ResearchOnline@JCU

This is the **Accepted Version** of a paper published in the journal: Asia Pacific Journal of Human Resources

Onnis, Leigh-ann Lesley, and Pryce, Josephine (2016) *Health professionals working in remote Australia: a review of the literature.* Asia Pacific Journal of Human Resources, 54 (1). pp. 32-56.

http://dx.doi.org/10.1111/1744-7941.12067

This article may be used for non-commercial purposes in accordance with [Wiley Terms and Conditions for Self-Archiving](#).

JAMES COOK UNIVERSITY
AUSTRALIA

Health workforce challenges in rural and remote Australia: An HRM approach

Abstract

Health professionals working in remote Australia have demanding and stressful yet diverse and rewarding roles. The health domain literature examines the challenges of health service delivery non-cognisant of the benefits of a human resource management (HRM) approach. This systematic literature review uses an HRM approach to examine what is already known on this topic, and to identify key extant themes in order to determine: 1) which factors are common across the entire remote health workforce; and 2) whether there are factors that are unique to working in remote Indigenous communities that need further consideration. The findings suggest that the challenges and rewards are similar for health professionals working in remote Indigenous communities and those working in rural and remote regions. Therefore, the emergent themes (Personal, Professional, Organisational and Contextual) presented within a conceptual framework in this article, are pertinent for all health professionals working in remote Australia.

Keywords: health workforce, HRM, remote, retention, turnover.

Introduction

> *Nursing in an isolated community is certainly different ... We hardly knew each other and now we were going to be living and working closely together for the next year or so in a place we didn't know, with people whose languages we didn't understand ... We learnt to appreciate the beauty of the desert, its colour, vastness, ruggedness ... providing good quality healthcare without hesitation, we were indeed bush nurses.*
>
> (Brayley 2013, 22-26)

Australians, in general, experience good health, having one of the highest life expectancies in the world (AIHW 2012). One of the strengths of the Australian health system is that it is premised by equitable access regardless of where people live. A competent health workforce is crucial in providing these services in major cities, and rural and remote regions. In remote regions it is difficult to attract and retain health professionals in these challenging roles (Humphreys et al. 2008). Furthermore, turnover in remote regions of Australia is high (Hunter et al. 2013; Weymouth et al. 2007) and costly (Chisholm et al. 2011; Garnett et al. 2008). One study reports an annual turnover rate of 57% for nurses in the Northern Territory (Garnett et al. 2008). Improvements in technology and communication broaden the scope and availability of health services and minimise, to some extent, the isolation of remote Australia. However, workforce challenges continue for many organisations endeavouring to provide quality healthcare in remote regions, both in Australia and internationally.

Existing literature from the health domain examines workforce challenges focusing on models of healthcare service delivery and the impact of remoteness on the provision of these services (Humphreys et al. 2008; Margolis 2012). An HRM approach can complement the health domain research through a more in-depth focus on employment relationships and working conditions investigating their impact on workforce turnover. HRM theories and concepts provide alternative frameworks through which to examine the challenges identified by health professionals working in remote Australia. While other researchers highlight the benefits of an HRM approach in examining these challenges (Allan and Ball 2008), there remains a dearth of research in this area.

In its broadest sense HRM 'covers all employment relationships and situations where one or more persons directs and coordinates the work of others' (Kaufman 2014, 198). HRM theories and concepts can be traced back more than a century; however, modern HRM practice develops through the relationship between research and practice (Kaufman 2014; Wilson and DeNisi 2014). This article's 'high commitment' HRM approach lends invaluable insights into the working life of health professionals. It focuses on health professionals as employees, considers their personal and professional needs, and their employment experience in remote regions (Thompson 2011). Gould-Williams (2004, 64) suggests that 'a universally prescribed set of 'high commitment' HRM practices positively effect organizational performance regardless of industry setting, organization strategy or national context'. For

remote health professionals, these HRM practices include rigorous recruitment and selection processes, performance-contingent compensation systems and management development (Gould-Williams 2004; Guest 1997).

HRM addresses many issues that relate to sustaining positive and healthy employment relationships through 'the policies, practices and systems that influence employees' behaviour, attitudes and performance' (De Cieri et al. 2004, 596). These factors make the HRM approach complementary to that reported in the health domain literature. Hence, HRM provides a sound evidence-base from which to examine workforce challenges discussed in the health domain literature, especially those aspects relating to attraction and retention of remote health professionals (Allan and Ball 2008). In addition, an HRM approach where 'people management' is the focus provides a sound foundation to examine issues confronting remote health professionals. In the circumstances encountered by remote health professionals, work and home life interconnect, workers are immersed in new cultures, and social support networks are crucial; all indicating that HRM has much to offer. Benefits of this HRM approach stem from its history of empirical evidence while maintaining currency in contemporary workplaces through continued validation, within and across industrial, cultural, international and multi-national contexts (Syed and Jamal 2012; Wright and Kehoe 2008) making it a worthy framework from which to consider the working life of remote health professionals.

This article uses this HRM approach to analyse literature that includes health professionals' perspectives about working in a remote region. This systematic review synthesises findings from research about health professionals working in remote Australia, including strategies to improve workforce stability, continuity and to minimise avoidable turnover. The literature illuminates the challenges of working in rural and remote regions. However, it does not clearly differentiate whether the findings are applicable specifically to Indigenous communities or rural/remote regions in general. Thus, synthesising data, beyond reported findings from each study, reveals associations and further meaning that informs future research (Thomas and Harden 2007). The aim is to examine what is already known on the topic, and to identify themes that emerge 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. The emergent themes are presented in a conceptual framework enabling further analysis using an HRM approach. Through this HRM approach challenges are considered in terms of employment relationships and management practice rather than only as consequences of remoteness or nuances of the health industry.

This article is structured such that the health domain literature is analysed with emergent themes presented in the results section. Subsequently, the discussion section introduces HRM theories and acts as a conduit between the two academic fields of inquiry. In addition, the discussion provides evidence supporting the aim of the literature review. The

recommendations for further research and concluding remarks provide guidance about how an HRM approach makes a valuable contribution to this topic of research.

Methods

Literature search

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', '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).[i]
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 articles 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 Regions' articles.

Data cleansing

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 its removal did not influence the themes identified for the literature review. Hence, nineteen articles were selected for the literature review (Table 1).

Table 1 approximately here

Thematic analysis

A thematic analysis identified key themes. Emergent themes were reviewed and discussed by the researchers, and upon consensus, overarching descriptive themes and sub-themes were identified and consolidated. In order to confirm the themes, NVIVO was used for further analysis. The themes were used to create nodes in NVIVO. The 19 articles were classified by geographical work location – remote Indigenous community or remote region. All articles were then coded into these nodes. This coding was reviewed to ensure that it was coded consistently with factors listed in the original subcategories. A few changes to theme names were made ensuring consistency. From 1017 coded data points, only 45 were re-coded (0.045%) suggesting that the coding was fairly consistent.

NVIVO Analysis

Key themes guided analysis of the articles using NVIVO. 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 (Thomas and Harden 2007) that informed the questions for the literature review. 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 and Harden 2007). The benefit for this literature synthesis was that by going beyond reported themes from the primary studies, it could better inform the questions being asked of the synthesised data (Thomas and Harden 2007).

Results

Word frequencies

NVIVO word frequency queries for the two classifications of articles found the most frequently used words were similar for literature describing working in a 'remote region' and that literature describing working in an 'Indigenous community'. 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).

Table 2 approximately here

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 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 further in the discussion section of this article. A more detailed explanation of each factor is presented in Table 3 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.

Table 3 approximately here

These factors were consistently reported by health professionals across rural and remote settings, and remote Indigenous communities; however, regional similarities and differences in the broader context should be considered.

Regional similarities and differences

The literature review initially identified that the main factors that were associated with working in Indigenous communities were about culture, Indigenous health, geographical distance and community. However, the synthesis of the literature suggests these factors are common for health professionals working in remote regions and those health professionals in remote Indigenous communities. The factors, when coded, were found in articles about working experiences in rural and remote areas as well as remote Indigenous communities. Hence, 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 Indigenous culture that impact on the role of health professionals (Battye and 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 as well. These cultural factors

would also need to be addressed in these locations, suggesting that it is about being responsive to the sociological environment (the client's cultural needs) as opposed to being specifically related to remote Indigenous communities. Similarly, for those with the desire 'to work with Indigenous people' (Bent 1999), opportunities exist in rural and remote areas as well as Indigenous communities so this was coded as a 'remote consideration'. Geographic distance was coded under 'remote consideration' because some remote towns are more geographically isolated than some Indigenous communities (Bent 1999). Finally, 'community' was coded under 'responsive to environment' (Carey 2013; Devine 2006; Greenwood and Cheers 2003; Santhanam et al. 2006). Indigenous communities provide unique experiences for health professionals (Santhanam et al. 2006); however, remote towns also provide unique community experiences and challenges (Hays et al. 2003). The literature did not 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, 34).

The contextual theme captured factors that may affect health professionals differently depending on whether they were permanent residents or visitors to the region. 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 clear distinction between the views of permanent resident health professionals from the region and those who relocated to work in the 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, indicating 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.

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 1).

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 policy and systems that impact on the way health professionals work (Organisational).

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 working 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.

Figure 1 approximately here.

The themes are consistent with those identified by other workforce retention studies (Cameron et al. 2012; WHO 2010). However, when an HRM approach is taken to examine the literature there is increased consideration of employees and the role they play which is not as evident in many studies from the health domain where the focus is on healthcare service provision. The HRM approach facilitates consideration of the person (personal) and their relationship with other factors, i.e., their relationship with the organisation, their professional attributes and their interaction with the environment in the context of the role they are performing.

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 1) in terms of relationships and interconnectivity. They both include the impact of environment and personal characteristics on workplace experiences.

Similarly, other theoretical frameworks support the themes and relationships described in Figure 1 (Buykx et al. 2010; Wakerman et al. 2009). Generally, these models contained a component about personal characteristics/social support (Personal); management, leadership or governance (Organisational); professional needs or support (Professional); and the physical, financial and political environment (Contextual), further supporting the conceptual framework proposed here.

From themes to theories

The conceptual framework (Figure 1) 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 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 and Kennedy 2005).

An Australian survey of 11,000 Australian workers found that 80% of turnover is within the employers' control (Insync surveys 2012). If a high proportion of voluntary turnover arises from factors within the organisation's control, the costs of turnover make it imperative that

organisations introduce preventative approaches to manage unwanted turnover. In remote areas where voluntary turnover is high, there may be opportunities for organisations to engage an HRM approach to review their policy and practices to support existing workforces as well as investigating avenues for attracting new health professionals.

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 a city (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 organisations that do not support them personally and professionally (Battye and McTaggart 2003; Hegney 2002a). 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 employer-employee relationships. In remote regions where turnover is high and vacancies are common, social interactions influence HRM constructs such as organisational commitment. Social exchange theory examines the employee-employer relationship and its impact on employee outcomes including job satisfaction, commitment and turnover (Sluss and Thompson 2012; Xerri 2013). Therefore, social exchange theory provides a sound theoretical basis for further investigation on the impact of this relationship and voluntary turnover in remote regions.

A 'high commitment' HRM approach can benefit remote workforces in many ways, especially by offering evidence-based theories to guide and inform many aspects of workforce management. This is not limited to recruitment practices but extends to HRM practices congruent with the 'high commitment' HRM approach, such as personal and professional support which will positively impact workplace culture, morale and operational functioning. Social exchange theory suggests that for new employees, the relationship with their supervisor influences not only their fit with the role and organisation but also their socialisation into the working environment (Sluss and Thompson 2012). In remote regions, where social isolation is predominantly 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).

Organisational identity is a key factor in considering workforce attraction and retention. 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. HRM research offers a number of theories and concepts that provide an evidence-base for understanding employees' attachment to organisations. For example, social-identity theory 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 (e.g. Royal Flying Doctor Service provides the employee an opportunity for association with a respected Australian icon) (Alvesson 2013; Highhouse et al. 2007). Highhouse et al. (2007) suggests that attraction to symbolic features of organisations, or their perceived status, facilitate prospective employees' ability to communicate how they wish to be perceived.

High commitment HRM practices shape employee attitudes through psychological links between the organisation and the employee (Gould-Williams and Davies 2005). These psychological links or psychological contracts are derived from an employee's beliefs about the obligations of their employer (Knights and Kennedy 2005). The concept of the psychological contract has become an analytical tool for HRM practitioners even though it originated from outside the HRM field (Cullinane and Dundon 2006). Being an unwritten contract, individual to each employee, it is derived from their understanding of the employment relationship and the implied obligations (Knights and Kennedy 2005). Psychological contracts are created during attraction, recruitment or early employment experiences. Whether the psychological contract is transactional (e.g. financial incentives) or relational (e.g. benefits attained through organisational loyalty) it impacts employee's job satisfaction (Knights and 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 and Kennedy 2005). 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 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 and Hur 2014, 183) and reduced turnover (Knights and 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, McAllister and Eley 2012). Similarly, factors such as tired and exhausted were identified in studies where job satisfaction was high (Opie et al. 2011, 201). Hence, Herzberg's motivation-hygiene theory where extrinsic incentives are believed to prevent dissatisfaction and intrinsic incentives to promote job satisfaction (Campbell, McAllister and Eley 2012) aids understanding about the motivation behind workforce stability, retention, intention to leave and turnover. In the remote context, extrinsic incentives include continued service incentive payments, subsidised accommodation and additional leave. In contrast, intrinsic incentives include the satisfaction derived through meaningful work, autonomy and personal development.

In fact, analysis using this HRM approach as well as further 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 (Knights and 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 theory 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 and Urry 2006) are indicative of the factors that will continue to impact workforce stability 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 the remote health workforce would be better understood if HRM knowledge was applied to examine the issues. 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. Therefore, the following recommendations identify areas where HRM theories and concepts can be utilised to investigate workforce challenges providing evidence to complement the research undertaken within the health domain.

Recommendations

This literature review suggests that the factors identified are more similar than they are different for health professionals working in rural and remote areas and those working in Indigenous communities. Further investigation into whether the factors differ significantly between rural and remote regions may be warranted.

There was no clearly identified distinction between the views of permanent resident health professionals (from the area) and those that had recently commenced working in the area (e.g. FIFO or temporarily living in the remote area). There is an opportunity to investigate this further as the findings may provide further evidence of ways to minimise voluntary turnover and improve retention of health professionals in remote regions.

Using HRM theories and concepts to further investigate the challenges and rewards of working in remote areas can provide further empirical evidence. For example, some health professionals report significant negative personal impacts from the remote work experience, yet remain due to high job satisfaction and the rewarding aspects specific to working in remote areas. The conceptual theoretical framework developed from the synthesis of the

findings from the literature, together with evidence-based HRM research provides a sound framework for further study.

Conclusion

The remote health workforce provides healthcare to people who live in remote regions. This literature review suggests 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. Analysis identified four themes and related subthemes, presented here as a conceptual framework. While research through these themes, especially where there was a dearth of information is warranted, further investigation, using HRM theories and concepts, would provide a richer and deeper understanding about the benefits of current incentives, development programs and reward systems as they relate to stability of the remote health workforce. The proposed conceptual framework can guide further investigation building on findings from previous research.

In remote regions where turnover is high, further research incorporating HRM approaches for current remote health workforces is necessary. While workforce attraction and recruitment are essential to meet operational needs, for organisations facing workforce shortages it makes better sense to support and invest in the current workforce, that is, those already working in remote regions who know the environment, the organisation and the community.

References

Allan J and P Ball (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.

Alvesson M (2013) Understanding Organizational Culture. Sage, London.

Australian Bureau of Statistics (ABS) (2006) Australian Standard Geographical Classification (ASGC), Canberra. http://www.abs.gov.au/AUSSTATS/abs@.nsf/Latestproducts/1AEE5890BD5B7B5EC A2571 A90017901F?opendocument (accessed 3 September 2013).

Atkins, S, S Lewin, H Smith, M Engel, A Fretheim and J Volmink (2008) Conducting a meta-ethnography of qualitative literature: Lessons learnt. BMC Medical Research Methodology 8(21).

Australian Institute of Health and Welfare (AIHW) (2012). Australia's health 2012. Australia's health series no.13. AIHW, Canberra. http://www.aihw.gov.au/publication-detail/?id=10737422172 (accessed 7 April 2014).

Battye, KM and K McTaggart (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.

Bent, A (1999) Allied health in Central Australia: challenges and rewards in remote area practice. Australian Journal of Physiotherapy 45(3), 203-212.

Birks, M, J Mills, K Francis, M Coyle, J Davis and J Jones (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.

Brayley A (2013) Bush Nurses (Kobo ebook edition). Penguin Group, Australia.

Buykx, P, J Humphreys, J Wakerman, and D Pashen (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.

Cameron, PJ, DC Este and CA Worthington (2012) Professional, personal and community: 3 domains of physician retention in rural communities. Canadian Journal of Rural Medicine: the Official Journal of the Society of Rural Physicians of Canada 17(2), 47-55.

Campbell, N, L McAllister, and D Eley (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).

Campion, J, E Hunter and J Skalicky (2007) Improving Mental Health Skills of Health Workers in Indigenous Communities in Northern Queensland. Aboriginal and Islander Health Worker Journal 31(6), 12-15.

Carey, T (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(1), 80.

Chisholm, M, D Russell and J Humphreys (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.

Cullinane, N and T Dundon (2006) The psychological contract: A critical review. International Journal of Management Reviews 8(2), 113-129.

De Cieri H, R Kramar, R Noe, J Hollenbeck, B Gerhart and PM Wright (2004) Human Resource Management in Australia: strategy, people, performance. McGraw Hill Australia Pty Ltd, Macquarie Park, Australia.

Devine, S (2006) Perceptions of occupational therapists practising in rural Australia: A graduate perspective. Australian Occupational Therapy Journal 53(3), 205-210.

Gardiner, M, R Sexton, M Durbridge and K Garrard (2005) The role of psychological well-being in retaining rural general practitioners. Australian Journal of Rural Health 13(3), 149-155.

Garnett S, K Coe, K Golebiowska, H Walsh, K Zander, S Guthridge, S Li and R Malyon (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. Charles Darwin University Press, Darwin. http://digitallibrary.health.nt.gov.au/dspace/bitstream/10137/228/1/nurse_report.pdf (accessed 7 April 2014).

Giancola, FL (2011) Examining the Job Itself as a Source of Employee Motivation. Compensation & Benefits Review 43(1), 23-29.

Gould-Williams, J (2004) The Effects of 'High Commitment' HRM Practices on Employee Attitude: The Views of Public Sector Workers. Public Administration 82, 63-81

Gould-Williams, J, and F Davies (2005) Using social exchange theory to predict the effects of HRM practice on employee outcomes. Public Management Review 7(1), 1-24.

Greenwood, G and B Cheers (2002) Doctors and nurses in outback Australia: living with bush initiatives. Rural and Remote Health 2(1), 98.

Hays, R, S Wynd, C Veitch and L Crossland (2003) Getting the balance right? GPs who chose to stay in rural practice. The Australian Journal of Rural Health 11(4), 193-198.

Hegney, D, A McCarthy, C Rogers-Clark and D Gorman (2002a) Retaining rural and remote area nurses. The Queensland, Australia experience. The Journal of Nursing Administration 32(3), 128-135.

Hegney, D, A McCarthy, C Rogers-Clark and D Gorman (2002b) Why nurses are attracted to rural and remote practice. Australian Journal of Rural Health 10(3), 178-186.

Hegney, D, A McCarthy, C Rogers-Clark and D Gorman (2002c) Why nurses are Resigning from rural and remote Queensland health facilities. Collegian 9(2), 33-39.

Highhouse, S, EE Thornbury and IS Little (2007) Social-identity functions of attraction to organizations. Organizational Behavior and Human Decision Processes 103(1), 134-146.

Humphreys, J, M Jones, J Jones and P Mara (2002) Workforce retention in rural and remote Australia: determining the factors that influence length of practice. The Medical Journal of Australia 176(10), 472-476.

Humphreys, J, J Wakerman, R Wells, P Kuipers, J Jones and P Entwistle (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.

Hunter, E, L Onnis, R Santhanam-Martin, J Skalicky, B Gynther and G Dyer (2013) Beasts of burden or organised cooperation: the story of a mental health team in remote, Indigenous Australia. Australasian Psychiatry 21(6), 572-577.

Insync surveys (2012). The 2012 Insync Surveys Retention Review. http://www.insyncsurveys.com.au (accessed 1 July 2013).

Jones, M, J Humphreys and T Nicholson (2012) Is personality the missing link in understanding recruitment and retention of rural general practitioners? Australian Journal of Rural Health 20(2), 74-79.

Kaufman, B (2014) The historical development of American HRM broadly viewed. Human Resource Management Review 24(3), 196-218.

Kent-Wilkinson, A, L Starr, S Dumanski, J Fleck, A LeFebvre and A Child (2010) International nursing student exchange: rural and remote clinical experiences in Australia Journal of Agromedicine 15(1), 58-65.

Knights, J and B Kennedy (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, and S Hur (2014) The Impacts of Employee Benefits, Procedural Justice, and Managerial Trustworthiness on Work Attitudes: Integrated Understanding Based on Social Exchange Theory. Public Administration Review74(2), 176-187.

Kruger, E and M Tennant (2005) Oral health workforce in rural and remote Western Australia: Practice perceptions. Australian Journal of Rural Health 13, 321-326.

Law, M, B Cooper, S Strong, D Stewart, P Rigby and L Letts (1996) The Person-Environment-Occupation Model:A transactive approach to occupational performance. Canadian Journal of Occupational Therapy 63(1), 9-23.

Lenthall, S, J Wakerman, T Opie, S Dunn, M MacLeod, M Dollard, G Rickard and S Knight (2011) Nursing workforce in very remote Australia, characteristics and key issues. Australian Journal of Rural Health 19(1), 32-37.

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 (online)).

McGrail, M, J Humphreys, C Joyce, A Scott and G Kalb (2011) Rural Amenity and Medical Workforce Shortage: Is there a Relationship? Geographical Research 49(2), 192-202.

Morell, A, S Kiem, M Millsteed and A Pollice (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).

O'Toole, K and A Schoo (2010) Retention policies for allied health professionals in rural areas: a survey of private practitioners. Rural and Remote Health 10(2), 1331.

Opie, T, S Lenthall, J Wakerman, M Dollard, M MacLeod, S Knight, G Rickard and S Dunn (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.

Santhanam, R, E Hunter, Y Wilkinson, H Whiteford and A McEwan (2006) Care, Community, Capacity: Rethinking Mental Health Services in Remote Indigenous Settings. Australian Journal of Primary Health 12(2), 51-56.

Sheller, M and J Urry (2006) The new mobilities paradigm. Environment and Planning A 38(2), 207-226.

Sluss, D and B Thompson (2012) Socializing the newcomer: The mediating role of leader-member exchange. Organizational Behavior and Human Decision Processes 119(1), 114-125.

Syed, Z and W Jamal (2012) Universalistic Perspective of HRM and Orgnisational Performance:Meta-Analytical Study. International Bulletin of Business Administration (13), 47-57.

Thomas J and A Harden (2007) Methods for Researching Synthesis Node, Evidence for Policy and Practice Information and Co-ordinating (EPPI-) Centre. Social Scence Research Unit, London.

Thompson, P (2011) The trouble with HRM. Human Resource Management Journal, 21(4), 355-367.

Thompson, S, S Gifford and L Thorpe (2000) The Social and Cultural Context of Risk and Prevention: Food and Physical Activity in an Urban Aboriginal Community. Health Education and Behavior 27, 725-743.

Wakerman, J, J Humphreys, R Wells, P Kuipers, J Jones, P Entwistle and L Kinsman (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.

Weymouth, S, J Davey, L Wright, L Nieuwoudt, S Barclay, S Belton, S Svenson and L Bowell (2007) What are the effects of distance management on the retention of remote area nurses in Australia? Rural and Remote Health 7(3), 652.

Wilson, MS and AS DeNisi (2014) Research and practice in HRM: a historical perspective. Human Resource Management Review 24(3), 219-231.

World Health Organisation (WHO) (2010) Increasing access to health workers in remote and rural areas through improved retention. http://whqlibdoc.who.int/publications/2010/9789241564014_eng.pdf (accessed 7 April 2014).

Wright, PM and RR Kehoe (2008) Human resource practices and organizational commitment: A deeper examination. Asia Pacific Journal of Human Resources 46(1), 6-20.

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.

Table 1: The literature reviewed (including associated themes and subthemes).

	Author (Year)	Study Design/Methods (Sample Size)	Themes and subthemes									
			Personal			Professional			Organisa-tional		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 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 et al.(2005)	Questionnaire(n=187)	◆	◆	◆	◆	◆		◆			◆
7	Greenwood G & Cheers B(2003)	Interviews(n=18)	◆	◆	◆	◆		◆	◆		◆	◆
8	Hays R et al.(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 et al.(2002)	Questionnaire(n=677)	◆	◆	◆	◆	◆	◆		◆		◆
13	Kent-Wilkinson A et al.(2010)	Clinical practicum(n=4)	◆	◆	◆		◆				◆	◆
14	Kruger E & Tennant M(2005)	Questionnaire(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)	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

Table 2: Frequently used words by category.

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.

Table 3: Key Extent Themes

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 related 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 commencing first rural/remote role.									◆	◆									
	Expectations and preconceptions.	Imaged 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;	Arising from lack of family							◆						◆						

	loneliness	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 satisfaction/Rewards.	◆			◆	◆		◆	◆	◆				◆		◆			
	Job satisfaction; rewarding work.	Personal reward.	◆					◆	◆	◆	◆	◆		◆	◆			◆		
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 relationship connectivity.								◆	◆	◆			◆					
	Family responsibilities.	Personal obligations.					◆		◆				◆							
	Work/life balance.	Personal/unique.								◆	◆	◆								
	Family friendly workplace.	Personal needs satisfied.	◆					◆	◆		◆				◆					
	Proximity of family and friends.	Personal/unique.	◆																	
	Financial considerations.	Personal needs satisfied.					◆		◆	◆	◆				◆		◆			◆
	Housing; childcare; children's education.	Personal needs satisfied.	◆				◆		◆		◆									◆

	Partner's employment.	Personal needs satisfied	◆												◆					
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.	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 transportation impact on health (e.g. access to fresh produce).	◆						◆				◆							
	Excessive on-call responsibilities.	Personal health impact (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.	Professional orientation.													◆						
	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; annual airfares; subsidies (education, relocation, travel, childcare).	Targeted incentives.	◆							◆	◆	◆	◆	◆		◆			◆	◆	◆
	Salary packaging; tax rebates or incentives.	Organisational policy impacts taxation benefits.														◆			◆		

	Remuneration; entitlements reflecting remote practice; inequalities in remuneration between disciplines.	Incentives.	◆	◆	◆	◆						◆				◆			◆	◆	◆
Organisational – Management Factors directly associated with management practices of 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.	Challenges/Incentives	◆			◆	◆		◆	◆	◆		◆						◆		◆
	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;	Impact of HRM practices.	◆	◆		◆	◆				◆		◆					◆	◆	◆	◆

	supporting visiting 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	Large geographical areas; travelling reduces clinical time; seasonal hazards e.g. impassable roads;	Disincentives	◆	◆			◆													◆		

hold many challenges for the local population that are also experienced by health professionals,	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.	Contextual challenges	◆	◆		◆	◆	◆		
	Exciting, rewarding; opportunity to work with Aboriginal people; understanding the realities and rewards of remote practice.	Rewards.	◆							
	Models of service delivery; cross-cultural services; challenges different from urban regions.	Contextual challenges.	◆		◆		◆		◆	◆

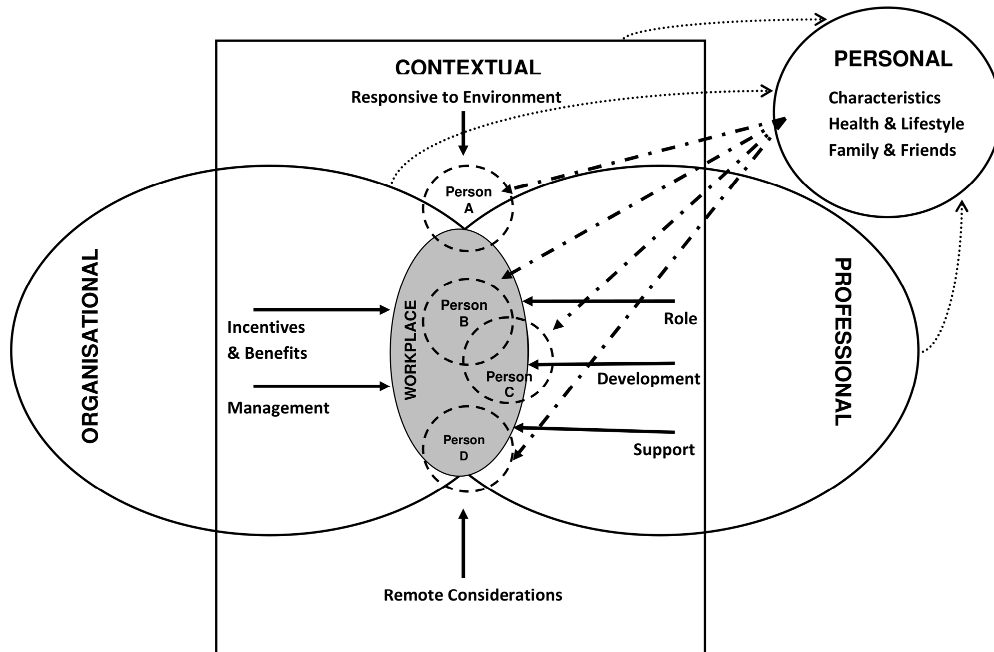

Figure 1: Conceptual Framework: Interaction of emergent themes for health professionals working in remote Australia.

[i] ARIA categories geographically classify areas that share common characteristics of remoteness (e.g. road distance to key service centres).