analysis, 19*(1), 5-28. doi: 10.1108/19348831111121286

Gorton, S. (2015). Who paints the picture? Images of health professions in rural and remote student resources. *Rural and Remote health, 15*(3), 3423 (online). Retrieved from http://www.rrh.org.au/articles/showarticlenew.asp?ArticleID=3423

Gould-Williams, J. (2004). The Effects of 'High Commitment' HRM Practices on Employee Attitude: The Views of Public Sector Workers. *Public Administration, 82*(1), 63-81. doi: 10.1111/j.0033-3298.2004.00383.x

Gould-Williams, J., & Davies, F. (2005). Using social exchange theory to predict the effects of HRM practice on employee outcomes. *Public Management Review, 7*(1), 1-24. doi: 10.1080/1471903042000339392

Green, J., & Dalton, B. (2007). Values and Virtues or Qualifications and Experience?: An Analysis of Non-profit Recruitment Advertising in Australia. *Employment Relations Record, 7*(2).

Greenwood, G., & Cheers, B. (2002). Doctors and nurses in outback Australia: living with bush initiatives. *Rural and Remote Health, 2*(1), 98. Retrieved from http://www.rrh.org.au/publishedarticles/article_print_98.pdf

Griffeth, R. W., & Hom, P. W. (1995). The employee turnover process. *Research in Personnel and Human Resources Management*, *13*(3), 245-293.

Griffeth, R. W., Hom, P. W., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management, 26*(3), 463-488.

Guba, E., & Lincoln, Y. (2005). Paradigmatic Controversies, Contradictions, and Emerging Confluences. In N. Denzin, Y. Lincoln (Eds), *The Sage handbook of qualitative research* (3rd Eds.) (pp. 191-215). Thousand Oaks, CA: Sage Publications Ltd.

Guest, D. E. (1987). Human Resource Management and Industrial Relations. *Journal of Management Studies, 24*(5), 503-521.

Guest, D. E. (1998). Is the Psychological Contract Worth Taking Seriously? *Journal of Organizational Behavior, 19*(S1), 649-664. doi: 10.1002/(SICI)1099-1379(1998)19:1+<649::AID-JOB970>3.0.CO;2-T

Guest, D. E., & Conway N. C. (2002). Communicating the psychological contract: an employer perspective. *Human Resource Management Journal, 12*(2), 22-38.

Guest, D. (2004). Flexible employment contracts, the psychological contract and employee outcomes: an analysis and review of the evidence. *International Journal of Management Reviews, 5*(1), 1-19. doi: 10.1111/j.1460-8545.2004.00094.x

Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: test of a theory. *Organizational Behavior and Human Performance*, *16*(2), 250-279. doi: 10.1016/0030-5073(76)90016-7

Hagopian, A., Zuyderduin, A., Kyobutungi, N., & Yumkella, F. (2009). Job Satisfaction And Morale In The Ugandan Health Workforce. *Health Affairs*, *28*(5), w863. doi: 10.1377/hlthaff.28.5.w863

Hair, J., Anderson, R., Tatham, R., & Black, W. (1998). *Multivariate Data Analysis*. Englewood Cliffs, NJ: Prentice-Hall.

Hatch, M., & Schultz, M. (1997). Relations between organizational culture, identity and image. *European Journal of Marketing, 31*(5/6), 356-365. doi: 10.1108/eb060636

Hays, R., Wynd, S., Veitch, C., & Crossland, L. (2003). Getting the balance right? GPs who chose to stay in rural practice. *The Australian Journal of Rural Health*, *11*(4), 193-198. doi: 10.1111/j.1440-1584.2003.tb00535.x

Health Workforce Australia (HWA). (2012). *Australia's Heath Workforce Series - Doctors in focus*. Adelaide, Australia: HWA. Retrieved from www.hwa.gov.au

Health Workforce Australia (HWA). (2013). *Australia's Health Workforce Series - Health Workforce by Numbers*. Adelaide, Australia: HWA. Retrieved from www.hwa.gov.au

Health Workforce Australia (HWA). (2013). *Australia's Health Workforce Series – Nurses in focus*. Adelaide, Australia: HWA. Retrieved from www.hwa.gov.au

Health Workforce Australia (HWA). (2014). *Health Workforce by Numbers - Issue 3.* Adelaide, Australia: HWA. Retrieved from www.hwa.gov.au

Hegney, D., McCarthy, A., Rogers-Clark, C., & Gorman, D. (2002a). Retaining rural and remote area nurses. The Queensland, Australia experience. *The Journal of Nursing Administration, 32*(3), 128-135. doi: 10.1097/00005110-200203000-00005

Hegney, D., McCarthy, A., Rogers-Clark, C., & Gorman, D. (2002b) Why nurses are attracted to rural and remote practice. Australian Journal of Rural Health *10*(3), 178-186. doi: 10.1046/j.1440-1584.2002.00447.x

Hegney, D., McCarthy, A., Rogers-Clark, C., & Gorman, D. (2002c). Why nurses are Resigning from rural and remote Queensland health facilities. *Collegian*, *9*(2), 33-39. Doi: 10.1016/S1322-7696(08)60414-X

Hegney, D., Plank, A., & Parker, V. (2003). Workplace violence in nursing in Queensland, Australia: A self-reported study. *International Journal of Nursing Practice, 9*(4), 261-268. doi: 10.1046/j.1440-172X.2003.00431.x

Helen, M. (2008). *Other People's Country*. Sydney, NSW: ABC Books.

Hemphill, E., & Kulik, C. (2011). Segmenting a General Practitioner Market to Improve Recruitment Outcomes. *Australian Health Review, 35*(2), 117-123.

Hendry, C., & Pettigrew, A. (1992). Patterns of Strategic Change in the Development of Human Resource Management. *British Journal of Management, 3*(3), 137-156. doi: 10.1111/j.1467-8551.1992.tb00041.x

Herzberg, F. (1968). One More Time: How Do You Motivate Employees? *Harvard Business Review, 46*(1), 53–62.

Highhouse, S., Thornbury, E. E., & Little, I. S. (2007). Social-identity functions of attraction to organizations. *Organizational Behavior and Human Decision Processes*. *103*(1), 134-146. doi: 10.1016/j.obhdp.2006.01.001

Holland, P., Sheehan, C., & De Cieri, H. (2007). Attracting and retaining talent: exploring human resources development trends in Australia. *Human Resource Development International, 10*(3), 247-262. doi: 10.1080/13678860701515158

Holland, P., Sheehan, C., Donohue, R., Pyman, A., & Allen, B. (2015). *Contemporary issues and challenges in HRM.* Prahran, VIC: Tilde Publishing and Distribution.

Hope-Hailey, V., Farndale, E., & Truss, C. (2005). The HR department's role in organisational performance. *Human Resource Management Journal, 15*(3), 49-66.

Howe, K. R. (1988). Against the quantitative–qualitative incompatibility thesis or dogmas die hard. *Educational Researcher*, *17*, 10-16.

Hudson, S., & Inkson, K. (2006). Volunteer overseas development workers: the hero's adventure and personal transformation. *Career Development International*, *11*(4), 304-320. doi: 10.1108/13620430610672522

Humphreys, J. S., Jones, M. P., Jones, J. A., & Mara, P. (2002). Workforce retention in rural and remote Australia: determining the factors that influence length of practice. *Medical Journal of Australia*, *176*(10), 472-476.

Humphreys, J. S., Wakerman, J., & Wells, R. (2006). What do we mean by sustainable rural health services? Implications for rural health research. *Australian Journal of Rural Health, 14*(1), 33-35. doi: 10.1111/j.1440-1584.2006.00750.x

Humphreys, J. S., Wakerman, J., Wells, R., Kuipers, P., Jones, J. A., & Entwistle, P. (2008). "Beyond workforce": a systemic solution for health service provision in small rural and remote communities. *The Medical Journal of Australia, 188*(8 Suppl), S77-S80.

Humphreys, J. S., McGrail, M. R., Joyce, C. M., Scott, A., & Kalb, G. (2012). Who should receive recruitment and retention incentives? Improved targeting of rural doctors using medical workforce data. *Australian Journal of Rural Health*, *20*(1), 3-10. doi: 10.1111/j.1440-1584.2011.01252.x

Hunter, E., Onnis, L., Santhanam-Martin, R., Skalicky, J., Gynther, B., & Dyer, G. (2013). Beasts of burden or organised cooperation: the story of a mental health team in remote, Indigenous Australia. *Australasian Psychiatry, 21*(6), 572-577. doi: 10.1177/1039856213501724

Hunter, E., Onnis, L., & Pritchard, J. (2014). *Gardens of discontent: health and horticulture in remote Aboriginal Australia*. AIATSIS Research Discussion Paper (No. 34). Canberra, Australia: AIATSIS Research Publications, 2014. Retrieved from http://aiatsis.gov.au/publications/products/gardens-discontent-health-and-horticulture-remote-aboriginal-australia

Hunter, E. (2015, November 28). Health sectors puruit of efficiency comes at great cost. *The Australian.* Retrieved from http://www.theaustralian.com.au/news

Hussain, R., Maple, M., Hunter, S. V., Mapedzahama, V., & Reddy, P. (2015). The Fly-in Fly-out and Drive-in Drive-out model of health care service provision for rural and remote Australia: benefits and disadvantages. *Rural and Remote Health, 15*(3), 3068. Retrieved from http://www.rrh.org.au/publishedarticles/article_print_3068.pdf

Ignat, A. A., & Clipa, O. (2012). Teachers' satisfaction with life, job satisfaction and their emotional intelligence. *Procedia - Social and Behavioral Sciences*, *33*, 498-502. doi: 10.1016/j.sbspro.2012.01.171

Irving, P. G., Coleman, D. F., & Cooper, C. L. (1997). Further Assessments of a Three-Component Model of Occupational Commitment: Generalizability and Differences Across Occupations. *Journal of Applied Psychology, 82*(3), 444-452. doi: 10.1037/0021-9010.82.3.444

Iverson, R. D. (1999). An Event History Analysis of Employee Turnover: The Case of Hospital Employees in Australia. *Human Resource Management Review, 9*(4), 397-418. doi: 10.1016/S1053-4822(99)00027-3

Iverson, R. D., & Buttigieg, D. M. (1999). Affective, Normative and Continuance Commitment: Can the 'Right Kind' of Commitment be Managed? *Journal of Management Studies*, *36*(3), 307-333. doi: 10.1111/1467-6486.00138

Janssen, O., & van Yperen, N. (2004). Employee's Goal Orientation, the Quality of Leader-Member Exchange, and the Outcomes of Job Performance and Satisfaction. *Academy of Management Journal*, *47*, 368– 384.

Jick, T. D. (1979). Mixing Qualitative and Quantitative Methods: Triangulation in Action. *Administrative Science Quarterly 24*(4), 602-611.

Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed Methods Research: A Research Paradigm Whose Time Has Come. *Educational Researcher, 33*(7), 14-26. doi: 10.3102/0013189X033007014

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

Jones, M. P., Humphreys, J. S., & Nicholson, T. (2012). Is personality the missing link in understanding recruitment and retention of rural general practitioners? *Australian Journal of Rural Health, 20*(2), 74-79. doi: 10.1111/j.1440-1584.2012.01263.x

Kabene, S. M., Orchard, C., Howard, J. M., Soriano, M. A., & Leduc, R. (2006). The importance of human resources management in health care: a global context. *Human Resources for Health, 4*(20). doi: 10.1186/1478-4491-4-20

Kanungo, R. N., & Hartwick, J. (1987). An Alternative To The Intrinsic-Extrinsic Dichotomy Of Work. *Journal of Management*, *13*(4), 751-766. doi: 10.1177/014920638701300414

Kelly, K. (2000). Improving quality of life of remote area nurses. *Collegian, 7*(4).

Kent-Wilkinson, A., Starr, L., Dumanski, S., Fleck, J., LeFebvre, A., & Child, A. (2010). International nursing student exchange: rural and remote clinical experiences in Australia. *Journal of Agromedicine, 15*(1), 58-65. doi: 10.1080/10599240903389672

Knights, J. A., & Kennedy, B. J. (2005). Psychological contract violation: impacts on job satisfaction and organizational commitment among Australian senior public servants. *Applied H.R.M. Research, 10*(2), 57-72.

Ko, J., & Hur, S. (2014). The Impacts of Employee Benefits, Procedural Justice, and Managerial Trustworthiness on Work Attitudes: Integrated Understanding Based on Social Exchange Theory. *Public Administration Review, 74*(2), 176-187. doi: 10.1111/puar.12160

Konovsky, M. A., & Pugh, S. D. (1994). Citizenship Behavior and Social Exchange. *The Academy of Management Journal, 37*(3), 656-669.

Kowalenko, N., Bartik, W., Whitefield, K., & Wignall, A. (2003). Rural Workforce development and staff support: remodelling service provision for early intervention in child and adolescent mental health. *Australasian Psychiatry, 11*(Supplement), 110-116. doi: 10.1046/j.1038-5282.2003.02007.x

Kruger, E., & Tennant, M. (2005). Oral health workforce in rural and remote Western Australia: Practice perceptions. *Australian Journal of Rural Health*, *13*(5), 321-26. doi: 10.1111/j.1440-1584.2005.00724.x

Law, M., Cooper, B., Strong, S., Stewart, D., Rigby, P., & Letts, L. (1996). The Person-Environment-Occupation Model:A transactive approach to occupational performance. *Canadian Journal of Occupational Therapy, 63*(1), 9-23.

Law, M., Steinwender, S., & Leclair, L. (1998). Occupation, Health and Well-Being. *Canadian Journal of Occupational Therapy, 65*(2), 81-91.

Lee, K., Carswell, J. J., & Allen, N. J. (2000). A Meta-Analytic Review of Occupational Commitment: Relations With Person- and Work-Related Variables. *Journal of Applied Psychology*, *85*(5), 799-811. doi: 10.1037/0021-9010.85.5.799

Lee, S., & Hong, J. (2011). Does Family-Friendly Policy Matter? Testing Its Impact on Turnover and Performance. *Public Administration Review, 71(*6), 870-879.

Lee, C., Hwang, F., Wang, M., & Chen, P. (2011). Hype matters applicant attraction: Study on type of publicity and recruitment advertising. *African Journal of Business Management, 5*(7), 2734-2741. doi: 10.5897/AJBM10.1095

Leech, N., & Onwuegbuzie, A. (2009). A typology of mixed methods research designs. *Quality & Quantity, 43*(2), 265-275. doi: 10.1007/s11135-007-9105-3

Lehmann, U., Dieleman, M., & Martineau, T. (2008). Staffing remote rural areas in middle- and low-income countries: A literature review of attraction and retention. *BMC Health Services Research*, *8*(19). doi: 10.1186/1472-6963-8-19

Lenthall, S., Wakerman, J., Opie, T., Dollard, M., Dunn, S., Knight, S., Macleod, M., & Watson, C. (2009). What stresses remote area nurses? Current knowledge and future action. *The Australian Journal of Rural Health, 17*(4), 208-213. doi: 10.1111/j.1440-1584.2009.01073.x

Lenthall, S., Wakerman, J., Opie, T., Dunn, S., MacLeod, M., Dollard, M., Rickard G., & Knight, S. (2011). Nursing workforce in very remote Australia, characteristics and key

issues. *Australian Journal of Rural Health*, *19*(1), 32-37. doi: 10.1111/j.1440-1584.2010.01174.x

Letts, L., Wilkins, S., Law, M., Stewart, D., Bosch, J., & Westmorland, M. (2007). *Guidelines for Critical Review Form: Qualitative Studies (Version 2.0).* Retrieved from http://srs-mcmaster.ca/wp-content/uploads/2015/05/Guidelines-for-Critical-Review-Form-Qualitative-Studies.pdf

Liamputtong, P. (2009). *Qualitative Research Methods* (3rd ed.). South Melbourne, Australia: Oxford University Press.

Linton, S.H. (2016, January 6). *Inquest into the death of Gonda (aka Connie) SMITH (11025/2012). Retrieved from http://www.coronerscourt.wa.gov.au/_files/Smith%20(Gonda)%20finding.pdf*

Llewellyn, S. (2001). Two-way Windows': Clinicians as Medical Managers. *Organisational Studies, 22*(4), 593-623. doi: 10.1177/0170840601224003

Llorens, S., Schaufeli, W., Bakker, A., & Salanova, M. (2007). Does a positive gain spiral of resources, efficacy beliefs and engagement exist? *Computers in Human Behavior*, *23*, 825–841. doi:10.1016/j.chb.2004.11.012.

Maertz, C. P., & Griffeth, R. W. (2004). Eight Motivational Forces and Voluntary Turnover: A Theoretical Synthesis with Implications for Research. *Journal of Management, 30*(5), 667-683. doi: 10.1016/j.jm.2004.04.001

Maertz, C. P., & Boyar, S. L. (2012). Theory-driven development of a comprehensive turnover-attachment motive survey. *Human Resource Management, 51*(1), 71-98. doi: 10.1002/hrm.20464

Maertz, C. P., Boyar, S. L., & Pearson, A. W. (2012). Extending the 8 forces framework of attachment and voluntary turnover. *Journal of Business and Management, 18*(1), 7-30.

Maertz, C. P., & Campion, M. A. (2004). Profiles in Quitting: Integrating Process and Content Turnover Theory. *The Academy of Management Journal, 47*(4), 566-582. doi: 10.2307/20159602

Mallette, C. (2011). Nurses' work patterns: perceived organizational support and psychological contracts. *Journal of Research in Nursing*, *16*(6), 518-532. doi: 10.1177/1744987111422421

Margolis, S. (2012). Is Fly in/Fly out (FIFO) a viable interim solution to address remote medical workforce shortages? *Rural and Remote Health, 12*, 2261. Retrieved from http://www.rrh.org.au/publishedarticles/article_print_2261.pdf

Maslyn, J. M., & Uhl-Bien. M. (2001). Leader-Member Exchange and Its Dimensions: Effects of Self-Effort and Other's Effort on Relationship Quality. *Journal of Applied Psychology* 86, 697–708. doi:10.1037/0021-9010.86.4.697.

Mathieu, J. E. & Zajac, D. M., (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin, 108*(2), 171-194.

Mbemba, G., Gagnon, M., Paré, G., & Côté, J. (2013). Interventions for supporting nurse retention in rural and remote areas: an umbrella review. *Human Resources for Health, 11*(44). doi: 10.1186/1478-4491-11-44

McGrail, M.R., Humphreys, J.S., Joyce, C., Scott, A., & Kalb, G. (2011). Rural Amenity and Medical Workforce Shortage: Is there a Relationship? *Geographical Research*, *49*(2), 192-202. doi: 10.1111/j.1745-5871.2011.00690.x

McGrail, M. R., & Humphreys, J. S. (2015). Geographical mobility of general practitioners in rural Australia. *The Medical Journal of Australia*, *203*(2), 92-96. doi: 10.5694/mja14.01375

McKenzie, F. H. (2011). Attracting and retaining skilled and professional staff in remote locations of Australia. *Rangeland Journal, 33*(4), 353-363. doi: 10.1071/RJ11024

Mertens, D. M. (2010). Transformative Mixed Methods Research. *Qualitative Inquiry, 16*(6), 469-474. Doi: 10.1177/1077800410364612

Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualiation of organizational commitment. *Human Resource Management Review*, *1*, 61-98.

Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, *78*(4), 538-551.

Miller, S. (2011). *Rural and Remote Health Workforce Innovation and Reform Strategy.* Australia: HWA. Retrieved from www.hwa.gov.au

Mills, M., Culbertson, S., & Fullagar, C. (2012). Conceptualizing and Measuring Engagement: An Analysis of the Utrecht Work Engagement Scale. *Journal of Happiness Studies, 13*(3), 519-545. doi: 10.1007/s10902-011-9277-3

Molina-Azorín, J. F. (2011). The Use and Added Value of Mixed Methods in Management Research. *Journal of Mixed Methods Research, 5*(1), 7-24. doi: 10.1177/1558689810384490

Morell, A., Kiem, S., Millsteed, M., & Pollice, A. (2014). Attraction, recruitment and distribution of health professionals in rural and remote Australia: early results of the Rural Health Professionals Program. *Human Resources for Health*, *12*(15), 613-635. doi: 10.1111/j.1467-6486.2007.00755.x

Morgan, D. L. (2007). Paradigms Lost and Pragmatism Regained: Methodological Implications of Combining Qualitative and Quantitative Methods. *Journal of Mixed Methods Research, 1*(1), 48-76. doi: 10.1177/2345678906292462

Morrison, E. W., & Robinson, S. L. (1997). When Employees Feel Betrayed: A Model of How Psychological Contract Violation Develops. *The Academy of Management Review, 22*(1), 226-256.

Murray, R. B., & Wronski, I. (2006). When the tide goes out: health workforce in rural, remote and Indigenous communities. *Medical Journal of Australia, 185*(1), 37-38.

Nadkarni, S., & Stening, B. W. (1989). Human Resource Management in Remote Communities. *Asia Pacific Journal of Human Resources*, *27*(3), 41-63.

Nankervis, A., Compton, R., & Savery, L. (2002). Strategic HRM in Small and Medium Enterprises: A CEO's Perspective? *Asia Pacific Journal of Human Resources, 40*(2), 260-273. doi: 10.1177/1038411102402008

Nerstad, C., Richardsen, A., & Martinussen, M. (2010). Factorial validity of the Utrecht Work Engagement Scale (UWES) across occupational groups in Norway. *Scandinavian Journal of Psychology, 51*(4), 326-333. doi: 10.1111/j.1467-9450.2009.00770.x

Nogueras, D. J. (2006). Occupational commitment, education, and experience as a predictor of intent to leave the nursing profession. *Nursing economic, 24*(2), 86.

O'Donohue, W., Donohue, R., & Grimmer, M. (2007). Research into the psychological contract: Two Australian perspectives. *Human Resource Development International*, *10*(3), 301-318. doi: 10.1080/13678860701515349

O'Donohue, W., & Nelson, L. (2007). Let's be professional about this: ideology and the psychological contracts of registered nurses. *Journal of Nursing Management, 15*(5), 547-555. doi: 10.1111/j.1365-2834.2007.00715.x

Ohr, S., Parker, V., Jeong, S., & Joyce, T. (2010). Migration of nurses in Australia: where and why? *Australian Journal of Primary Health, 16*, 17-24. doi: 10.1071/PY09051

Onnis L. (2014). Managers are the key to workforce stability: an HRM approach towards improving retention of health professionals in remote northern Australia. In: *Proceedings, 28th Australia and New Zealand Academy of Management (ANZAM) Conference.* UTS Sydney. ISBN: 978-0-9875968

Onnis, L. (2015). An examination of supportive management practices promoting health workforce stability in remote northern Australia. *Australasian Psychiatry*, *23*(6), 679-682. doi: 10.1177/1039856215608284

Onnis, L. (2016). What is a sustainable remote health workforce? People, practice and place. *Rural and Remote Health* (Online) *16,* 3806. Available: http://www.rrh.org.au/articles/subviewnew.asp?ArticleID=3806.

Onnis, L., & Dyer, G. (in press). Maintaining Hope. *Journal of Mental Health Training, Education and Practice*.

Onnis, L., & Pryce, J. (2016). Health professionals working in remote Australia: a review of the literature. *Asia Pacific Journal of Human Resources, 54*, 32-56. doi:10.1111/1744-7941.12067

Onwuegbuzie, A. J., & Leech, N. L. (2005). On Becoming a Pragmatic Researcher: The Importance of Combining Quantitative and Qualitative Research Methodologies. *International Journal of Social Research Methodology, 8*(5), 375-387. doi: 10.1080/13645570500402447

Opie, T., Lenthall, S., Wakerman, J., Dollard, M., MacLeod, M., Knight, S., Dunn, S., & Rickard, G. (2011). Occupational stress in the Australian nursing workforce: a comparison between hospital based nurses and nurses working in very remote communities. *Australian Journal of Advanced Nursing, 28*(4), 36-43.

O'Reilly, C., Chatman, J., & Caldwell, D. (1991). People and organizational culture: A profile comparison approach to assessing person-organization fit. *Academy of Management Journal, 34*(3), 487-516.

O'Toole, K., & Schoo, A. M. (2010). Retention policies for allied health professionals in rural areas: a survey of private practitioners. *Rural and Remote Health, 10*(2), 1331. Retrieved from http://www.rrh.org.au/publishedarticles/article_print_1331.pdf

Paauwe, J. (2009). HRM and performance: Achievements, methodological issues and prospects. *Journal of Management Studies, 46*(1), 129-142. doi: 10.1111/j.1467-6486.2008.00809.x

Page, K. M., & Vella-Brodrick, D. A. (2009). The 'What', 'Why' and 'How' of Employee Well-Being: A New Model. *Social Indicators Research, 90*(3), 441-458.

Pallant, J. (2007). *SPSS survival manual: a step by step guide to data analysis using SPSS* (3rd ed.). Australia: Allen & Unwin.

Parliament of Australia. (2004). *Medicare - Background Brief*. Retrived from http://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/Publications_Archive/archive/medicare?print=1

Pelletier, L. G., Tuson, K. M., Fortier, M. S., Vallerand, R. J., Briere, N. M., & Blais, M. R. (1995). Toward a new measure of intrinsic motivation, extrinsic motivation, and amotivation in sports: the Sport Motivation Scale. *Journal of Sport and Exercise Psychology, 17*(1), 35-53.

Pellegrini, E. K., & Scandura, T. A. (2008). Paternalistic Leadership: A Review and Agenda for Future Research. *Journal of Management* 34, 566–593. doi:10.1177/0149206308316063.

Penz, K., Stewart, N., Carl, D. A., & Morgan, D. (2008). Predictors of Job Satisfaction for Rural Acute Care Registered Nurses in Canada. *Western Journal of Nursing Research, 30*(7), 785-800. doi: 10.1177/0193945908319248

Perkins, L., Thomas K., & Taylor, G. (2000). Advertising and recruitment: Marketing to minorities. *Psychology & Marketing, 17*(3), 235-255.

Perkins, D., Larsen, K., Lyle, D., & Burns, P. (2007). Securing and retaining a mental health workforce in Far Western New South Wales. *Australian Journal of Rural Health, 15*(2), 94-98. doi: 10.1111/j.1440-1584.2007.00860.x

Perlman, Y. (2013). Causal Relationships in the Balanced Scorecard: A Path Analysis Approach. *Journal of Management and Strategy*, *4*(1), 70-79. doi: 10.5430/jms.v4n1p70

Pluchino, A., Rapisarda, A., & Garofalo, A. (2010). The Peter Principle revisited: A computational study. *Physica A*, *389*(3), 467-472. doi: 10.1016/j.physa.2009.09.045

Productivity Commission. (2005). *Australia's Health Workforce, Research Report*. Retrieved from www.pc.gov.au/data/assets/pdf_file/0003/9480/healthworkforce.pdf

Purcell, J., & Hutchinson, S. (2007). Front-line managers as agents in the HRM-performance causal chain: theory, analysis and evidence. *Human Resource Management Journal*, *17*(1), 3-20. doi: 10.1111/j.1748-8583.2007.00022.x

Queensland Government. (2013). *Estimate - Health and Community Services Committee – Health*. Retrieved from https://www.parliament.qld.gov.au/documents/hansard/2013/2013_07_24_EstimatesHCC.pdf

Queensland Government. (2016). *Employment, rural and remote.* Retrieved from https://www.health.qld.gov.au/employment/rural-remote/

Queensland Health Systems Review (QHSR). (2005). *Queensland Health Systems Review*. Retrieved from: http://www.parliament.qld.gov.au/documents/tableoffice/tabledpapers/2005/5105t4447.pdf

Rai, H., & Kothari, J. (2008). Recruitment Advertising and Corporate Image: Interface Between Marketing and Human Resources. *South Asian Journal of Management, 15*(2), 47-60.

Rhoades, L., & Eisenberger, R. (2002). Perceived Organizational Support: A Review of the Literature. *Journal of Applied Psychology, 87*(4), 698-714. doi: 10.1037/0021-9010.87.4.698

Richardson, J., McBey, K., & McKenna, S. (2008). Integrating realistic job previews and realistic living conditions previews. *Personnel Review, 37*(5), 490-508. doi: 10.1108/00483480810891646

Roberts, L., & Hofmann, C. (2004). Assessing the impact of humanitarian assistance in the health sector. *Emerging Themes in Epidemiology, 1*(3). doi: 10.1186/1742-7622-1-3

Robertson, R. (2014). *Leading on the Edge*. Australia: John Wiley and Sons.

Robinson, S. L., & Rousseau, D. M. (1994). Violating the psychological contract: not the exception but the norm. *Journal of Organizational Behavior, 15,* 245-259.

Roots, R. K., & Li, L. C. (2013). Recruitment and retention of occupational therapists and physiotherapists in rural regions: a meta-synthesis. *BMC Health Services Research*, *13*(59). doi: 10.1186/1472-6963-13-59

Rosete, D. (2006). The impact of organisational values and performance management congruency on satisfaction and commitment. *Asia Pacific Journal of Human Resources, 44*(1), 7-24. doi: 10.1177/1038411106061508

Rousseau, D. M. (1989). Psychological and Implied Contracts in Organizations. *Employee Responsibilities and Rights Journal*, *2*(2), 121-139.

Rousseau, D. M. (1995). *Psychological contracts in organizations: understanding written and unwritten agreements*. Thousand Oaks, CA: Sage Publications.

Rural Doctors Association of Australia (RDAA). (2012). *Rural, Regional and Remote Medical Specialists Survey*. *Final Report*. Retrieved from http://www.rdaa.com.au

Rural Health Standing Committee. (2012). *National Strategic Framework for Rural and Remote Health*. ISBN: 978-1-74241-672-4. Retrieved from http://www.ruralhealthaustralia.gov.au

Rural Health Workforce Australia. (2016). GP Workforce Trends Fact Sheet, January 2016. Retrieved from http://www.rhwa.org.au/client_images/1770753.pdf

Russell, D. J., Wakerman, J., & Humphreys, J. S. (2013). What is a reasonable length of employment for health workers in Australian rural and remote primary healthcare services? *Australian Health Review*, *37*(2), 256-261. doi: 10.1071/AH12184

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. *Contemporary Educational Psychology, 25*, 54-67. doi: 10.1006/ceps.1999.1020

Safdar, R. (2012). Relative and Cross-National Human Resources Management Research: Development of a Hypothetical Model. *Global Journal of Management and Business Research, 12*(2), 6-19.

Santhanam, R., Hunter, E., Wilkinson, Y., Whiteford, H., & McEwan, A. (2006). Care, Community, Capacity: Rethinking Mental Health Services in Remote Indigenous Settings. *Australian Journal of Primary Health, 12*(2), 51-56. doi: 10.1071/PY06022

Sax, L. J., Gilmartin, S. K., & Bryant, A. N. (2003). Assessing response rates and nonresponse bias in web and paper surveys. *Research in Higher Education*, *44*(4), 409-432. doi: 10.1023/A:1024232915870

Schaufeli, W. B., & Bakker, A. B. (2004). Job Demands, Job Resources, and Their Relationship with Burnout and Engagement: A Multi-Sample Study. *Journal of Organizational Behavior, 25*(3), 293-315. doi: 10.1002/job.248

Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The Measurement of Work Engagement With a Short Questionnaire: A Cross-National Study. *Educational and Psychological Measurement, 66*(4), 701-716. doi: 10.1177/0013164405282471

Scopelianos, S. (2016, March 27). Gayle Woodford: Man charged with murdering 'popular' outback SA nurse. ABC News. Retrieved from http://www.abc.net.au/news

Seppälä, P., Mauno, S., Feldt, T., Hakanen, J., Kinnunen, U., Tolvanen, A., & Schaufeli, W. (2009). The Construct Validity of the Utrecht Work Engagement Scale: Multisample and Longitudinal Evidence. *Journal of Happiness Studies, 10*(4), 459-481. doi: 10.1007/s10902-008-9100-y

Sheller, M., & Urry, J. (2004). The mobilities paradigm. *Environment and Planning A*, *38*, 207-226.

Shore, L. M., & Martin, H. J. (1989). Job satisfaction and organizational commitment in relation to work performance and turnover intentions. *Human Relations, 42*(7), 625-638. doi: 10.1177/001872678904200705

Sisodia, S., & Chowdhary, N. (2012). Use of illustrations in recruitment advertising by service companies. *Journal of Service Research, 12*(2), 81-109.

Snape, E., & Redman, T. (2010). HRM Practices, Organizational Citizenship Behaviour, and Performance: A Multi-Level Analysis. *Journal of Management Studies, 47*(7), 1219-1247. doi: 10.1111/j.1467-6486.2009.00911.x

Spehar., I., Frich, J. C., & Kjekshus, L. E. (2015). Professional identity and role transitions in clinical managers. *Journal of Health Organization and Management, 29*(3), 353-366. doi: 10.1108/JHOM-03-2013-0047

Spreitzer, G. (1995). Psychological empowerment in the workplace: Dimensions, Measurement and Validation. *Academy of Management Journal*, *38*(5), 1442–1465.

Spreitzer, G. (1996). Social structural characteristics of psychological empowerment. *Academy of Management Journal*, *39*(2), 483–504.

Steering Committee for the Review of Government Service Provision (SCRGSP). (2011). *Overcoming Indigenous Disadvantage: Key Indicators.* Retrieved from http://www.pc.gov.au/research/ongoing/overcoming-indigenous-disadvantage/key-indicators-2011

Stemler, S. (2001). An overview of content analysis. *Practical Assessment, Research & Evaluation*, *7*(17).

Storey, J. (Ed.). (1995). *Human Resource Management: A Critical Text*. London, England: Routledge.

Storey, K. (2010). Fly-in/Fly-out: Implications for Community Sustainability. *Sustainability, 2*(5), 1161-1181. doi: 10.3390/su2051161

Syed, Z., & Jamal, W. (2012). Universalistic Perspective of HRM and Orgnisational Performance: Meta-Analytical Study. *International Bulletin of Business Administration, 13*, 47-57.

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). USA: Pearson Education Inc.

Tajfel, H. (1974). Social identity and intergroup behaviour. *Social Science Information, 13*(2), 65-93. doi: 10.1177/053901847401300204Tashakkori, A., & Teddlie, C. (2003). *Handbook of mixed methods in social & behavioral research,* Thousand Oaks, CA: Sage Publications.

Tashakkori, A., & Creswell, J. W. (2007). Editorial: Exploring the Nature of Research Questions in Mixed Methods Research. *Journal of Mixed Methods Research 1*(3), 207-211. doi: 10.1177/1558689807302814

Taylor, R. Blake, B., & Claudio, F. (2010). An analysis of the opinions and experiences of Australians involved in health aspects of disaster response overseas to enhance effectiveness of humanitarian assistance. QLD: University of Queensland.

Teddlie, C., & Yu, F. (2007). Mixed Methods Sampling: A Typology With Examples. *Journal of Mixed Methods Research, 1*(1), 77-100. doi: 10.1177/2345678906292430

Teddlie, C., & Tashakkori, A. (2009). Foundations of mixed methods research. Thousand Oaks, CA: Sage Publications.

Theriou, G. N., & Chatzoglou, P. D. (2009). Exploring the best HRM practices-performance relationship: an empirical approach. *Journal of Workplace Learning*, *21*(8), 614-646. doi: 10.1108/13665620910996179

Thomas, J., & Harden, A. (2007). Methods for Researching Synthesis Node. London: Evidence for Policy and Practice Information and Co-ordinating (EPPI-) Centre, Social Scence Research Unit. Retrieved from http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=188

Thomas, D., Au, K., & Ravlin, E. (2003). Cultural Variation and the Psychological Contract. *Journal of Organizational Behavior, 24*(5), 451-471. doi: 10.1002/job.209

Thomas, K. W., & Velthouse, B. A. (1990). Cognitive elements of empowerment: An "interpretive" model of intrinsic task motivation. *Academy of Management Review*, *15*, 666-681.

Thompson, P. (2011). The trouble with HRM. *Human Resource Management Journal*, *21*(4), 355-367. doi: 10.1111/j.1748-8583.2011.00180.x

Thompson, S. J., Gifford, S. M., & Thorpe, L. (2000). The Social and Cultural Context of Risk and Prevention: Food and Physical Activity in an Urban Aboriginal Community. *Health Education & Behavior, 27*(6), 725-743. doi: 10.1177/109019810002700608

Thurston, W., Cove, L., & Meadows, L. (2008). Methodological Congruence in Complex and Collaborative Mixed Method Studies. *International Journal of Multiple Research Approaches, 2*(1), 2-14. doi: 10.5172/mra.455.2.1.2

Torres Strait Island Regional Council. (2016). *Geographical location and map*. Retrieved from http://www.tsirc.qld.gov.au/our-region/torres-strait/geographical-location-and-map

Townsend, K., Wilkinson, A., & Allan, C. (2012a). Mixed signals in HRM: the HRM role of hospital line managers. *Human Resource Management Journal, 22*(3), 267-282. doi: 10.1111/j.1748-8583.2011.00166.x

Townsend, K., Wilkinson, A., Bamber, G., & Cameron, A. (2012b). Accidental, unprepared, and unsupported: clinical nurses becoming managers. *The International Journal of Human Resource Management, 23*(1), 204-220. doi: 10.1080/09585192.2011.610963

Truss, C. (1997). Soft and Hard Models of Human Resource Management: A Reappraisal. *Journal of Management Studies, 34*(1), 53-73. doi: 10.1111/1467-6486.00042

Truss, C., Shantz, A., Soane, E., Alfes, K., & Delbridge, R. (2013). Employee engagement, organisational performance and individual well-being: Exploring the evidence, developing the theory. *International Journal of Human Resource Management*, *24*(14), 2657-2669. doi: 10.1111/1467-6486.00042

Uggerslev, K., Fassina, N., & Kraichy, D. (2012). Recruiting through the stages: a meta-analytic test of predictors of applicant attraction at different stages of the recruiting process. *Personnel Psychology*, *65*(3), 597-660. doi: 10.1111/j.1744-6570.2012.01254.x

University of Adelaide. (2012). *Accessibility Remoteness Index Australia* [MAP]. Retrieved from: https://www.adelaide.edu.au/apmrc/research/projects/category/aria.html

Vandenberg, R. J., & Lance, C. E. (1992). Examining the causal order of job satisfaction and organizational commitment. *Journal of Management, 18*(1), 153-168.

Vandenberg, R. J., & Scarpello, V. (1994). A Longitudinal Assessment of the Determinant Relationship between Employee Commitments to the Occupation and the Organization. *Journal of Organizational Behavior, 15*(6), 535-547.

van der Heijden, B. I. J. M., & van Dam, K., & Hasselhorn, H. M. (2009). Intention to leave nursing: The importance of interpersonal work context, work-home interference, and job satisfaction beyond the effect of occupational commitment. *Career Development International, 14*(7), 616-635. doi: 10.1108/13620430911005681.

van Gestel, N., & Nyberg, D. (2009). Translating national policy changes into local HRM practices. *Personnel Review, 38*, 544-559.

Vieira, A. L. (2011). *Interactive LISREL in Practice*, SpringerBriefs in Statistics. doi:10.1007/978-3-642-3-18044-6-2

Wakerman, J., Humphreys, J. S., Wells, R., Kuipers, P., Jones, J. A., Entwistle, P., & Kinsman, L. (2009). Features of effective primary health care models in rural and remote Australia: a case-study analysis. *The Medical Journal of Australia*, *191*(2), 88-91.

Wakerman, J., & Humphreys, J. (2012). Sustainable workforce and sustainable health systems for rural and remote Australia. *MJA Open*(Supplement 3), 14-17. doi: 10.5694/mjao11.11639

Wakerman, J., & Davey, C. (2008). Rural and remote health management: 'the next generation is not going to put up with this...'. *Asia Pacific Journal of Health Management*, *3*(1), 13-18.

Waldman, D. A. (1994). The Contributions of Total Quality Management to a Theory of Work Performance. *The Academy of Management Review, 19*(3), 510-536.

Watson, T. J. (2004). HRM and Critical Social Science Analysis. *Journal of Management Studies, 41*(3), 447-467. doi: 10.1111/j.1467-6486.2004.00440.x

Wingreen, S. C., & Blanton, J. E. (2007). A social cognitive interpretation of person-organization fitting: The maintenance and development of professional technical competency. *Human Resource Management, 46*(4), 631-650. doi: 10.1002/hrm.20185

Wood, S., & Albanese, M. T. (1995). Can we speak of a high commitment management on the shop floor? *Journal of Management Studies, 32*(2), 215-247. doi: 10.1111/j.1467-6486.1995.tb00341.x

Wood, J., Zeffane, R., Fromholtz, M., Wiesner, R., & Creed, A. (2010). *Organisational Behaviour* (2nd ed.). Milton, QLD: John Wiley and Sons Australia Ltd.

Wood, N., Newton, B., Bineham, N., & Lockwood, T. (2012). *Kimberley Health Profile*. Retreived from http://www.wacountry.health.wa.gov.au

Woolley, C. M. (2009). Meeting the Mixed Methods Challenge of Integration in a Sociological Study of Structure and Agency. *Journal of Mixed Methods Research, 3*(1), 7-25. doi: 10.1177/1558689808325774

World Health Organisation (WHO). (2010). *Increasing access to health workers in remote and rural areas through improved retention*. France: WHO Press. Retrieved from http://www.who.int/hrh

Wright, K. B. (2005). Researching Internet-Based Populations: Advantages and Disadvantages of Online Survey Research, Online Questionnaire Authoring Software Packages, and Web Survey Services. *Journal of Computer-Mediated Communication*, *10*(3), 6-20. doi: 10.1111/j.1083-6101.2005.tb00259.x

Wright, P. M., & Kehoe, R. R. (2008). Human resource practices and organizational commitment: A deeper examination. *Asia Pacific Journal of Human Resources*, *46*(1), 6-20. doi: 10.1177/1038411107086540.

Xerri, M. (2013). Workplace relationships and the innovative behaviour of nursing employees: a social exchange perspective. *Asia Pacific Journal of Human Resources, 51*(1), 103-123. doi:10.1111/j.1744-7941.2012.00031.x

Xerri, M., & Brunetto, Y. (2013). Fostering innovative behaviour: the importance of employee commitment and organisational citizenship behaviour. *The International Journal of Human Resource Management*, *24*(16), 3163-3177. doi: 10.1080/09585192.2013.775033

Yanadori, Y., & van Jaarsveld, D. D. (2014). The relationships of informal high performance work practices to job satisfaction and workplace profitability. *Industrial Relations*, 53, 501-534.

Yin, R. K. (2006). Mixed Methods Research: Are the Methods Genuinely Integrated or Merely Parallel? *Research in the Schools, 13*(1), 41-47.

Zhang, M., Jansen, B. J., & Chowdhury, A. (2011). Business engagement on Twitter: a path analysis. *Electron Markets, 21*(3), 161-175. doi: 10.1007/s12525-011-0065-z

Zhao, H., Wayne, S., Glibkowski, B., & Bravo, J. (2007). The impact of psychological contract breach on work-related outcomes: a meta-analysis. *Personnel Psychology, 60*(3), 647-680. doi: 10.1111/j.1744-6570.2007.00087.x

Zuber-Skerritt, O., Wood, L., & Louw, I. (2015). *A Participatory Paradigm for an Engaged Scholarship in Higher Education*. Rotterdam: Sense Publishers.

Appendix A

Key Extent Themes from the literature review

Personal: These factors are unique to each person and enter the workplace with the person. While some factors overlap with other themes, the factors listed here are considered unique to the person. Consequently, the impact of these factors exits with the person when the employment relationship concludes.

Sub-theme	Factor	Description/Impact	Literature (see Table 1 for list of articles reviewed for this study and the corresponding number for this table)																	
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Characteristics, Traits, Background and Experience This sub-theme includes those factors that relate to the health professional's characteristics, personality traits, background and experience.	Person-fit.	Closeness of the match between the person and the role/organisation/community.				◆			◆												
	Rural Upbringing.	Lived in a rural/remote area during formative years.									◆	◆	◆			◆					
	Previous exposure to remote living.	Lived/worked in a remote area prior to commencing current/most recent role.									◆	◆			◆						
	First qualification.	Attended a city or regional university.											◆								
	Clinical placements.	Completed before first rural/remote appointment.									◆	◆									
	Expectations and preconceptions.	Image of role (before commencing).									◆			◆					◆		
	Age.	Biological age is associated with experience, career-stage, and family responsibilities.									◆	◆	◆								
	Self-reliance.	Drawing on available resources through own efforts.								◆											
	Personal isolation; loneliness	Arising from lack of family and/or social connections.							◆						◆						
	Responsiveness to a changing environment	Personal challenges.								◆											
	Coping with adversity.	Personal challenges.								◆											

	Highly developed problem-solving abilities.	Personal skills.								◆										
	Lack of control over their personal lives.	Personal challenges.							◆											
	Community respect; sense of community.	Personal rewards.					◆			◆	◆	◆								
	Feeling valued.	Personal rewards.		◆			◆	◆		◆	◆	◆				◆		◆		
	Job satisfaction; rewarding work.	Personal rewards.		◆					◆	◆	◆	◆	◆		◆	◆			◆	
Personal – Family and Friends Family and friends provide support as well as obligations and responsibilities.	Friendships and social support.	Personal challenges when friends are also clients.																	◆	
	Conflicting relationships.	Friendships and client relationships.									◆	◆	◆			◆				
	Family responsibilities.	Personal obligations.						◆		◆				◆						
	Work/life balance.	Personal needs.									◆	◆	◆							
	Family friendly workplace.	Personal needs.		◆					◆	◆		◆				◆				
	Proximity of family and friends.	Personal needs.		◆																
	Financial considerations.	Personal needs.						◆		◆	◆	◆				◆		◆			◆
	Housing; childcare; children's education.	Personal needs.		◆				◆		◆		◆									◆
	Partner's employment.	Personal needs.		◆												◆					
Personal – Health and Lifestyle Factors that influence decision-making and the work experience based on the	Climate.	Disincentive.		◆							◆	◆				◆		◆			
	Lifestyle attractive.	Attraction factors.					◆									◆					
	Travel.	Opportunities within region.		◆											◆			◆		◆	◆
	Limited available. resources.	Personal needs satisfied (e.g. sporting clubs, restaurants, cinemas).		◆											◆						
	High living costs.	Inflated prices, freight and		◆						◆				◆							

person's health and lifestyle needs and expectations.		transportation impact on health (e.g. access to fresh produce).																			
	Excessive on-call responsibilities.	Health implications (e.g. sleep deprivation).							◆				◆		◆		◆				
	Limited access to leave.	Health implications.		◆				◆								◆	◆	◆			
	Stress.	Health implications; reduced work performance.				◆	◆		◆	◆							◆	◆			
	Feeling exhausted and overwhelmed; tired; fatigue; burnout; 'use-by-date'.	Health implications.							◆												
	Personal safety.	Health implications.									◆							◆			
	Distress.	Health implications.						◆													
	Self-care.	Personal responsibility; preventative action.						◆					◆			◆					
	Physical and emotional demands of the work.	Impact on physical/mental health.										◆	◆				◆				
Professional: These factors are related to aspects of their profession, for example, discipline-specific skills, knowledge, experience, professional aspects of the role, access to professional development and professional support mechanisms. Many of these factors intersect with personal and organisational factors.																					
Professional – Role These factors are specific to their professional role but may overlap with other factors.	Clinical caseloads; Client-base.	Public practitioners - large caseloads; private practitioners - small client-base.		◆	◆			◆				◆	◆			◆					
	Caseload Diversity; professionally challenging/opportunities.	Rewards.		◆		◆	◆		◆	◆	◆	◆	◆	◆		◆		◆			◆
	Financially sustainability.	Adequate income.																	◆		
	Perceived ownership of patients.	Professional challenges (e.g. small populations).						◆													

	Preparation for remote practice; clinical support; inter-disciplinary misunderstanding.	Professional challenges.	◆				◆		◆				◆								
	Frustration with administrative tasks.	Reduces time for professional practice.		◆	◆		◆			◆											
	Attracted to specific aspects of position; availability of remote work.	Professional attraction factors.		◆												◆					
	Advanced practice roles; autonomy; increased responsibilities; respect.	Professionally rewarding.		◆			◆			◆	◆	◆	◆			◆		◆		◆	◆
	Excessive amount of unpaid work; long hours.	Professionally challenging.					◆		◆	◆							◆	◆			
	Flexibility; creativity; time management; general management skills.	Professional skills.	◆				◆						◆							◆	
	Limited resources.	Disincentive.					◆														
Professional – Development The professional skill development needed to maintain and update competence.	Professional development (access).	Professionally challenging due to remoteness, costs, travel, backfill/locum cover clinical role.	◆	◆	◆		◆			◆	◆	◆	◆	◆		◆	◆		◆		
	Technology.	Improvements/access.	◆	◆							◆					◆					
	Maintaining and/or upgrading skills; suitability for graduates; additional education for advanced roles.	Professional competence.		◆						◆	◆		◆				◆				
	In-service training.	Professional competence.	◆								◆								◆		

	Orientation/Induction.	Organisational competence.												◆							
	Paid professional development; conference attendance; post-graduate study leave; scholarships; formal and financial recognition of post-registration knowledge/skills.	Professional competence.	◆	◆							◆		◆	◆					◆		◆
	Remote-specific qualifications	Professional competence.					◆										◆				
	Limited remote careerpaths.	Disincentive.		◆			◆					◆	◆						◆		◆
Professional – Support Factors that provide professional support for those working in remote areas.	Sole positions; professional isolation	Disincentive.	◆	◆			◆	◆	◆	◆			◆			◆	◆	◆			
	Supervision; mentoring; networking; peer support/recognition; professional support;	Professional competence.	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆		◆			◆	◆	◆
	Expensive.	Disincentive.																		◆	
Organisational: These factors relate to those aspects of the work environment that are under the control/direction of organisations. This theme overlaps other themes, e.g. health professionals are responsible for maintaining competence (professional); however, organisational policy can impact on this through incentives/compensation (organisational).																					
Organisational – Incentives and Benefits Benefits offered to attract and retain health professionals.	Paid professional development; study leave; conference attendance; additional annual leave; financial consideration for being on-call 24-hours; accommodation.	General compensation and benefits.	◆			◆					◆	◆	◆			◆			◆		◆
	Retention payments; financial incentives;	Targeted incentives.	◆							◆	◆	◆	◆	◆		◆			◆	◆	◆

	annual airfares; subsidies (education, relocation, travel, childcare).																			
	Salary packaging; tax rebates or incentives.	Organisational policy impacts taxation benefits.													◆			◆		
	Remuneration; entitlements reflecting remote practice; inequalities in remuneration between disciplines.	Rewards.	◆	◆	◆	◆						◆				◆			◆	◆	◆
Organisational – Management Factors directly associated with management practices in the organisation.	Dissatisfaction with management practices; lack of advocacy, management support and/or recognition; communication.	Disincentives.	◆					◆			◆		◆						◆			
	Organisational barriers; unrealistic expectations; localised decision-making; management skills; flexible hours; family friendly rostering.	Employee-employer relationship.	◆			◆	◆		◆	◆	◆		◆						◆		◆
	Inappropriate line supervision; relationship with supervisor.	Employee-employer relationship.	◆								◆										
	Inadequate clinical facilities/resources; restricted access to vehicles; poor visiting services co-ordination.	Disincentives.	◆	◆			◆				◆								◆	◆	
	Recruitment; insufficient workforce; vacancies; inadequate backfill; supporting visiting	Impact of HRM practices.	◆	◆		◆	◆				◆		◆					◆	◆	◆	◆

	services; sufficient preparation; orientation.																				
	Good governance; consistent working conditions; visionary leadership; role clarity; teamwork.	Management practices.	◆	◆					◆		◆										◆
Contextual: These factors relate to the context in which the work is being undertaken. These factors are geographical; cultural (e.g. Indigenous culture, rural culture, Australian culture); and environmental (e.g. physical, social, political).																					
Contextual – Responsive to environment Working in remote regions requires health professionals to have skills so that they are responsive to the remote environment.	Diversity of clients and illnesses.	Challenges.		◆																	
	Culturally diversity; cultural awareness; cultural knowledge; culturally congruent healthcare.	Region-specific challenges.	◆												◆					◆	
	Appropriate language.	Translating/interpreting health information (two-way patient-practitioner exchange).	◆	◆																	
	Community focus rather than medical focus; nurturing community relationships.	Professional challenges.				◆	◆		◆											◆	
Contextual - Remote considerations Remote regions hold many challenges for the local population that are also experienced by health	Large geographical areas; travelling reduces clinical time; seasonal hazards e.g. impassable roads; reduced access to resources.	Disincentives.	◆	◆			◆												◆		
	Personal-professional conflict through patient-practitioner inter-relationships; lack of anonymity; intimacy of	Contextual challenges.		◆	◆			◆	◆	◆											

professionals.	small towns can lead to role conflict; tiring.																				
	Exciting, rewarding; opportunity to work with Aboriginal people; understanding the realities and rewards of remote practice.	Incentives.		◆																	
	Models of service delivery; cross-cultural services; challenges different from urban regions.	Contextual challenges.		◆		◆			◆					◆	◆						

Appendix B

Criteria for the HRM domain literature review

Criteria	Description
Author	Name (year)
Aim	Is the aim/purpose clear? (Y/N)
Literature	Is there evidence of a literature review? (Y/N)
Design	L = Qualitative / N = Quantitative A = Appropriate for aims Method
Sample	Is it appropriate (sample number)
Theory	Is it clear? (Y/N) / The name of theories included in the article.
Data Collection	Is the procedure clearly outlined? (Y/N) Was it rigorous? (Y/N)
Data Analysis	A = Appropriate Q = Auditable/Quality S = Statistical significance discussed
Peer Reviewed	Was it Peer reviewed? (Y/N)
Conclusions	Were the conclusions appropriate for the study? (Y/N)
Key Selection Criteria	Selection criteria for inclusion of articles in this literature review. A = About people management (contains a theory, model, strategy, plan) B = Relevant to managing people in a remote/isolated area C = Applicable to the health sector / health professionals D = Appropriate for an *Australian* workplace
Main Argument	Summary of the article's main argument.
Inclusion	Include in the HRM Framework literature review. (Y/N)

Appendix C

Review of the literature using the guidelines for critical review form for qualitative and quantitative research studies (form adapted from Letts et al., 2007)

Author (Year)	Aim	Lit	Design			Sample (n)	Theory		Data Collect		Data Analysis			Peer Rev.	Con	Criteria				Main Argument	Inc
Abdel-Halim (1980)	**Y**	**Y**	**N**	**A**	Q'naire	n=89	**Y**	The Work Adjustment Theory	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Individual personality and job scope characteristics should be considered jointly.	**Y**
Alderfer (1969)	**Y**	**Y**	**N**	**A**	Q'naire	n=110	**Y**	ERG Theory	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Their empirical test for ERG theory (existence, relatedness, and growth) supported their hypothesis that lower-level satisfaction is not a prerequisite for the emergence of higher-order needs.	**Y**
Aranya & Jacobson (1975)	**Y**	**N**	**N**	**A**	Survey	n=228	**Y**	Becker (1975) side-bet theory. Ritzer Trice's Theory	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Organisational and occupation commitment are a psychological phenomenon.	**Y**
Aselage & Eisenberger (2003)	**Y**	**Y**	**L**	**A**	Lit. Review	-	**Y**	The integrated model of psychological contract theory and organizational support theory	-	-	**A**	-	-	**Y**	**Y**	**A**	**B**	**C**	**D**	Organisational support theory and psychological contract theory are interdependent. Key processes in each theory influence the relationships described in the other theory furthering our	**Y**

																			understanding of perceived organisational support and the psychological contract.	
Baard, Deci & Ryan (2004)	**Y**	**Y**	**N**	**A**	Q'naire	Study 1 (n=59) Study 2 (n=528)	**Y**	Self Determination Theory (SDT)	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Performance and psychological adjustment are influenced by intrinsic needs for competence, autonomy and relatedness. The work environment is extremely important for effective performance.	**Y**
Bal et al. (2008)	**Y**	**Y**	**L**	**A**	Lit. review - Meta-analysis	-	**Y**	PCT Affective Events Theory SET Lifespan Theory	**Y**	**Y**	**A**	**Q**	-	**Y**	**Y**	**A**	**B**	**C**	**D**	The relationship between contract breach and trust and organizational commitment were indeed stronger for younger workers, whereas the relation between contract breach and job satisfaction was stronger for older workers.	**Y**
Bartlett (2001)	**Y**	**Y**	**N**	**A**	Q'naire	n=337	**Y**	Social Exchange Theory	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Perceived access to training, social support for training, motivation to learn, and perceived benefits of training are positively related to organizational commitment.	**Y**
Baruch & Winkelmann (2002)	**Y**	**Y**	**N**	**A**	Q'naire	n=92	**Y**	Multiple Commitment Model	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Different work-related and individual characteristics led to varying strengths in the	**Y**

																			types of commitment measured and suggested a causal relationship.	
Bhattacharya & Wright (2005)	**Y**	**Y**	**L**	**A**	Review	-	**Y**	Real Options Theory	-	-	**A**	-	-	**Y**	**Y**	**A**	**B**	**C**	**D**	A real options approach to strategic HRM provides a rationale for value creation through HR practices.	**Y**
Bigbee & Mixon (2013)	**Y**	**Y**	**N**	**A**	Retros-pective Longi-tudinal	n= 1283	**Y**	Weinert's Rural Nursing Theory (1989)	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Students from rural backgrounds achieve similar levels of success in nursing education despite lower acceptance rates, when compared with urban students.	**Y**
Blau (2008)	**Y**	**Y**	**N**	**A**	Online Survey	n = 2035	**Y**	Rhodes & Doering Model Kaleidoscope Career Model	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	The four-dimension view of occupational commitment framework can be used to better explain intention to leave occupation.	**Y**
Blau (2003)	**Y**	**Y**	**N**	**A**	Multi-sample research design	-	**Y**	Myer, Allen & Smith's 3-dimension model	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Separating the continuance commitment dimension of the three-dimension model into two separate dimensions (accumulated cost & limited alternatives) is a more appropriate measure given the changes to workplace dynamics.	**Y**
Bowers & Alchlaghi (1999)	**Y**	**Y**	**N**	**A**	Q'naire	n=59	**Y**	Harvard Analytical Framework for HRM	**Y**	**Y**	**A**	**Q**	-	**Y**	**Y**	**A**	**B**	**C**	**D**	HRM practices can be extended to contractors and Agency staff to enhance service	**Y**

								The Flexible Firm											provision.	
Boxall & Purcell (2000)	**Y**	**Y**	**L**	**A**	Review	-	**Y**	Resource-based Perspective (RBP) 'best-fit' and 'best practice' models	**N**	-	-	**Q**	-	**Y**	**Y**	**A**	**B**	**C**	**D**	HRM should extend beyond the organisational-level analysis, linking to debates about market regulation and social capital that offer more secure, rewarding work for society.	**Y**
Budhwar & Debrah (2001)	**Y**	**Y**	**L**	**A**	Lit. Review	-	**Y**	Contextual Model of Factors determining HRM policies and practices	-	-	-	-	-	**Y**	**Y**	**A**	**B**	**C**	**D**	A contextual model for conducting cross-national and comparative HRM studies is proposed.	**Y**
Bunderson (2001)	**Y**	**Y**	**N**	**A**	Q'naire	Time 1: n= 283 Time 2: n= 167	**Y**	Psychological Contract	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Perceived psychological contract breaches of administrative role obligations are most strongly associated with dissatisfaction, thoughts of quitting and turnover, whereas perceived breaches of professional role obligations are most strongly associated with lower organisational commitment and job performance.	**Y**
Coyle-Shapiro & Kessler (2000)	**Y**	**Y**	**N**	**A**	Survey (longi-	Mgrs n=703	**Y**	Psychological Contract	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Employees redress the balance in the employment relationship	**Y**

					tudinal)	E'ees n= 6953													through reducing their commitment and their willingness to engage in organisational citizenship behaviour when they perceive their employer has breached the psychological contract.	
Crettenden (2014)	**Y**	**Y**	**L**	**A**	Review	-	**Y**	Stock and Flow Process	**Y**	**Y**	**A**	**Q**	-	**Y**	**Y**	**A**	**B**	**C**	**D**	A 'business as usual' approach to Australia's health workforce is not sustainable over the next 10 years. There is a need for co-ordinated long term reforms by government, professional bodies and education.	**Y**
Cropanzano & Mitchell (2005)	**Y**	**Y**	**L**	**A**	Lit. review	-	**Y**	Social Exchange Theory	-	-	**A**	-	-	**Y**	**Y**	**A**	**B**	**C**	**D**	SET is influential; how-ever over time theorists have created confusion.	**Y**
Cullinane & Dundon (2006)	**Y**	**Y**	**L**	**A**	Lit. review	-	**Y**	Psychological Contract	-	-	**A**	-	-	**Y**	**Y**	**A**	**B**	**C**	**D**	The current construct of the psychological contract symbolises an ideology biased formula design for a particular management interpret-tation of contemporary employment.	**Y**
DeRosa, Hantula, Kock & D'Arcy (2004)	**Y**	**Y**	**L**	**A**	Lit. Review	-	**Y**	Media Richness Theory Media Naturalness Theory	-	-	-	-	-	**Y**	**Y**	**A**	**B**	**C**	**D**	Geographic distance and technological complexity are secondary to adaptation, as humans are the most complex and flexible part of communication systems.	**Y**

Cho & Perry (2012)	**Y**	**Y**	**N**	**A**	**Survey**	n= 212,223	**Y**	Self Determination Theory (SDT) Theoretical Framework Expectancy Theory	**N**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Intrinsic motivation is associated with both employee satisfaction and turnover intention. Managerial trustworthiness and goal directedness increased the leverage of intrinsic motivation on employee satisfaction, whereas extrinsic rewards decreased the leverage.	**Y**
Cohen & Avrahami (2006)	**Y**	**Y**	**N**	**A**	Q'naire	n=241	**Y**	Organisational citizenship behaviour (OCB)	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Collectivist employees tended to display OCB more frequently than individualistic employees. Positive relationships were found between OCB and justice variables; marital status; and work experience.	**Y**
Deci (1972)	**Y**	**Y**	**N**	**A**	Psy. Experi-ment	n=96	**Y**	Cognitive Evaluation Theory Inequity Theory	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Large payments can lead to increased performance; due to feelings of inequity these payments will however make people dependent on the money, decreasing their intrinsic motivation.	**Y**
De Cuyper, deJong, de Wilte, Isaksson, Rigoti & Schalk (2007)	**Y**	**Y**	**L**	**A**	Lit. Review	**-**	**Y**	Work Stress Theory Social Exchange Theory	**-**	**-**	**A**	**-**	**-**	**Y**	**Y**	**A**	**B**	**C**	**D**	The effects of temporary employment for the individual are inconclusive and widely applied theoretical frameworks can't account	**Y**

								Social Comparison Theory											for the inconclusive results.	
Delery & Doty (1996)	**Y**	**Y**	**N**	**A**	Q'naire	HR n=216 Execs n=114	**Y**	HRM modes of theorizing: universalistic, contingency, and configurational perspectives.	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	The universalistic, contingency, and configurational perspectives of HRM are viable and lead to different assumptions about the relationships among HR practices, strategy, and organisa-tional performance.	**Y**
Dubois & Dubois (2012)	**Y**	**Y**	**L**	**A**	Lit. Review	-	**Y**	Contextual Model of Strategic HRM for Organisational Sustainability.	**N**	-	**A**	**N**	**N / A**	**Y**	**Y**	**A**	**B**	**C**	**D**	Their model recognises the distinction between transactional HRM and is delineated by policy/ system design and implementation.	**Y**
Gagne & Deci (2005)	**Y**	**Y**	**L**	**A**	Review	-	**Y**	SDT Cognitive Evaluation Theory	**N**	-	**A**	-	-	**Y**	**Y**	**A**	**B**	**C**	**D**	Self-determination theory as a theory of work motivation shows its relevance to theories of organisational behaviour.	**Y**
Gambino (2010)	**Y**	**Y**	**N**	**A**	Survey	n=50	**Y**	Adapted measure from Blau (2003)	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Normative commitment was the strongest indicator of RN retention in this study, a finding rarely supported in health care literature.	**Y**
Guest (2004)	**Y**	**Y**	**L**	**A**	Lit. Review		**Y**	Psychological Contracts	**N**	-	**A**	-	-	**Y**	**Y**	**A**	**B**	**C**	**D**	The body of research is limited but is sufficient to challenge the assumption that workers on flexible contracts are invariably	**Y**

																			disadvantaged.	
Giancola (2011)	**N**	**Y**	**L**	**A**	Review	-	**Y**	Herzberg – Total Rewards Model SDT	**N**	-	**N**	**N**	**N**	**Y**	**N**	**A**	**B**	**C**	**D**	In the field of compen-sation management a lack of attention is given to designing intrinsically rewarding jobs to enhance employee motivation.	**Y**
Gould-William & Davies (2005)	**Y**	**Y**	**M**	**A**	Survey & group inter-views	n=206	**Y**	Social Exchange Theory	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Workers response to management practice is consistent with social exchange theory.	**Y**
Hackman & Oldham	**Y**	**Y**	**N**	**A**	Survey	n=658	**Y**	Job characteristics of Work Motivation (Herzberg)	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Individuals' needs change or adjust to meet the demands of the situation in which they find themselves.	**Y**
Hatch & Schultz (1997)	**Y**	**Y**	-	-	-	-	**Y**	A model of the relationships between organisational culture, identity and image	**N**	-	-	-	-	**Y**	**Y**	**A**	**B**	**C**	**D**	Although the concepts of organisational culture, identity and image derive from various theoretical disciplines, they argue that they are symbolic value-based constructions that are becoming increasingly intertwined.	**Y**
Hess & Jepsen (2009)	**Y**	**Y**	**N**	**A**	Survey	n=287	**Y**	Psychological Contracts	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	There were small but significant differences between individuals' psychological contract perceptions were based on both career stage and generational cohort.	**Y**
Highhouse, Thornbury & Little (2006)	**Y**	**Y**	**L**	**A**	Survey	S1 n=106 S2	**Y**	Social Identity theory	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	A series of studies confirmed a measure of social-identity	**Y**

						n=261 S3 N=111 S4 n=37													consciousness with two dimensions - concern for *social adjustment* and concern for *value expression*.	
Hudson & Inkson (2006)	**Y**	**Y**	**L**	**A**	Interview Q'naire	n =29 n=26	**Y**	Boundaryless Career Theory Hero's journey	**Y**	**Y**	**A**	**Q**	**-**	**Y**	**Y**	**A**	**B**	**C**	**D**	Key features of the hero's adventure model were motivations of adventure and altruism, feelings of success, new skill and personal transformations in identity and values.	**Y**
Iverson & Buttigieg (1999)	**Y**	**Y**	**N**	**A**	Survey	n=505	**Y**	Allen & Myer (1996) Four factor Commitment Theory	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Organisations need to focus on obtaining affective and normative commitment rather than components based on cost.	**Y**
Irving et al (1997)	**Y**	**Y**	**N**	**A**	Q'naire	n=232	**Y**	Allen & Myer (1996)	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	The role of the 'locus of control' in the commitment process is complex.	**Y**
Kanungo & Hartwick (1987)	**Y**	**Y**	**N**	**A**	Q'naire	n=265	**Y**	Expectancy Theory	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Employee perceptions were focused on those dimensions characterised by expectancy theory constructs.	**Y**
Knights & Kennedy	**Y**	**Y**	**N**	**A**	Q'naire	n=251	**Y**	Psychological Contracts	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Psychological contract violation links job satisfaction and organi-sational commitment and can have negative consequences.	**Y**
Ko & Hur (2013)	**Y**	**Y**	**N**	**A**	Survey	n = 62,500	**Y**	Social Exchange Theory	**N**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Procedural justice and managerial	**Y**

																			trustworthiness are positively related to job satisfaction, whereas family-friendly benefits, managerial trust worthiness and procedural justice are negatively associated with turnover intention.	
Konovsky & Pugh (1994)	**Y**	**Y**	**N**	**A**	Q'naire	n=475	**Y**	Social Exchange Theory	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	An employee's trust in a supervisor mediates the relationship between procedural fairness in decision-making and employee citizenship.	**Y**
Lee, Carswell & Allen (2000)	**Y**	**Y**	**L**	**A**	Meta-analysis	-	**Y**	Morrow's concentric Circle model of work commitment	**Y**	**Y**	**A**	**Q**	-	**Y**	**Y**	**A**	**B**	**C**	**D**	Occupational commitment (OC) and organizational commit-ment were positively related. OC was positively related to job involvement, satisfaction and performance. OC has an indirect effect on turnover intention.	**Y**
Maertz & Boyar (2012)	**Y**	**Y**	**N**	**A**	Survey Valid-ation	n=432	**Y**	Turnover-Attachment Motivation Theory (TAMS)	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	The validated survey is the most complete survey of turnover antecedents to date.	**Y**
Mallette (2011)	**Y**	**Y**	**N**	**A**	Cross-sectional Survey	n=650	**Y**	Social Exchange Theory Psychological Contracts	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Psychological contracts have a direct effect on job satisfaction and withdrawal, career commitment and career withdrawal.	**Y**

Mignonac & Richebe (2013)	**Y**	**Y**	**N**	**A**	Q'naire (email)	n=151	**Y**	Social Exchange Theory	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Perceptions of disinterested support decrease voluntary turnover through enhancing perceptions of organisational support, org commitment and reducing turnover intention.	**Y**
Mueller (1996)	**Y**	**Y**	**L**	**A**	Lit. Review	-	**Y**	Evolutionary Resource-based Theory	-	-	**A**	-	-	**Y**	**Y**	**A**	**B**	**C**	**D**	SHRM can lead to competitive advantage under those conditions described by an evolutionary resource-based approach.	**Y**
Nogueras (2006)	**Y**	**Y**	**N**	**A**	Online survey	n=908	**Y**	Meyer & Allen (1991)	**Y**	-	**Y**	**Y**	**A**	**Q**	**S**	**A**	**B**	**C**	**D**	Organisations can utilise occupational commitment and intent to leave the profession to measure future workforce retention.	**Y**
O'Donoghue & Nelson (2007)	**Y**	**Y**	**L**	**A**	Interview	n=10	**Y**	Psychological Contract	**Y**	**Y**	**A**	**Q**	-	**Y**	**Y**	**A**	**B**	**C**	**D**	Organisations are perceived as obligated to provide credible support for professional contribution and perceived lack of support has significant impacts.	**Y**
O'Donoghue Donohue & Grimmer (2007)	**Y**	**Y**	**M**	**A**	Interview Q'naires	S1 n=8 S2 n=156	**Y**	Psychological Contracts	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Organisational justice and perceived organisational support were related to the nature of the psychological contract but perceptions of external employability were not.	**Y**

Raja, Johns & Ntalianis (2004)	**Y**	**Y**	**N**	**A**	Survey	n=197	**Y**	Psychological contract	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Personality characteristics tended to predict perceptions of contract breach and to moderate the relationship between those perceptions and feelings of contract violation. Both contract type and feelings of violation were associated with job satisfaction, organisational commitment, and intention to quit.	**Y**
Reiss (2012)	**Y**	**Y**	**L**	**A**	Review	-	**Y**	Multi-faceted theory	**N**	**-**	**A**	**-**	**-**	**Y**	**Y**	**A**	**B**	**C**	**D**	Dualistic theories divide motivation into two types: intrinsic and extrinsic. Researchers have moved beyond the study of intrinsic-extrinsic motivation and validated multifaceted theories.	**Y**
Redman & Snape (2005)	**Y**	**Y**	**M**	**A**	Interviews Focus Gp Survey	n = 6 n = 6 n=138	**Y**	OCB - Individual OCB - Organization	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	The pattern and outcomes of commitment are influenced by the nature of the job and by the work context.	**Y**
Ridder & McCandless (2010)	**Y**	**Y**	**L**	**A**	Lit. Review	-	**Y**	An Analytical Framework of HRM in Non-profit Organisations	**-**	**-**	**A**	**-**	**-**	**Y**	**Y**	**A**	**B**	**C**	**D**	Their analytical framework enables a better understanding of the relationship between the characteristics of NPOs and the architecture of HRM.	**Y**

Roots & Li (2013)	**Y**	**Y**	**L**	**A**	Lit. Review	**-**	**Y**	Guidelines for critical review Model of Retention equilibrium	**Y**	**Y**	**A**	**Q**	**-**	**Y**	**Y**	**A**	**B**	**C**	**D**	Attraction and retention of therapists was influenced by the level and availability of practice support, opportunities for professional growth and their understanding of the content of rural practice.	**Y**
Rosete (2006)	**Y**	**Y**	**N**	**A**	Survey	n=325	**Y**	Survey of Organisational Values	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Individuals who work in environments where a fit exists between org. values and performance management systems have a greater level of commitment than other individuals.	**Y**
Ryan & Deci (2000)	**Y**	**Y**	**L**	**A**	Lit. Review	-	**Y**	Cognitive Evaluation Theory Self-Detemination Theory	-	-	-	-	-	**Y**	**Y**	**A**	**B**	**C**	**D**	Social contextual condi-tions that support feelings of competence, autonomy and relatedness are the basis for maintaining intrinsic motivation, and becoming more self-determined in terms of extrinsic motivation.	**Y**
Schaufeli & Salanova (2011)	**Y**	**Y**	**L**	**A**	Review	-	**Y**	UWES Maslach Burnout Inventory (MBI)	**N**	-	**A**	-	-	**Y**	**Y**	**A**	**B**	**C**	**D**	Before embarking on any more empirical studies on work engagement, we should first think about the concept of 'work engagement' and its vicissitudes.	**Y**
Snape & Redman	**Y**	**Y**	**N**	**A**	Q'naire	n=678	**Y**	Occupational Commitment	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	The three component model provides valid and	**Y**

(2003)								Model											useful insights into the way that individuals are attached to their occupation.	
Snape & Redman (2010)	**Y**	**Y**	**N**	**A**	Q'naire	n=519	**Y**	SET OCB	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	There is a positive impact of HRM practices on OCB, through perceived job influence/discretion. There was no such effect for perceived organisational support.	**Y**
Stirling, Kilpatrick & Orpin (2011)	**Y**	**Y**	**M**	**A**	Interview & Survey	n=67 n=156	**Y**	Psychological Contract Theory (PCT)	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Relational expectations of the psychological contract could be used by organisations as a frame-work for developing management practices that fit the volunteer ethos.	**Y**
Sutton & Griffin (2004)	**Y**	**Y**	**N**	**A**	Q'naire	n=235	**Y**	Psychological Contract Theory (PCT)	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	The findings reinforce a positive relationship between job satisfaction and turnover supporting the use of separate and commensurate measures of pre-entry expectations and post-entry experiences, and the integration of all three constructs in models of job satisfaction.	**Y**
Thomas, Au & Ravlin (2003)	**Y**	**Y**	**L**	**A**	Lit. Review	-	**Y**	Psychological Contract Theory (PCT)	**N**	-	**A**	-	-	**Y**	**Y**	**A**	**B**	**C**	**D**	The PCT Literature made significant contributions in our understanding of the exchange relationship between employees and	**Y**

																			their employer. However, the influence of cultural differences on perceptions of the employment relationship has been neglected.	
Thomas (2009)	**Y**	**Y**	**L**	**A**	Lit. Review	**-**	**Y**	Psychological Contract Theory (PCT)	**N**	**-**	**A**	**-**	**-**	**Y**	**Y**	**A**	**B**	**C**	**D**	Cultural profiles of individuals influence (a) formation of the psycho-logical contract, (b) perceptions of violations of the psychological contract, and (c) responses to perceived violation	**Y**
Thompson (2011)	**Y**	**Y**	**L**	**A**	Lit. Review	**-**	**-**	Harvard Framework for HRM; CMS; DCT; HPP; HPWS	**-**	**-**	**A**	**-**	**-**	**Y**	**Y**	**A**	**B**	**C**	**D**	Provides an argument against some HR concepts. Argues for a nuts and bolts approach to managing people as most 'concepts; don't consider the impact of the environment beyond the organisation's control.	**Y**
Uhl-Bien, Marion & McKelvy (2007)	**Y**	**Y**	**L**	**A**	Lit. Review	**-**	**Y**	Complexity Theory of Leadership	**-**	**-**	**A**	**-**	**-**	**Y**	**Y**	**A**	**B**	**C**	**D**	The knowledge era calls for a new leadership paradigm. Complexity Leadership Theory recognizes that leadership is too complex to be de-scribed as only the act of an individual or individuals; rather, it is a complex interplay of many interacting forces.	**Y**

Van der Heijden, van Dam and Hasselhorn (2009)	**Y**	**Y**	**N**	**A**	Q'naire	n = 1187	**Y**	Research Model tested	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	An unsupportive work environment, poor leader-ship, and high work-to-home interference results in lower job satisfaction which predicted intention to leave when controlled for occupational commitment.	**Y**
Waldman (1994)	**Y**	**Y**	**L**	**A**	Lit. Review	-	**Y**	Total Quality Management Theory System Focused Model of Work Performance	-	-	**A**	-	-	**Y**	**Y**	**A**	**B**	**C**	**D**	There is an interplay between person and system factors and work performance.	**Y**
White & Bryson (2013)	**Y**	**Y**	**N**	**A**	Survey & Intervie w	n = 2295	**Y**	Work Motivation Theory	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Higher performance achievement through investing in HRM practices that help fulfil intrinsic work values influence employees attitudes to their jobs.	**Y**
Wingreen & Blanton (2007)	**Y**	**Y**	**L**	**A**	Lit. Review	-	**Y**	Social Cognitive Theory	-	-	**A**	-	-	**Y**	**Y**	**A**	**B**	**C**	**D**	Existing theory and practice is deficient in respect to dynamic models of person-organization fit. Social cognitive theory was used to develop a theoretical framework for person-organisation fit.	**Y**
Wright & Kehoe (2008)	**Y**	**Y**	**L**	**A**	Lit. review	-	**Y**	Human Capital Theory	**N**	-	**A**	**N**	-	**Y**	**Y**	**A**	**B**	**C**	**D**	In order to truly under-stand how HR practices impact performance all	**Y**

								Ease-of-movement framework Ability Opportunity Motivation Framework (AMO)											practices must be measured. Many practices don't meet AMO criteria but impact performance including these practices in HRM practice measures can help to more deeply understand how HRM systems influence employee commitment.	
Xerri (2013)	**Y**	**Y**	**M**	**A**	Survey Interview	n=104 n=12	**Y**	LMX	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Perceived organisational support mediates the relationship between the manager-employee exchange and innovative behaviour.	**Y**
Yukl (1971)	**Y**	**Y**	**L**	**A**	Lit. Review	-	**Y**	Fiedlers Contingency Model; Discrepency Model; and Multiple Linkage Model	**N**	-	-	**Q**	-	**Y**	**Y**	**A**	**B**	**C**	**D**	Despite over 20 years of research, the relationship of leader behaviour to subordinate productivity and satisfaction with the leader is still not clear.	**Y**
Zhao, Wayne, Glibkowski, Bravo (2007)	**Y**	**Y**	**N**	**A**	Meta-analysis	-	**Y**	Psychological Contract Theory (PCT)	**Y**	**Y**	**A**	**Q**	**S**	**Y**	**Y**	**A**	**B**	**C**	**D**	Quantitative synthesis of empirical research confirms the important role of the psychological contract in understanding workplace emotions, attitudes and behaviours.	**Y**

Con = Conclusions
Inc = Inclusion
Lit = Literature
Peer Rev = Peer Reviewed

Appendix D

Health Domain Themes & HRM Theories

Personal

Sub-theme	Factor	HRM Policy Choices			
		Employee Influence	**HR Flow**	**Reward Systems**	**Work Systems**
Characteristics, Traits, Background and Experience This sub-theme includes those factors that related to the health professional's characteristics, personality traits, background and experience.	Person-fit	◆	◆	◆	◆
	Rural Upbringing	◆	◆		
	Previous exposure to remote living	◆	◆		
	First qualification		◆	◆	
	Clinical placements		◆		◆
	Expectations and preconceptions	◆	◆	◆	
	Age	◆	◆		◆
	Self-reliance	◆			
	Personal isolation; loneliness	◆	◆		
	Responsiveness to a changing environment	◆	◆		
	Ability to cope with adversity	◆	◆		
	Highly developed problem-solving abilities	◆			◆
	Lack of control over their personal lives	◆			◆
	Community respect; sense of community	◆			
	Feeling valued	◆		◆	
	Job satisfaction; rewarding work	◆		◆	
Sub-theme	**Factor**	**HRM Policy Choices**			
		Employee Influence	**HR Flow**	**Reward Systems**	**Work Systems**
Personal – Family and Friends Family and friends provide support as well as obligations and responsibilities.	Friendships and social support	◆	◆		
	Conflicting relationships	◆	◆		◆
	Family responsibilities	◆	◆		
	Work/life balance	◆	◆		◆
	Family friendly workplace	◆	◆		◆
	Proximity of family and friends	◆	◆		
	Financial considerations	◆	◆	◆	◆
	Housing; childcare; children's education	◆	◆		◆
	Partner's employment	◆	◆		

Sub-theme	Factor	HRM Policy Choices			
		Employee Influence	HR Flow	Reward Systems	Work Systems
Personal – Health and Lifestyle Factors that influence decision-making and the work experience based on the person's health and lifestyle needs and expectations.	Climate		◆		◆
	Lifestyle attractive	◆	◆		◆
	Travel		◆	◆	◆
	Limited available resources	◆	◆	◆	◆
	High living costs	◆	◆		◆
	Excessive on-call responsibilities	◆	◆		◆
	Limited access to leave	◆	◆	◆	◆
	Stress	◆	◆		◆
	Feeling exhausted and overwhelmed; tired; fatigue; approaching burnout; 'use-by-date'	◆	◆		◆
	Personal safety	◆	◆		◆
	Distress	◆	◆		
	Self-care	◆	◆		
	Physical and emotional demands of the work	◆	◆		◆

Professional

Sub-theme	Factor	HRM Policy Choices			
		Employee Influence	HR Flow	Reward Systems	Work Systems
Professional – Role These factors are specific to their professional role but may overlap with other factors.	Clinical caseloads; Client-base.				◆
	Caseload Diversity; professionally challenging/opportunities				◆
	Financially sustainability	◆	◆	◆	◆
	Perceived ownership of patients	◆			◆
	Preparation for remote practice; clinical support; inter-disciplinary misunderstanding	◆	◆		◆
	Frustration with administrative tasks				◆
	Attracted to specific aspects of position; availability of remote work	◆	◆		
	Advanced practice roles; autonomy; independence; increased responsibilities; respect	◆			◆

	Excessive amount of unpaid work; long hours		◆		◆
	Flexibility; creativity; time management; general management skills	◆			
	Limited resources				◆

Sub-theme	Factor	HRM Policy Choices			
		Employee Influence	**HR Flow**	**Reward Systems**	**Work Systems**
Professional - Development The professional skill development needed to maintain and update competence.	Professional development (access)	◆		◆	◆
	Technology				
	Maintaining and/or upgrading skills; suitability for graduates; additional education for advanced roles.	◆			◆
	In-service training			◆	◆
	Orientation/Induction		◆		◆
	Paid professional development; conference attendance; post-graduate study leave; scholarships; formal and financial recognition of post-registration knowledge/skills			◆	◆
	Remote-specific qualifications	◆			◆
	Limited remote career paths		◆		◆

Sub-theme	Factor	HRM Policy Choices			
		Employee Influence	**HR Flow**	**Reward Systems**	**Work Systems**
Professional – Support Factors that provide professional support for those working in remote areas.	Sole positions; professional isolation				◆
	Supervision; mentoring; networking; peer support/recognition; professional support;				◆
	Expensive	◆	◆		

Organisational

Sub-theme	Factor	HRM Policy Choices			
		Employee Influence	**HR Flow**	**Reward Systems**	**Work Systems**
Organisational – Incentives and Benefits	Paid professional development; study leave; conference		◆	◆	◆

Benefits offered to attract and retain health professionals.	attendance; additional annual leave; financial consideration for being on-call 24-hours a day; accommodation.				
	Retention payments; financial incentives; annual airfares; subsidies (education, relocation, travel, childcare).			◆	
	Salary packaging; tax rebates or incentives	◆		◆	
	Remuneration; entitlements that reflect remote practice; inequalities in remuneration between disciplines.			◆	
Sub-theme	**Factor**	**HRM Policy Choices**			
		Employee Influence	**HR Flow**	**Reward Systems**	**Work Systems**
Organisational – Management Factors directly associated with management practices of the organisation.	Dissatisfaction with management practices; lack of advocacy, management support and/or recognition; communication	◆	◆		◆
	Organisational barriers; unrealistic expectations; localised decision-making; management skills; flexible hours; family friendly rostering.	◆	◆		◆
	Inappropriate line supervision; relationship with supervisor.	◆			◆
	Inadequate clinical facilities/resources; restricted access to vehicles; poor visiting services co-ordination.				◆
	Recruitment; insufficient workforce; vacancies; inadequate backfill; supporting visiting services; sufficient preparation; orientation		◆		◆
	Good governance; consistent working conditions; visionary leadership; role clarity; teamwork				◆

Contextual

Sub-theme	Factor	HRM Policy Choices			
		Employee Influence	**HR Flow**	**Reward Systems**	**Work Systems**
Contextual – Responsive to environment Working in remote regions requires health professionals to have skills so that they are responsive to the remote environment.	Diversity of clients and illnesses.				◆
	Culturally diversity; cultural awareness; cultural knowledge; culturally congruent healthcare				◆
	Appropriate language				◆
	Community focus rather than a medical focus; nurturing community relationships				◆

Sub-theme	Factor	HRM Policy Choices			
		Employee Influence	**HR Flow**	**Reward Systems**	**Work Systems**
Contextual - Remote consider-ations Remote regions hold many challenges for the local population that are also experienced by health professionals,	Large geographical areas; travelling reduces clinical time; seasonal hazards e.g. impassable roads; reduced access to resources		◆		◆
	Personal-professional conflict through patient-practitioner inter-relationships; lack of anonymity; intimacy of small towns can lead to role conflict; tiring.	◆	◆		◆
	Exciting, rewarding; opportunity to work with Aboriginal people; understanding the realities and rewards of remote practice.	◆	◆	◆	◆

Appendix E

A Sustainable Remote Health Workforce
Part A: Online Questionnaire

Questions

Section 1: The following statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, tick the box under "0" (zero). If you have had this feeling, indicate how often you feel it by selecting the number (from 1 to 6) that best describes how frequently you feel that way.

	Never	Almost Never	Rarely	Some times	Often	Very often	Always
At my work, I feel bursting with energy	**0**	**1**	**2**	**3**	**4**	**5**	**6**
At work, I feel strong and enthusiastic	**0**	**1**	**2**	**3**	**4**	**5**	**6**
I find the work that I do full of meaning	**0**	**1**	**2**	**3**	**4**	**5**	**6**
I feel happy when I work intensely	**0**	**1**	**2**	**3**	**4**	**5**	**6**
I am proud of the work that I do	**0**	**1**	**2**	**3**	**4**	**5**	**6**
Time flies when I am working	**0**	**1**	**2**	**3**	**4**	**5**	**6**
My job is challenging	**0**	**1**	**2**	**3**	**4**	**5**	**6**
When I get up, I feel like going to work	**0**	**1**	**2**	**3**	**4**	**5**	**6**
I get carried away with my work	**0**	**1**	**2**	**3**	**4**	**5**	**6**

Section 2: This section is about your current employment experience in a remote region

Why did you choose to work in a remote region?

Now that you are working in a remote region, is the work as you expected?
Please describe the aspects of the work that have met your expectations and those aspects that are different from your expectations

What do you like best about working in a remote region?

What are the greatest challenges of working in a remote region?

Section 3: Please click the box accordingly to how strongly you agree or disagree with the statements.

Question	Strongly Agree					Strongly Disagree
My employer has a formal values and mission statement	**1**	**2**	**3**	**4**	**5**	**6**
My co-workers respect my skills and experience	**1**	**2**	**3**	**4**	**5**	**6**
I believe that changing jobs makes life interesting	**1**	**2**	**3**	**4**	**5**	**6**
Working with this employer makes me feel proud	**1**	**2**	**3**	**4**	**5**	**6**
I have a close relationship with my supervisor/manager	**1**	**2**	**3**	**4**	**5**	**6**
I feel my job is secure	**1**	**2**	**3**	**4**	**5**	**6**
I have great respect for my supervisor/manager	**1**	**2**	**3**	**4**	**5**	**6**
I feel loyal to my employer	**1**	**2**	**3**	**4**	**5**	**6**
I am satisfied with the salary I receive for the work I do	**1**	**2**	**3**	**4**	**5**	**6**
The offer of more money with another employer would make me think of changing my job	**1**	**2**	**3**	**4**	**5**	**6**
My employer has kept its promises	**1**	**2**	**3**	**4**	**5**	**6**
I know my employer's values and mission statement	**1**	**2**	**3**	**4**	**5**	**6**
My employer provides adequately for my personal safety	**1**	**2**	**3**	**4**	**5**	**6**
Management involve people when they make decisions that affect them	**1**	**2**	**3**	**4**	**5**	**6**
I trust management to look after my best interests	**1**	**2**	**3**	**4**	**5**	**6**
My family want me to find a job closer to them	**1**	**2**	**3**	**4**	**5**	**6**
I respect my co-workers	**1**	**2**	**3**	**4**	**5**	**6**
I feel I would lose valuable relationships with people at work by leaving	**1**	**2**	**3**	**4**	**5**	**6**
My employer has broken promises to me about promotions	**1**	**2**	**3**	**4**	**5**	**6**
If I left this job, I will have wasted my time here	**1**	**2**	**3**	**4**	**5**	**6**
I believe an employee should always be loyal to their employer	**1**	**2**	**3**	**4**	**5**	**6**
My co-workers can help me with my career	**1**	**2**	**3**	**4**	**5**	**6**
My employer has broken promises to me about work activities	**1**	**2**	**3**	**4**	**5**	**6**
It would be hard for me to leave this job now	**1**	**2**	**3**	**4**	**5**	**6**
My supervisor/manager will really help my career	**1**	**2**	**3**	**4**	**5**	**6**
My friends want me to get a job where I could live closer to them	**1**	**2**	**3**	**4**	**5**	**6**
I don't want to risk having bad co-workers at another organisation	**1**	**2**	**3**	**4**	**5**	**6**
I believe that it is bad when people move from job to job	**1**	**2**	**3**	**4**	**5**	**6**
My supervisor/manager helps me a lot at work	**1**	**2**	**3**	**4**	**5**	**6**

Question	Strongly Agree					Strongly Disagree
My employer provides backfill/relief staff when I take leave	**1**	**2**	**3**	**4**	**5**	**6**
My employer provides study leave so that I can attend training	**1**	**2**	**3**	**4**	**5**	**6**
My employer provides adequate compensation for the amount of on-call work they expect	**1**	**2**	**3**	**4**	**5**	**6**
There is adequate access to annual/recreation leave	**1**	**2**	**3**	**4**	**5**	**6**
My employer provides regular professional supervision	**1**	**2**	**3**	**4**	**5**	**6**
I am happy with the accommodation provided by my employer when I live and/or travel in a remote area	**1**	**2**	**3**	**4**	**5**	**6**
I have all the resources that I need to do my job	**1**	**2**	**3**	**4**	**5**	**6**
I feel fairly rewarded for the amount of effort I put into my job	**1**	**2**	**3**	**4**	**5**	**6**
I am provided with sufficient opportunities for training and development	**1**	**2**	**3**	**4**	**5**	**6**
With this employer I can achieve my career goals	**1**	**2**	**3**	**4**	**5**	**6**
This workplace/department is understaffed	**1**	**2**	**3**	**4**	**5**	**6**
My supervisor/manager keeps me informed about workplace issues	**1**	**2**	**3**	**4**	**5**	**6**
It is difficult to take leave from my remote workplace	**1**	**2**	**3**	**4**	**5**	**6**
There is a clear status difference between management and staff	**1**	**2**	**3**	**4**	**5**	**6**
My employer has always supported me	**1**	**2**	**3**	**4**	**5**	**6**
It would be easy to find a job that pays better than mine	**1**	**2**	**3**	**4**	**5**	**6**
This employer lets me grow and develop professionally	**1**	**2**	**3**	**4**	**5**	**6**
People doing my job at other organisations get paid better	**1**	**2**	**3**	**4**	**5**	**6**
My employer understands the demands of remote travel	**1**	**2**	**3**	**4**	**5**	**6**
The orientation/induction, provided by my employer prepared me for this job	**1**	**2**	**3**	**4**	**5**	**6**
I would like to move away from this place	**1**	**2**	**3**	**4**	**5**	**6**
My job has clear boundaries	**1**	**2**	**3**	**4**	**5**	**6**
My manager has experience working in a remote region	**1**	**2**	**3**	**4**	**5**	**6**
My role includes an unreasonable amount of on-call responsibilities	**1**	**2**	**3**	**4**	**5**	**6**
I can make my own decisions in carrying out my job	**1**	**2**	**3**	**4**	**5**	**6**
I hate living in this part of Australia	**1**	**2**	**3**	**4**	**5**	**6**
My actual role is very similar to my job description	**1**	**2**	**3**	**4**	**5**	**6**
I can use my personal judgment in carrying out my job	**1**	**2**	**3**	**4**	**5**	**6**

A rigorous selection process is used to recruit and select new people	**1**	**2**	**3**	**4**	**5**	**6**
I am under a lot of pressure in my job	**1**	**2**	**3**	**4**	**5**	**6**
My supervisor/manager understands what I do in my job	**1**	**2**	**3**	**4**	**5**	**6**

Section 4: This section will collect some non-identifiable information about you and your employment.

Region: ☐ QLD ☐ NT ☐ WA

Gender: ☐ MALE ☐ FEMALE

Age:
- ☐ 19 years and under
- ☐ 20 -29 years
- ☐ 30-39 years
- ☐ 40-49 years
- ☐ 50-59 years
- ☐ 60-69 years
- ☐ 70 years +

Which of the following best describes the location where you work most of the time?
- ☐ Very Remote (eg remote Aboriginal community, island location, outstations)
- ☐ Remote Small Town (eg Coen, Julia Creek, Fitzroy Crossing, Halls Creek, Jabiru)
- ☐ Remote Regional Centre (eg Broome, Mt Isa, Weipa, Cooktown, Kununurra)

Which of the following best describes the way that you do your work?
- ☐ I live and work in a very remote area
- ☐ FIFO/DIDO to very remote areas and live in a remote regional centre
- ☐ FIFO/DIDO to remote/very remote areas and live in a urban city
- ☐ Other (please explain)

_____

Occupation:
- ☐ Allied Health (please provide discipline) _____
- ☐ Dentist
- ☐ Doctor – GP
- ☐ Doctor – Specialist
- ☐ Indigenous Health Worker
- ☐ Nurse (please specify whether RAN, DON, CNC, RN, EN or other)
- ☐ Other (please explain) _____

Please provide the name of the town/city where the university/college in which you attained your first qualification is located _____

Did you undertake a rural or remote clinical placement prior to your first paid remote position? ☐ YES ☐ NO

Prior to this position, have you ever lived in a remote area before?

- **☐ No, this is the first time I have lived in a remote area**
- **☐ Yes, I lived in a remote area as a child**
- **☐ Yes, I lived with my partner who has worked in a remote area previously**
- **☐ Yes, I have worked in a remote area previously in Australia**
- **☐ Yes, I have worked in a remote area previously in another country**

How long have you been in your current role?

How long have you worked for your current employer?

How long have you worked in a remote area with your current employer?

Does your current position have formal management responsibilities?

Prior to this position had you worked in a remote area before?

If yes, was this with your current employer?

If no, which of the following best describes your previous employer:

- **☐ Aboriginal Controlled Health Organisation**
- **☐ Employment/Recruitment Agency**
- **☐ NGO**
- **☐ State health department**
- **☐ Other** (please explain)

Have you received additional annual leave benefits from your employer?
Have you received a remote area incentive payment from your employer?
Have you received a free annual flight home or to an urban location of your choice?

Please give a brief summary of your previous work experience in a remote area

Finally, this project is called a *Sustainable Remote Health Workforce*. In your own words, describe how the remote health workforce could be sustainable?

Final Page:

This questionnaire will be distributed again in one year's time and I would like to link questionnaires completed by the same person without collecting any identifiable information. The following ID code will enable this linkage and your identity will remain confidential.

To work out your ID code, please combine the following pieces of information:
<the state in which you work> <the first three letters of your surname> <the date and year of your birth>

For example, Jane Smith is based in WA and born on 25 April 1975, her ID code would be **<WA> <SMI> <251975>** and so combined it would be **WASMI251975.**

When you have worked out you ID code, please write it in the box below (optional).

Appendix F

A Sustainable Remote Health Workforce: Translating Policy into Practice
Interview Questions

1. Can you please tell me a little about yourself – your experience working in remote regions and managing staff working in remote areas

2. Can you think of 5 words that best describe your experience working in a remote area

3. If you were a health professional working in a remote area how do you think they would describe working for this organisation – what would be their 5 words?

4. Does your organisation have a vision, values or a mission statement?

5. Do you think that most employees working in remote areas are familiar with these?

6. Could you tell me about your recruitment process for remote workplaces?

7. When you think about remote appointments, how would you describe the success rate, in terms of turnover, retention and costs? Is there anything else that you think is critical when considering the success of a remote appointment?

8. How are remote employees supported in terms of professional development and training?

9. Many organisations have creative strategies and have implemented innovative programs to attract and retain health professionals in remote regional Australia over the years. Are you aware of any innovative ideas that have been developed and/or implemented at your organisation to attract or retain health professionals? Could you tell me more about them, regardless of whether or not they were successful?

10. This study is called a sustainable remote health workforce. How would you describe a sustainable remote health workforce?

11. We have covered quite a lot today and I appreciate your time. Before we finish this interview, is there anything else that you think it is important for me to consider in the study – it can be about your organisation or the remote workforce more generally.

Thank-you for your time it has been a please to speak with you. You have a copy of the information sheet to keep, please contact me if you think of anything else that may be helpful for this study or if you have any further questions.

Appendix G

HRM Constructs – Interview Data Coding Guide

HRM Construct	Definition ***Examples***
Autonomy	Freedom from external control or influence; independence *Autonomy; 'I did ...' statements*
Embeddedness	Embedded in organisation, community or location *Connections; links to place; adjustment; opposite of embed (e.g. transience)*
Job Satisfaction	Employee is satisfied with all aspects of the job *Job satisfaction; rewarding (looking at the way they use the term job satisfaction)*
Job Security	Feeling that employment is secure *ongoing employment; continuity of employment; contracts; things that influence job security*
Justice	Includes distributive, procedural and interactional justice *Equity; fairness*
Leader Member Exchange (LMX)	The quality of exchange between the employee and the manager *Leadership; knowledge of employees (knows what they do, how and why they do it); can approach manager; discusses issues with manager*
Mastery	Developing competency necessary for remote work and/or management *Experience; qualification; competence*
Occupational Commitment	Comments specific to occupation *Only nurses can manage nurses*
Organisational Citizenship Behaviour (OCB)	Going beyond the work requirements *Additional unpaid hours*
Organisational Commitment	The strength of an employee's attachment to the organization *Values; vision; mission; compliance; best practice;*
Perception of Support (POS)	POS focuses on the exchange relationship between the employee and the employer. *Perceived support from manager; org; colleagues; system*
Person-Organisation Fit	The closeness of the person's characteristics to those needed for the role Previous remote experience; personality
Relatedness	Connection by kinship, humans with something in common (e.g. workplace, origin) Family related issues; getting along with other
Work Conditions	Work related conditions/benefits/incentives *Personal safety; management transition; pay; incentives; 'the politics'; career paths; work systems*
Work Engagement	A positive, fulfilling work-related state of mind *Challenging (looking at the way they use the work challenging given the second factor loading in the questionnaire data)*

Appendix H

Espoused HRM Policy - Review of Recruitment documentation on websites

HRM Policy	State Govt			NGO			ACCHO		
	WA	QLD	NT	WA	QLD	NT	WA	QLD	NT
Benefits / Incentives - General									
Salary sacrificing or packaging	◆	◆	◆	◆	◆	◆		◆	
Zone or special area tax offset	◆	◆	◆	◆	◆	◆	◆	◆	◆
Superannuation (up to 12.5% of your annual salary) is provided		◆							
Above Average Salary / Attractive salary								◆	
On call and/or recall allowance	◆							◆	
Higher duties	◆	◆	◆						
Parental leave	◆	◆	◆			◆			
Additional Annual leave (5 weeks/25 days)	◆			◆				◆	
Additional Annual leave (6 weeks/30 days)			◆			◆			
Leave Loading (17.5%)	◆	◆	◆						
Public holiday leave (10 days or 11 days[a]) + regional show day	◆	◆	◆[a]				◆		
Personal leave / Sick leave (10 days)	◆	◆						◆	
Personal leave (12 days)			◆			◆			
Travel allowance (reasonable expenses reimbursed)	◆	◆	◆			◆			
Long service leave (13 weeks every 10 years, then every 7 years)	◆	◆	◆					◆	
Natural Disaster / Emergency Leave (2 or 3 days)		◆				◆		◆[b]	
Bereavement / Compassionate leave (2 days per bereavement)	◆					◆		◆	
Travelling time (time off in lieu)	◆	◆	◆					◆	
Relieving/special duty allowance (reasonable expenses reimbursed)	◆								

Cultural ceremony leave	◆		◆					◆	
Mandatory continuing professional development (CPD) training to maintain registration								◆	
Orientation	◆	◆	◆		◆	◆		◆	◆
Retention allowance			◆						
NT allowance			◆						
Low Flying Allowance (perform duties at a height of 700 metres or less above ground)			◆						
Flexible work practices			◆		◆	◆		◆	◆
Performance Management			◆					◆	◆
Merit-based appointments	◆	◆	◆						◆
Career Development Pathway			◆		◆	◆			◆
Diversity			◆		◆				
Identified positions (targeted recruitment)			◆						◆
Professional Development	◆	◆	◆	◆	◆		◆	◆	◆
Staff Security in the workplace									◆
Student/Training Placements	◆	◆	◆		◆		◆		◆
Supervision								◆	
TOIL	◆	◆	◆			◆		◆	
Uniform provided	◆							◆	
Community Service Leave						◆		◆	
Immigration sponsorship for 457 visa applicants	◆				◆				
Study Leave					◆	◆			
Probation	◆	◆	◆		◆	◆		◆	
Bush Support			◆			◆			

EAP	◆	◆	◆						
Benefits / Incentives - Medical Practitioners									
Professional development allowance	◆								
HECS Reimbursement Scheme	◆								
Registrars Rural Incentive Payments Scheme (Average: $34,500 per annum) plus award entitlements (Q)	◆		◆			◆			
Remote Area Employment Incentive Grants	◆								
Rural Retention Program	◆	◆	◆			◆	◆	◆	◆
Training for Rural and Remote Procedural GPs program	◆						◆		
Private practice income allowance (Arrangement A)	◆								
Teaching opportunities	◆								
Professional indemnity insurance cover	◆	◆							
Fatigue Management		◆						◆	
Vehicle (including servicing & Fuel) (Medical)			◆						
GP Spouse Bursary						◆			
Benefits / Incentives - Nurses (RN, RM, EN)									
Higher duty allowance (after 5 days)	◆	◆	◆						
Professional development leave (16 hours/2 days per year)	◆								
Postgraduate qualification allowance	◆								
Study leave (5 hours per week; work-life balance)	◆								
Distant appointment allowance	◆								
Transfer allowance	◆								
Disturbance allowance	◆								
Removal allowance	◆								
Relieving/special duty allowance (reasonable expenses reimbursed)	◆								

Bringing Nurses Back into the Workforce bonus	◆								
Midwifery scholarships					◆				
Benefits / Incentives - Allied Health									
Professional development leave (16 hours/2 days per year)	◆								
Study leave (5 hours per week; work-life balance)	◆								
Allied health - rural and remote districts allowance (extra $60 to $100 per week).		◆							
Clinical on call allowance		◆							
Permanent allied health professionals receive a fortnightly professional development allowance of $1500, $2000 or $2500 per year (metro/regional, rural or remote respectively)		◆							
Clinical education allowance of $10 per day, up to a maximum of $100 per fortnight		◆							
Paid licence fees for employees required to hold a licence under the Radiation Safety Act 1999		◆							
A professional development incentive of up to $1500 per annum		◆							
Rural allowance for permanent residents ($100 per week)		◆							
Professional Development allowance: 1-5 years continuous service (up to $555 per annum) > 5 years continuous service (up to $1221 per annum)			◆						
Benefits / Incentives (General)- Remote Health Professionals									
Air-conditioning subsidies	◆		◆						
Subsidised rental accommodation	◆	◆	◆						
Free accommodation		◆							
Home Ownership Subsidy Scheme	◆								
Additional professional development leave and travel		◆	◆						
Additional leave allowances (Nurses/ midwives permanently located in eligible remote districts)		◆							

Airfares to the nearest coastal centre (Nurses/midwives permanently in remote districts)		◆							
Bonus payments for years of continuous service		◆							
When government accommodation is provided, the accommodation charge (usually referred to as board) is to be waived for a period of up to 17 months from the date of commencement		◆							
When commercial rental accommodation is accessed, $82.50 per week is to be paid for a period of up to 17 months from the date of commencing duty at the centre or facility		◆							
Dental rural incentive package (ZONE 3 = 30% base salary)		◆							
Additional annual leave (1 additional week)	◆								
Annual leave travel concessions	◆								
Annual leave travel time (if headquarters situated 240 km or more from Perth GPO)	◆								
District allowance	◆		◆						
Additional professional development leave (1 extra day if working 200-400 km from Perth General Post Office, 2 days if working more than 400 km from GPO)	◆								
Rural gratuity (8 weeks pay after 2 years, then 4 weeks pay annually)	◆								
Child allowance ($100 per child, maximum $400)	◆								
Gas subsidies for Government Regional Officers Housing equipped with gas hot water systems	◆								
Fares Out of Isolated Locality - FOIL			◆						
Weekly allowance for freight of household goods (Nhulunbuy and Yirrkala)			◆						
Family Travel Assistance			◆						
Water concessions			◆						
Remote Allowance of $2860 per annum (permanently reside in remote communities and are not in receipt of accommodation / accommodation subsidies from their Employer)								◆	

Remote Allowance					◆				
Benefits / Incentives - Remote Area Nurses (RANs)									
Isolation leave (1 additional week of leave every 12 weeks)	◆								
Remote area availability allowance	◆								
Remote area overtime allowance (25% base salary)	◆								
Remote area staff development (additional 2 weeks in-service training: 1 week in major centre, funded travel, accommodation and daily allowance)	◆								
Professional development allowance (up to $2,500)		◆							
Paid professional development leave with paid travel and course/conference costs		◆							
Relocation costs paid		◆			◆	◆			
Fly in – fly out (with spouse and dependants) with recreation leave twice per annum		◆							
Annual Isolation Bonus payments for each year of service. After 1 year: $3,500. After 2 years: $10,500. Each year after 3 years: $7,000		◆							
Ability to “buy” additional leave		◆							
Support for learning through scholarships and transition programs		◆							
Recognition of relevant qualifications through generous allowances		◆							

Appendix I

Recruitment Advertisements
Data Collection and Data Coding Checklist

Coding	Variable
Demographics	
0 = NO 1 = YES	No Evidence of HRM Policies
0 = NO 1 = YES	Manager* (Y/N)
0 = Other 1 = Nurse 2 = Allied Health 3 = Doctor 4 = Indigenous 5 = Cross-Discipline	Other includes professional, technician/AO roles Cross Discipline (e.g. nurse or allied health)
0 = Unknown 1 = Permanent 2 = Temporary	Work Type
0 = Unknown 1 = Full-time 2 = Part-time 3 = Casual	Full-time Equivalent (FTE)
0 = Unknown 1 = Government 2 = NGO 3 = ACCHO 4 = Agency	Advertiser (Employer)
0 = NO 1 = YES	Describes Location – Y/N
0 = Geography 1 = Community 2 = Climate 3 = Indigenous	If Yes, how is it described
0 = NO 1 = YES	Salary Sacrifice/Salary Packaging
0 = NO 1 = YES	Probation
[TEXT]	Employee Benefits
[number]	No. of weeks leave
0 = NO 1 = YES	Remote Allowance – Y/N
[number]	Remote Allowance – $
0 = NO 1 = YES	Airfares – Y/N
[number]	Airfares – $
0 = NO 1 = YES	Accommodation – Y/N

0 = NOT INCLUDED 1 = YES, INCLUDED 2 = SUBSIDISED 3 = NEGOTIABLE 4 = FREE 5 = FREE/SUBS 6 = RENTAL ALLOWANCE/ ASSISTANCE	Accommodation description of benefit
0 = NO 1 = YES	Professional Development –Y/N
0 = NO 1 = YES	Study leave – Y/N
[number]	Study leave – $
0 = NO 1 = YES	RANIP – Y/N
0 = NO 1 = YES	A/C or electricity subsidy – Y/N
[number]	A/C or electricity subsidy ($)
1 = YES 2 = ASSISTANCE 3 = REIMBURSEMENT 4 = RELOCATION & REPATRIATION 5 = NEGOTIABLE	Relocation
0 = NO 1 = YES	Professional Allowances
0 = NO 1 = YES	Qualification Allowance
[coded]	Incentive (see separate table)
0 = None listed 1 = Mandatory 2 = Desirable	Clinical Qualifications
0 = None listed 1 = Mandatory 2 = Desirable	Clinical Registration required to professional body
0 = None listed 1 = Mandatory 2 = Desirable	Management Qualifications
0 = None listed 1 = Mandatory 2 = Desirable	Management Experience
0 = None listed 1 = Mandatory 2 = Desirable	Experience in a similar Role
0 = None listed 1 = Mandatory 2 = Desirable	Experience in a remote region
0 = NO 1 = YES	Award mentioned
0 = NO 1 = YES	Oncall – Y/N

0 = NO 1 = YES 2 = ALLOWANCE	Oncall (Paid)
0 = NO 1 = YES	Job Security
0 = NO 1 = YES	Support – Y/N
[TEXT]	Support (Text)
0 = NO 1 = YES	Supervision (Y/N)
0 = NO 1 = YES	Career Advancement (Y/N)
0 = NO 1 = YES	Values listed – Y/N
[TEXT]	Values (text)
0 = NO 1 = YES	Vision listed – Y/N
[TEXT]	Vision (text)
0 = NO 1 = YES	Mission/Purpose Statement – Y/N
[TEXT]	Mission/Purpose Statement (text)
[TEXT]	Autonomy
[TEXT]	Challenge
[TEXT]	Specific information about remote work – Y/N
[TEXT]	Specific reference to HRM
0 = NO 1 = YES	Flexible Working Conditions
0 = NO 1 = YES	Mentor / Supervision
0 = NO 1 = YES	Understanding of Cultural Issues
0 = NO 1 = YES	Cultural Diversity
0 = NO 1 = YES	Smoke free workplace
0 = NO 1 = YES	Eliminating discrimination / EEO Employer
0 = NO 1 = YES	Preference for a permanent resident / Australian citizen
0 = NO 1 = YES 2=health	Pre Employment screening
0 = NO 1 = YES	Criminal History Check
0 = NO 1 = YES	Working with Children (Blue card / Ochre card)
0 = NO 1 = YES	OHS, EEO, Code of Conduct, Perf. Mgt., disability services act, confidentiality agreement
0 = NO 1 = YES	OHS

Appendix J

Espoused HRM Policies - Incentives

1	**Annual Isolation Bonus**
2	**Bonus**
3	**FOIL**
4	**Gratuity Payment after 12 months**
5	**Gratuity Payment after 2 years**
6	**25% base rate in lieu of OT / OT allowance**
7	**QANTAS Frequent Flyer points**
8	**Uniforms (Free/allowance)**
9	**Paid day off for birthday**
10	**Travel Allowance / incentives**
11	**Bonus at completion of placement**
12	**No weekend work**
13	**Referral Bonus**
14	**Inaccessibility incentive**
15	**Private practice arrangements**
16	**Isolation leave**
17	**Professional development / Training**
18	**Financial incentives**
19	**Tax benefits**
20	**Vehicle / vehicle allowance**
21	**Managerial bonus / medical managers allowance**
22	**Availability Allowance**
23	**Performance Bonus**
24	**Travel (opportunity to travel) / experience**
25	**Utilities covered (or subsidised) / phone line**
26	**Subsidised meals**
27	**Indemnity insurance reimbursed**
28	**Shift allowance**
29	**Badge**
30	**Communications package (phone, laptop, internet access)**
31	**Doctor's package (communication, vehicles, prof. dvlpt, incentive payments etc.)**
32	**Free criminal history check**
33	**Overtime**
34	**Gym membership**
35	**Free dentistry**
36	**Allowances (general)**
37	**HECS reimbursement (33% for each year)**
38	**Additional Leave**
39	**Free car parking**
40	**Public Holidays as paid days off**
41	**Sponsorship**
42	**Iconic Organisation**
43	**Attraction Allowance**
44	**Mobile phone allowance**
45	**Petrol allowance (weekly)**
46	**Induction training**
47	**High salary/above award rates**
48	**Incentive program**
49	**Recreation facilities**
50	**DISINCENTIVE (e.g. no meal allowances)**
51	**Corporate health plan**
52	**People (Agency staff) familiar with the region**
53	**Spouse employment / assistance**

Appendix K

SRHW – Description of Interview Participants

There were 24 interviews. The participants were either providing services in remote regions, were managing health professional in remote regions or influenced HRM policy regarding the management of health professionals in remote regions of tropical northern Australia.

9 participants	Managers with no clinical responsibility in their current role.
8 participants	Health Professionals providing health services in remote regions (current clinical responsibilities)
7 participants	Six managers were also providing health services as part of their role at the time of interview. One health professional had extensive previous experience in a Management role (DON)

Therefore 16 management perspectives & 15 health professional perspectives were obtained, with seven participants providing a dual perspective.

Code	Position Name	Health Discipline	State
Managers			
P2	HR Manager	HRM	QLD
P3	Executive Director	Nursing	QLD
P6	HR Manager	Recruitment	AUST
P9	Executive Director	Nursing	QLD
P10	HR Manager	HRM	WA
P11	HR Manager	HRM	QLD
P14	HR Director	HRM	QLD
P18	CEO/ Executive Director	Nursing	QLD
P22	Nurse Manager	Nursing	QLD
P1	Health Service Manager	Nursing	NT
P5	CEO	Nursing	WA
P12	Director of Nursing	Nursing	WA
P13	Governance / Health Professional	Medicine	AUST
P17	Director of Nursing	Nursing	NT
P15	Director of Nursing	Nursing	QLD
Health Professional with longevity in remote regions			
P8	Nurse Educator	Educator / previous DON experience	QLD
P4	General Practitioner	Medicine	NT
P7	General Practitioner	Medicine	NT
P16	Mental Health clinician	Allied Health (Also, overseas trained nurse)	QLD
P19	Social Worker	Allied Health	QLD
P20	Nurse	Overseas trained	QLD
P21	Dentist	Allied Health	QLD
P23	Physiotherapist	Allied Health; small town.	QLD
P24	Nurse Practitioner	Nursing	QLD

Appendix L

SRHW Online Questionnaire
Data Dictionary

Code	Question	Comments
Section 1: Work Engagement		
WE1_V	At my work, I feel bursting with energy	V = Vigour
WE2_V	At work, I feel strong and enthusiastic	V = Vigour
WE3_D	I find the work that I do full of meaning	D = Dedication
WE4_A	I feel happy when I work intensely	A = Absorption
WE5_D	I am proud of the work that I do	D = Dedication
WE6_A	Time flies when I am working	A = Absorption
WE7_D	My job is challenging	D = Dedication
WE8_V	When I get up, I feel like going to work	V = Vigour
WE9_A	I get carried away with my work	A = Absorption
Section 2: This section is about your current employment experience in a remote region		
WHYRR [Text]	**Why did you choose to work in a remote region?**	
EXPECT [Text]	**Now that you are working in a remote region, is the work as you expected?** Please describe the aspects of the work that have met your expectations and those aspects that are different from your expectations	
BESTRR [Text]	**What do you like best about working in a remote region?**	
CHALLRR [Text]	**What are the greatest challenges of working in a remote region?**	
Section 3:	**1=Strongly Agree** **2=Somewhat Agree** **3=Agree** **4=Disagree** **5=Somewhat Disagree** **6=Strongly Disagree**	
VALUES	My employer has a formal values and mission statement	
RESPECT_ME	My co-workers respect my skills and experience	
CHANG_INTER	I believe that changing jobs makes life interesting	
PROUD	Working with this employer makes me feel proud	
CLOSE_MGR	I have a close relationship with my supervisor/manager	
SECURE	I feel my job is secure	
RESPECT_MGR	I have great respect for my supervisor/manager	
LOYAL_ER	I feel loyal to my employer	
SATIS_SALARY	I am satisfied with the salary I receive for the work I do	
MORE$	The offer of more money with another employer would make me think of changing my job	
SATISFY	My work is satisfying	
KNOW_VALUES	I know my employer's values and mission statement	
PERS_SAFETY	My employer provides adequately for my personal safety	
INVOLVE_DECIS	Management involve people when they make decisions that affect them	
TRUST_MGT	I trust management to look after my best interests	

NEAR_FAMILY	My family want me to find a job closer to them
RESPECT_COWR	I respect my co-workers
LOSE_RSHIPS	I feel I would lose valuable relationships with people at work by leaving
BRKN_PROMO	My employer has broken promises to me about promotions
WASTED_TIME	If I left this job, I will have wasted my time here
LOYAL_2ER	I believe an employee should always be loyal to their employer
CWKRS_CAREER	My co-workers can help me with my career
BRKN_WKATVY	My employer has broken promises to me about work activities
HARD_2LVE	It would be hard for me to leave this job now
MGR_CAREER	My supervisor/manager will really help my career
CLOSE_FRIENDS	My friends want me to get a job where I could live closer to them
RISK_BAD_CWKR	I don't want to risk having bad co-workers at another organisation
JOB2JOB	I believe that it is bad when people move from job to job
MGR_HELPS_ME	My supervisor/manager helps me a lot at work
BACKFILL_LVE	My employer provides backfill/relief staff when I take leave
STUDY_LVE	My employer provides study leave so that I can attend training
ONCALL_COMP	My employer provides adequate compensation for the amount of on-call work they expect
ADEQ_LVE	There is adequate access to annual/recreation leave
SPVN_PROVIDED	My employer provides regular professional supervision
HAPPY_ACCOM	I am happy with the accommodation provided by my employer when I live and/or travel in a remote area
ALL_RESOURCES	I have all the resources that I need to do my job
FAIR_REWARD	I feel fairly rewarded for the amount of effort I put into my job
SUFF_TRAIN	I am provided with sufficient opportunities for training and development
ACHIEVE_GOALS	With this employer I can achieve my career goals
UNDERSTAFFED	This workplace/department is understaffed
MGR_INFORMED	My supervisor/manager keeps me informed about workplace issues
DIFF_LVE	It is difficult to take leave from my remote workplace
STATUS_DIFF	There is a clear status difference between management and staff
ER_SUPPORT	My employer has always supported me
BETTER_PAY_THAN	It would be easy to find a job that pays better than mine
GROW_PROF	This employer lets me grow and develop professionally
BETTER_PAY_OTHER	People doing my job at other organisations get paid better
DEMAND_TRAVEL	My employer understands the demands of remote travel
ORIENT_PREP	The orientation/induction, provided by my employer prepared me for this job
MOVE_AWAY	I would like to move away from this place
CLEAR_BOUND	My job has clear boundaries
MGR_RR_EXP	My manager has experience working in a remote region
UNREAS_ONCALL	My role includes an unreasonable amount of on-call responsibilities
OWN_DECISIONS	I can make my own decisions in carrying out my job

HATE	I hate living in this part of Australia
ROLE_JD	My actual role is very similar to my job description
PERS_JUDGE	I can use my personal judgment in carrying out my job
RIG_RECRUIT	A rigorous selection process is used to recruit and select new people
PRESSURE	I am under a lot of pressure in my job
MGR_USTANDS	My supervisor/manager understands what I do in my job
Section 4: This section will collect some non-identifiable information about you and your employment	
REGION 1=QLD 2=NT 3=WA	**Region:** ☐ QLD ☐ NT ☐ WA
GENDER 1=MALE 2=FEMALE	**Gender:** ☐ MALE ☐ FEMALE
AGE 0 ≤19 1 = 20 ≤ 29 2 = 30 ≤ 39 3 = 40 ≤ 49 4 = 50 ≤ 59 5 = 60 ≤ 69 6 ≥70	**Age:** ☐ 19 years and under ☐ 20 -29 years ☐ 30-39 years ☐ 40-49 years ☐ 50-59 years ☐ 60-69 years ☐ 70 years +
LOC_WORK 1 = Very Remote 2 = Remote Town 3 = Regional centre	**Which of the following best describes the location where you work most of the time?** ☐ Very Remote (eg remote Aboriginal community, island location, outstations) ☐ Remote Small Town (eg Coen, Julia Creek, Fitzroy Crossing, Halls Creek, Jabiru) ☐ Remote Regional Centre (eg Broome, Mt Isa, Weipa, Cooktown, Kununurra)
WAYWORK 1 = live & work very remote 2 = FIFO very remote live regional 3 = FIFO very remote live city 4 = Other	**Which of the following best describes the way that you do your work?** ☐ I live and work in a very remote area ☐ FIFO/DIDO to very remote areas and live in a remote regional centre ☐ FIFO/DIDO to remote/very remote areas and live in a urban city ☐ Other (please explain)
OCC 1 = AH 2 = Dentist 3 = GP 4 = Specialist 5 = IHW 6 = Nurse 7 = Other	**Occupation:** ☐ Allied Health (please provide discipline) ☐ Dentist ☐ Doctor – GP ☐ Doctor – Specialist ☐ Indigenous Health Worker ☐ Nurse (please specify whether RAN, DON, CNC, RN, EN) ☐ Other (please explain)
FIRSTQUAL 1 = CITY	**Please provide the name of the town/city where the university /college in which you attained your first**

2 = REGIONAL 3 = O/S	**qualification is located**
PLACMNT 1 = YES 2 = NO	**Did you undertake a rural or remote clinical placement prior to your first paid remote position?** ☐ YES ☐ NO
PRLVREM 1 = Never 2 = No 3 = Yes(child) 4 = Yes(partner) 5 = Yes(pre exp) 6 = Yes(o/s)	**Prior to this position, have you ever lived in a remote area before?** ☐ No, I have never lived in a remote region ☐ No, this is the first time I have lived in a remote area ☐ Yes, I lived in a remote area as a child ☐ Yes, I lived with my partner who has worked in a remote area previously ☐ Yes, I have worked in a remote area previously in Australia ☐ Yes, I have worked in a remote area previously in another country
CURROLE	**How long have you been in your current role?**
CUREMP	**How long have you worked for your current employer?**
CUREMPRR [NUMBER]	**How long have you worked in a remote area with your current employer?**
MGTRESP 1 = YES 2 = NO	**Does your current position have formal management responsibilities?**
PRIRREMP 1 = YES 2 = NO	**Prior to this position had you worked in a remote area before If yes, was this with your current employer?**
PRIDIFEMP 1 = ACCHO 2 = AGENCY 3 = NGO 4 = STATE GOVT 5 = OTHER	**If no, which of the following best describes your previous employer:** ☐ **Aboriginal Controlled Health Organisation** ☐ **Employment/Recruitment Agency** ☐ **NGO** ☐ **State health department** ☐ **Other** (please explain)
ADDANNLV 1 = YES 2 = NO	**Have you received additional annual leave benefits from your employer?**
INCENTRR 1 = YES 2 = NO	**Have you received a remote area incentive payment from your employer?**
ANNFLGT 1 = YES 2 = NO	**Have you received a free annual flight home or to an urban location of your choice?**
PRIWKEXP [Text]	**Please give a brief summary of your previous work experience in a remote are**
SRHWDEF [Text]	**Finally, this project is called a *Sustainable Remote Health Workforce*. In your own words, describe how the remote health workforce could be sustainable**

Appendix M

SPSS Output – Exploratory Factor Analysis (EFA)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.779
Bartlett's Test of Sphericity	Approx. Chi-Square	3107.620
	df	1830
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	17.258	28.292	28.292	17.258	28.292	28.292	9.685	15.877	15.877
2	3.431	5.624	33.916	3.431	5.624	33.916	5.179	8.491	24.367
3	2.613	4.284	38.200	2.613	4.284	38.200	3.756	6.157	30.525
4	2.432	3.987	42.187	2.432	3.987	42.187	3.346	5.486	36.010
5	2.211	3.624	45.810	2.211	3.624	45.810	2.757	4.520	40.531
6	2.118	3.473	49.283	2.118	3.473	49.283	2.683	4.398	44.928
7	1.874	3.072	52.355	1.874	3.072	52.355	2.586	4.239	49.168
8	1.829	2.998	55.353	1.829	2.998	55.353	2.514	4.122	53.290
9	1.501	2.461	57.815	1.501	2.461	57.815	2.218	3.636	56.926
10	1.404	2.301	60.116	1.404	2.301	60.116	1.946	3.190	60.116
11	1.393	2.283	62.399						
12	1.279	2.096	64.495						
13	1.254	2.056	66.551						
14	1.205	1.976	68.527						

Extraction Method: Principal Component Analysis.

SPSS Output – Confirmatory Factor Analysis (CFA)

Appendix N

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.828
Bartlett's Test of Sphericity	Approx. Chi-Square	3548.091
	df	946
	Sig.	.000

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.817	24.584	24.584	10.817	24.584	24.584	5.830	13.249	13.249
2	3.653	8.302	32.886	3.653	8.302	32.886	4.991	11.343	24.593
3	3.184	7.236	40.122	3.184	7.236	40.122	3.245	7.375	31.968
4	1.941	4.411	44.533	1.941	4.411	44.533	2.462	5.596	37.564
5	1.737	3.949	48.482	1.737	3.949	48.482	2.183	4.961	42.525
6	1.615	3.670	52.152	1.615	3.670	52.152	2.126	4.832	47.357
7	1.464	3.327	55.479	1.464	3.327	55.479	1.985	4.512	51.868
8	1.382	3.141	58.620	1.382	3.141	58.620	1.825	4.147	56.015
9	1.205	2.738	61.357	1.205	2.738	61.357	1.741	3.956	59.971
10	1.055	2.399	63.756	1.055	2.399	63.756	1.665	3.784	63.756
11	1.029	2.338	66.094						
12	.978	2.222	68.316						
13	.916	2.081	70.397						
14	.851	1.933	72.330						
15	.809	1.838	74.168						

Appendix O

Examining HR Constructs for Multi-collinearity - Variance Inflation Factor (VIF) calculations

Dependent Variable: SRHW	**VIF**	**Dependent Variable: Remuneration**	**VIF**
LMX	1.988	Personal Isolation	1.086
POS	2.263	Empowerment	2.112
Work Engagement	1.249	Professional Isolation	1.371
Remuneration	1.242	Competence	1.532
Personal Isolation	1.134	SRHW	3.312
Empowerment	1.844	LMX	2.059
Professional Isolation	1.314	POS	2.360
Competence	1.552	Work Engagement	1.407
Dependent Variable: LMX	**VIF**	**Dependent Variable: Personal Isolation**	**VIF**
POS	2.492	Empowerment	2.123
Work Engagement	1.355	Professional Isolation	1.363
Remuneration	1.232	Competence	1.509
Personal Isolation	1.139	SRHW	3.310
Empowerment	2.080	LMX	2.084
Professional Isolation	1.355	POS	2.544
Competence	1.318	Work Engagement	1.397
SRHW	3.171	Remuneration	1.189
Dependent Variable: POS	**VIF**	**Dependent Variable: Empowerment**	**VIF**
Work Engagement	1.405	Professional Isolation	1.380
Remuneration	1.153	Competence	1.547
Personal Isolation	1.135	SRHW	2.887
Empowerment	2.003	LMX	2.042
Professional Isolation	1.380	POS	2.408
Competence	1.496	Work Engagement	1.405
SRHW	2.948	Remuneration	1.240
LMX	2.035	Personal Isolation	1.139
Dependent Variable: Work Engagement	**VIF**	**Dependent Variable: Professional Isolation**	**VIF**
Remuneration	1.247	Competence	1.548
Personal Isolation	1.131	SRHW	3.165
Empowerment	2.120	LMX	2.045
Professional Isolation	1.352	POS	2.551
Competence	1.544	Work Engagement	1.378
SRHW	2.949	Remuneration	1.238
LMX	2.006	Personal Isolation	1.125
POS	2.548	Empowerment	2.121

Dependent Variable: Competence	**VIF**
SRHW	3.325
LMX	1.770
POS	2.459
Work Engagement	1.400
Remuneration	1.230
Personal Isolation	1.107
Empowerment	2.116
Professional Isolation	1.377

Appendix P

SPSS Output for Stepwise Regressions for the Dependant variable SRHW and all Independent Variables

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.663[a]	.439	.435	.50560	.439	101.763	1	130	.000
2	.747[b]	.558	.551	.45041	.119	34.809	1	129	.000
3	.802[c]	.643	.635	.40653	.085	30.356	1	128	.000
4	.821[d]	.673	.663	.39041	.030	11.784	1	127	.001
5	.827[e]	.684	.671	.38546	.011	4.287	1	126	.040
6	.834[f]	.695	.680	.38021	.011	4.505	1	125	.036

a. Predictors: (Constant), POS

b. Predictors: (Constant), POS, WORK_ENGAGE_NOWE7

c. Predictors: (Constant), POS, WORK_ENGAGE_NOWE7, LMX

d. Predictors: (Constant), POS, WORK_ENGAGE_NOWE7, LMX, EMPOWERMENT

e. Predictors: (Constant), POS, WORK_ENGAGE_NOWE7, LMX, EMPOWERMENT, COMPETENCE

f. Predictors: (Constant), POS, WORK_ENGAGE_NOWE7, LMX, EMPOWERMENT, COMPETENCE, PROF_ISOLATION

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26.014	1	26.014	101.763	.000[b]
	Residual	33.232	130	.256		
	Total	59.246	131			
2	Regression	33.076	2	16.538	81.519	.000[c]
	Residual	26.171	129	.203		
	Total	59.246	131			
3	Regression	38.093	3	12.698	76.832	.000[d]
	Residual	21.154	128	.165		
	Total	59.246	131			
4	Regression	39.889	4	9.972	65.424	.000[e]
	Residual	19.358	127	.152		
	Total	59.246	131			
5	Regression	40.526	5	8.105	54.552	.000[f]
	Residual	18.721	126	.149		
	Total	59.246	131			
6	Regression	41.177	6	6.863	47.475	.000[g]
	Residual	18.070	125	.145		
	Total	59.246	131			

a. Dependent Variable: SRHW_HRZ

b. Predictors: (Constant), POS

c. Predictors: (Constant), POS, WORK_ENGAGE_NOWE7

d. Predictors: (Constant), POS, WORK_ENGAGE_NOWE7, LMX

e. Predictors: (Constant), POS, WORK_ENGAGE_NOWE7, LMX, EMPOWERMENT

f. Predictors: (Constant), POS, WORK_ENGAGE_NOWE7, LMX, EMPOWERMENT, COMPETENCE

g. Predictors: (Constant), POS, WORK_ENGAGE_NOWE7, LMX, EMPOWERMENT, COMPETENCE, PROF_ISOLATION

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	.622	.166		3.744	.000	.293	.951		
	POS	.568	.056	.663	10.088	.000	.456	.679	1.000	1.000
2	(Constant)	.205	.164		1.252	.213	-.119	.530		
	POS	.460	.053	.537	8.635	.000	.355	.566	.884	1.131
	WORK_ENGAGE_NOWE7	.295	.050	.367	5.900	.000	.196	.394	.884	1.131
3	(Constant)	-.013	.153		-.085	.933	-.316	.290		
	POS	.326	.054	.381	6.054	.000	.220	.433	.704	1.420
	WORK_ENGAGE_NOWE7	.288	.045	.359	6.386	.000	.199	.378	.883	1.132
	LMX	.272	.049	.332	5.510	.000	.174	.369	.769	1.300
4	(Constant)	-.191	.156		-1.226	.222	-.500	.118		
	POS	.249	.056	.291	4.422	.000	.138	.361	.593	1.686
	WORK_ENGAGE_NOWE7	.262	.044	.326	5.951	.000	.175	.349	.857	1.168
	LMX	.220	.050	.268	4.418	.000	.121	.318	.698	1.433
	EMPOWERMENT	.268	.078	.227	3.433	.001	.114	.423	.586	1.707
5	(Constant)	-.248	.157		-1.584	.116	-.558	.062		
	POS	.215	.058	.251	3.702	.000	.100	.330	.545	1.836
	WORK_ENGAGE_NOWE7	.245	.044	.305	5.541	.000	.157	.333	.827	1.209
	LMX	.169	.055	.206	3.075	.003	.060	.277	.558	1.793
	EMPOWERMENT	.288	.078	.244	3.701	.000	.134	.442	.577	1.732
	COMPETENCE	.083	.040	.136	2.070	.040	.004	.162	.585	1.710
6	(Constant)	-.352	.162		-2.172	.032	-.672	-.031		
	POS	.187	.059	.219	3.185	.002	.071	.304	.518	1.932
	WORK_ENGAGE_NOWE7	.227	.044	.282	5.098	.000	.139	.315	.796	1.256
	LMX	.147	.055	.179	2.661	.009	.038	.256	.538	1.859
	EMPOWERMENT	.285	.077	.241	3.711	.000	.133	.437	.577	1.733
	COMPETENCE	.086	.039	.142	2.193	.030	.008	.164	.584	1.713
	PROF_ISOLATION	.132	.062	.121	2.123	.036	.009	.255	.751	1.332

a. Dependent Variable: SRHW_HRZ

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions						
				(Constant)	POS	WORK_ENGAGE_NOWE7	LMX	EMPOWERMENT	COMPETENCE	PROF_ISOLATION
1	1	1.964	1.000	.02	.02					
	2	.036	7.421	.98	.98					
2	1	2.902	1.000	.01	.01	.01				
	2	.063	6.806	.10	.22	.97				
	3	.035	9.054	.89	.77	.02				
3	1	3.828	1.000	.00	.00	.01	.01			
	2	.090	6.517	.00	.01	.51	.47			
	3	.048	8.942	.39	.16	.48	.46			
	4	.034	10.535	.61	.83	.00	.07			
4	1	4.796	1.000	.00	.00	.00	.00	.00		
	2	.091	7.268	.01	.00	.53	.38	.00		
	3	.050	9.754	.19	.09	.45	.55	.07		
	4	.035	11.688	.74	.43	.01	.06	.06		
	5	.028	13.096	.06	.48	.00	.01	.86		
5	1	5.739	1.000	.00	.00	.00	.00	.00	.00	
	2	.096	7.736	.01	.00	.47	.23	.00	.06	
	3	.060	9.768	.07	.04	.23	.00	.17	.42	
	4	.045	11.241	.14	.07	.29	.57	.01	.28	
	5	.035	12.792	.69	.43	.01	.06	.04	.00	
	6	.024	15.342	.08	.46	.01	.13	.78	.24	
6	1	6.683	1.000	.00	.00	.00	.00	.00	.00	.00
	2	.097	8.287	.01	.00	.37	.23	.00	.09	.02
	3	.067	10.018	.02	.01	.33	.00	.03	.30	.28
	4	.050	11.536	.02	.04	.00	.00	.27	.11	.56
	5	.045	12.133	.13	.07	.28	.56	.00	.26	.00
	6	.035	13.911	.66	.42	.00	.05	.01	.00	.04
	7	.023	17.039	.16	.45	.02	.16	.69	.25	.10

a. Dependent Variable: SRHW_HRZ