

## REVIEW ARTICLE

# The influence of motivation in recruitment and retention of rural and remote allied health professionals: a literature review

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## ABSTRACT

**Introduction:** Recruitment and retention of allied health professionals (AHPs) to remote and rural Australia is challenging and correlates with poorer health status of remote and rural residents. While much has been written about the recruitment and retention problem, this study took a new approach by reviewing the literature describing the motivation of AHPs to work in remote and rural areas and then analyzing the findings from the perspective of motivation theory using Herzberg's extrinsic and intrinsic classification. Intrinsic motivation incentives are known to contribute to job satisfaction and come from within the individual, for example the pleasure derived from autonomy or challenge at work. In contrast, extrinsic motivation incentives are provided by the job and include such factors as salary and professional development provisions. Extrinsic incentives are important because they prevent job dissatisfaction. Job satisfaction has been shown to be linked with increased retention.

**Method:** Thirty-five articles, including 26 from Australia, met the inclusion criteria. The key findings related to motivation from each article are outlined and the results classified into the extrinsic–intrinsic framework. The incentives are then further analyzed as having a positive or a negative influence.

**Results:** In total, 38 different incentives were described a total of 246 times. Of the total, almost half ( $n=115$ ) comprised extrinsic incentives with a negative influence, with poor access to professional development, professional isolation and insufficient supervision the most frequently reported. Rural lifestyle and diverse caseloads were the most frequently mentioned positive extrinsic incentives,



while autonomy and community connectedness were the most cited positive intrinsic incentives. Negative intrinsic incentives were mentioned least frequently ( $n=18$ ); however, of these, feeling overwhelmed and that your work was not valued by the community were the most commonly reported.

**Conclusions:** The results demonstrate the significant burden of extrinsic incentives with a negative influence that are perceived by AHPs in remote and rural areas. The high turnover rate of AHPs in remote and rural areas is likely to be, in part, due to the job dissatisfaction from these disincentives. More positive intrinsic incentives were reported than negative. This suggests the potential for intrinsic incentives, known to contribute to job satisfaction, to be mediating the extrinsic disincentives. The policy implications of this work include the importance of addressing extrinsic disincentives. Simultaneously, the existing intrinsic incentives need to be nurtured and developed. Organizations that implement strategies to enhance both extrinsic and intrinsic motivation incentives are more likely to successfully address their AHP workforce shortage.

**Key words:** allied health professional, Australia, extrinsic, intrinsic, job satisfaction, motivation, remote and rural workforce.

## Introduction

The recruitment and retention of allied health professionals (AHPs) to remote and rural areas in Australia, and elsewhere in the world, has long been problematic<sup>1-3</sup>. Maldistribution of the health workforce has been widely acknowledged, with urban populations having greatest access to health care, including that provided by AHPs. Increasing remoteness correlates with increasing workforce shortages and a higher burden of disease<sup>3-7</sup>. The reasons professionals come, what makes them stay and the reason why they leave remote and rural areas has been the subject of discussion and debate in both the academic literature and government policy<sup>2-5,8-12</sup>.

This review analysed the literature describing AHP motivation to work or not work in remote and rural areas. Motivation is defined as the reasons, beyond personal traits, that drive an individual towards a goal<sup>13</sup>. In this article the 'individual' is an AHP and the 'goal' is working in remote or rural workplaces. The aims of this review were to address two research questions: (i) what does the literature describe as the incentives that motivate AHPs to work in remote and rural areas; and (ii) are these incentives classifiable into a framework that is useful in addressing the workforce maldistribution? An analysis of this type can assist in policy

design and organisational strategies which focus on the recruitment and retention problem.

This analysis is underpinned by Frederick Herzberg's seminal framework of motivation at work, which classified worker motivation into two types: intrinsic and extrinsic<sup>14</sup>. Herzberg's research provided insights into motivation that are integral to current understandings of job satisfaction, which is associated with workforce retention<sup>15,16</sup>.

Extrinsic motivation incentives are provided by the workplace. Examples include salary, work status and security, leave allowances, and professional development. These types of incentives have been termed 'hygiene factors' because they prevent job dissatisfaction<sup>14</sup> rather than providing job satisfaction. Perceived restriction of extrinsic incentives (eg inadequate salary for responsibilities expected) has been linked to reduced job satisfaction<sup>14,17,18</sup>.

Intrinsic motivation incentives are inherent in work, that is the pleasure derived from the work itself<sup>19</sup>. They make a person 'feel good' about their work and their performance of it. These incentives provide a reason above and beyond the extrinsic incentives to engage in the work and contribute directly to job satisfaction<sup>14</sup>. Examples include challenge, autonomy, and perceived significance of the work.



Studies of health professions, including nursing, medicine and allied health have confirmed the relative importance of intrinsic incentives over extrinsic incentives in providing job satisfaction<sup>17,18,20-23</sup>. For example, Randolph in a study of 328 rehabilitation professionals in North America concluded that extrinsic incentives were weaker in significance for predicting job satisfaction and intent to stay compared with intrinsic incentives, such as professional growth and a work environment in line with personal values<sup>18</sup>. Likewise a study by Lyons of 787 American healthcare professionals found that three out of four of the top factors for predicting job satisfaction were intrinsic incentives, including 'worthwhile accomplishment and opportunities for growth and recognition'<sup>17</sup>. Kamien, in a longitudinal study of Australian rural medical workforce defined three incentives contributing to professional job satisfaction: variety in work, autonomy of practice and the feeling that one is doing an important job<sup>16</sup>.

For any individual at any point in time, there is a dynamic balance of extrinsic and intrinsic incentives. Unique environmental, professional and personal factors interact with motivation to impact job satisfaction and recruitment and retention outcomes<sup>5,24-29</sup>. Age and experience interplay with background and overall goals. Younger professionals rank career opportunities (extrinsic) more highly than older professionals<sup>30,31</sup>. The intrinsic reward of job challenge and autonomy can offset the extrinsic disincentive of personal and professional isolation associated with remote and rural work<sup>31,32</sup>. Additionally, factors that operate as incentives for some may be viewed as disincentives by others (eg rural lifestyle)<sup>33</sup>.

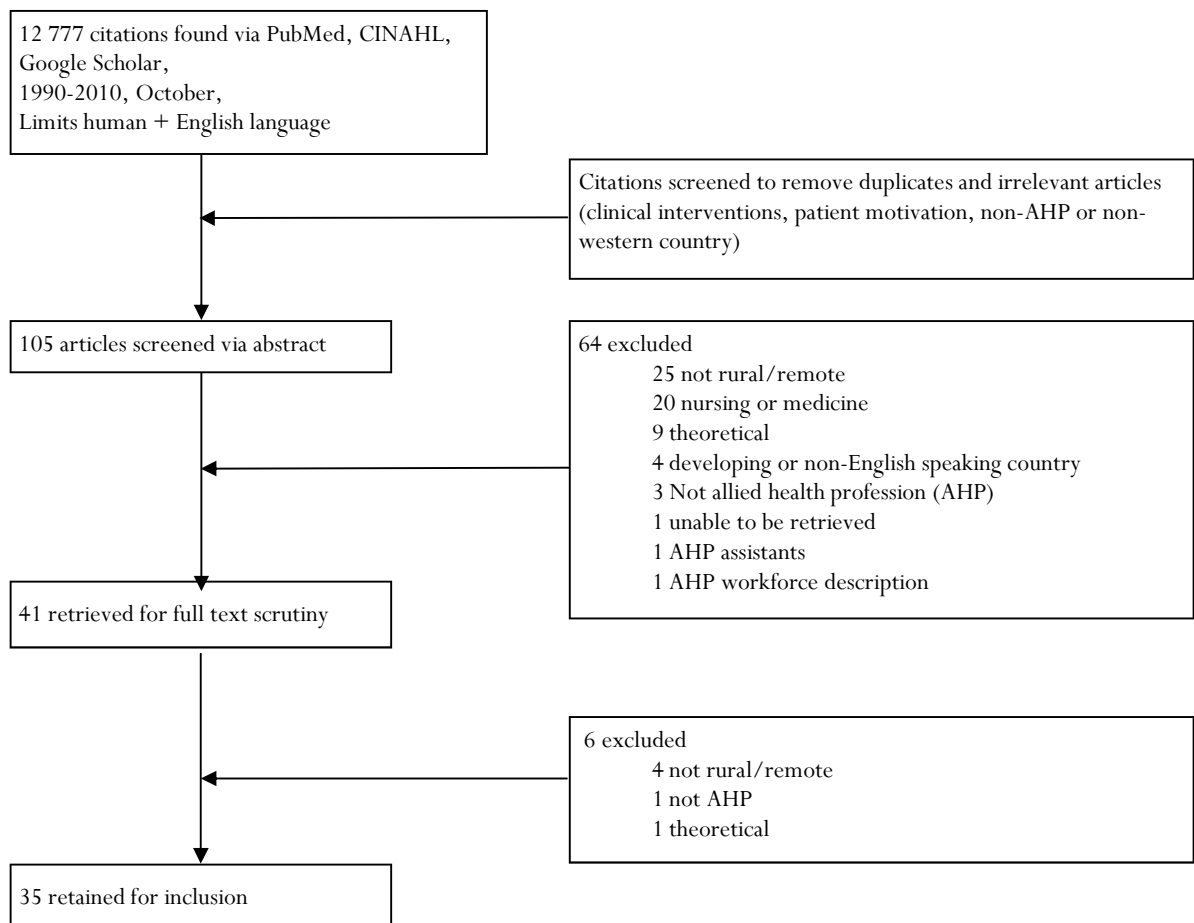
The factors that motivate AHPs to work in remote and rural areas are of considerable interest to both service providers and policy-makers because recruitment and retention of AHPs to these areas is problematic<sup>11</sup>. One model showed that the risk of an AHP leaving a remote or rural position is twice that of a nurse or doctor<sup>11</sup>. There is a body of descriptive research that has examined the contributors to recruitment and retention; however, almost no literature has looked at the motivation of remote and rural AHPs from the perspective of extrinsic and intrinsic motivation. This literature review examined the incentives affecting motivation in AHPs working in remote and rural areas, offering

new approaches to improving recruitment and retention. In particular, it looked for the balance of extrinsic and intrinsic incentives and asked how this new insight can assist in the development of recruitment and retention strategies and practices.

## Method

Literature was retrieved for this investigation (October 2010) using the PubMed and CINAHL electronic databases as well as Google Scholar (Fig1). Key words included allied health professional/personnel, motivation, job satisfaction, rural, remote, recruitment, retention, workforce, career decision, vocation, in addition to specific allied health professional titles (eg occupational therapist, audiologist). Variants on professional titles were used where appropriate (eg speech pathologist, speech-language pathologist, speech therapist). Snowballing techniques were then applied whereby the reference lists of retrieved publications were searched for other relevant citations. Initial inclusion criteria included Australian-based research studies or systematic reviews published between 1990 and October 2010; however, the search was broadened to include other English-language studies or reviews in developed countries. If studies clearly included AHPs plus other health professionals, they were included; however, articles specifically focussed only on doctors or nurses were excluded. Studies of AHP student perceptions of remote and rural work were included.

A variety of definitions for 'rural' and 'remote' was found in the retrieved literature so for the purposes of this article the terms are used in a common-sense fashion to refer to the range of communities beyond major metropolitan areas. Similarly, the term 'allied health' is one that currently has no agreed definition, however, is generally understood to be inclusive of health professionals with a tertiary qualification, eligible for registration with a recognised professional body or board, who 'apply their skills to restore optimal physical, sensory, psychological, cognitive and social function' (p4)<sup>34</sup>. This excludes health professionals with a specific medical or nursing qualification. Included allied health professions are listed (Table 1).



**Figure 1: Search strategy results.**

## Results

The results of the search are detailed (Fig1). More than 1000 articles were retrieved initially by the first author; however, full papers merited scrutiny by all authors when they met the inclusion criteria. Thirty-five studies; 26 Australian, five Canadian, three American and one comparing American and Canadian AHPs, were included. When the article sought to answer research questions that were broader than the motivation of AHPs to work in remote and rural areas, only those findings specific to motivation have been included. The methodology in the eligible articles was predominantly survey or focus group studies using a mix of qualitative and

quantitative analyses. An overview of each study is provided as are the major findings related to motivation (Table 2).

Australian research was most prominent in the retrieved articles. The reasons for this could include that Australia has a historical context rooted in the importance of rural areas. Additionally it has the third lowest population density in the world (after Namibia and Mongolia; Canada is eighth, USA is 53rd and UK is ranked 161 of 193 countries counted)<sup>35</sup>, yet as a developed country Australia has the resources to invest in research capacity and infrastructure to address the very significant needs of its remote area populations.



**Table 1: Allied health professions eligible for inclusion in this study**

Audiology
Nutrition & Dietetics
Exercise physiology
Occupational therapy
Optometry
Oral health professionals (dentists/hygienists/therapists)
Orthoptics
Orthotics and Prosthetics
Medical laboratory science
Medical radiation science (diagnostic and therapeutic radiography, nuclear medicine, sonography)
Pharmacy
Physiotherapy
Podiatry
Psychology
Social Work
Speech pathology

All studies reporting demographic characteristics had a predominance of Caucasian female respondents which reflects the feminised nature of the allied health workforce. Additionally respondents were largely trained in their country of residence, which reflects the current barriers to pathways for recognition of international allied health graduates. Some professions, particularly those with small workforces such as podiatry, were only represented in studies that included a range of allied health professions because there are comparatively few of these professionals working in remote areas.

The specific findings of each article were analysed using Herzberg's extrinsic and intrinsic classification. The results of this further analysis are shown graphically according to the number of articles reporting each extrinsic incentive (Fig2), and the number of articles reporting each intrinsic incentive(Fig3). The vertical axis in each figure presents the incentives reported in the articles while the horizontal axis shows the number of articles reporting each incentive. Note that the horizontal axis has a positive and negative side, depending on the influence of the incentive. An incentive could create a positive effect by its presence, for example 'family nearby'. Conversely an incentive could create a

negative effect by its presence (eg 'large caseloads') or by its absence (eg 'lack of work resources').

Twenty different extrinsic and 18 different intrinsic incentives were mentioned a total of 246 times. Of these, a comparison of Figures 2 and 3 demonstrates that extrinsic factors with a negative influence ( $n=115$ ) comprise almost half of all incentives mentioned, while intrinsic incentives with a negative effect are the least frequently reported ( $n=18$ ). Incentives that influence positively were reported at similar frequencies for both extrinsic ( $n=54$ ) and intrinsic ( $n=59$ ) incentives.

## Discussion

Individually each research article has a small sample size but combined the data represents strikingly similar views on remote and rural recruitment and retention incentives from more than 3000 AHPs. The factors described in the allied health literature are consistent with those described in literature relating to nurses, doctors and teachers in underserved areas<sup>16,17,61</sup>.



**Table 2: Main literature findings on motivation of rural and remote allied health professionals**<sup>5,8,9,11,24,27,28,31-33,36-60</sup>

Author (Year) [ref]	Study design	Participants (response rate)	Study outcome	Main findings relevant to motivation incentives
O'Toole & Schoo (2010) [36]	Mixed methods design (self-developed survey)	72 Australian rural private AHPs (response rate 40%)	Explored participant perception in regard to their contribution to rural health system	Private and public sector partnership recommended to address extrinsic incentive challenges
Wielandt & Taylor (2010) [37]	Quantitative survey	59 Canadian rural OTs	Identified rewards and challenges of rural work	Rewards (intrinsic and extrinsic) identified more frequently than challenges
Humphreys, Wakerman, Kuipers et al (2009) [11]	Multi-pronged research (literature review, data collection)	Rural and remote Australian health services (medical, nursing, AHP, AHW)	Developed workforce retention framework for rural and remote health services	Concluded that both intrinsic & extrinsic factors important but extrinsic incentives have potential to reduce turnover
Humphreys Wakerman, Pashen et al (2009) [5]	Literature review	Australian rural and remote health services	Described effectiveness of retention incentives utilised by services	Extrinsic & intrinsic incentives both vital for retention but no one size fits all approach
Manahan, Hardy, MacLeod (2009) [24]	Qualitative (semi-structured interview)	26 AHPs in rural and northern Canada	Identified factors that affect motivation for recruitment and retention in rural areas	Both intrinsic and extrinsic factors influential in recruitment and retention
McAuliffe & Barnett (2009) [38]	Literature review	–	Described student OT perceptions of rural practice	Intrinsic incentives have a positive effect; while extrinsic incentives could be positive or negative
Allan, Crockett et al (2007) [39]	Qualitative (in-depth interview & focus group) - grounded theory approach	Six rural Australian pharmacists & 5 SW; & rural AHP focus group	Identified professional and personal factors that influence commitment to rural practice	Both intrinsic and extrinsic incentives found to be influential in retention; intrinsic incentives offset extrinsic disincentives
Blood, Cohen et al (2007) [40]	Quantitative	332 (61 rural) American school-based audiologists	Investigated differences in job burnout between audiologists in rural, suburban or urban schools	Rural group more emotionally exhausted and lower on personal accomplishment (intrinsic incentive)
Gillham & Ristevski (2007) [41]	Qualitative (semi-structured interviews)	38 rural Australian AHPs, 8 students, 7 managers, 18 AHPs and 10 former AHPs	Identified recruitment and retention issues for AHPs in regional health services	Financial (extrinsic) incentives important for recruitment Both extrinsic and intrinsic incentives important for retention
Hall, Garnett et al (2007)[42]	Quantitative (self-developed survey, modified Delphi approach)	71 dental professionals (currently, or recently, working in remote Australia)	Investigated importance of motivation incentives in recruitment, retention and separation	Novelty (intrinsic) & financial reward (extrinsic) important for recruitment but not long-term retention (counteracted by stressful work environment (extrinsic))
McAuliffe, Chenoweth et al (2007) [43]	Mixed methods (self-developed survey with quantitative and qualitative data)	177 final year SW or human services students from 7 Australian universities	Described student perception of rural & remote work, specifically barriers and incentives	Extrinsic incentives believed to have positive recruitment influence but seen to be inadequate
Williams, D'Amore, McMeeken (2007) [44]	Mixed methods (self-developed survey or phone interview)	84 rural Australian PTs (response rate 79%)	Investigated demographic profile, career choice, education & professional needs	Negative extrinsic incentives dominated Intrinsic incentives reported as both positive and negative
Devine (2006) [45]	Qualitative (semi-structured interviews) phenomenological approach	6 Australian rural OTs and 4 academics from an OT training program	Explored perceptions regarding attraction to, challenges of and skills required in rural practice	Participants generally satisfied with rural work Extrinsic incentives predominantly negative
Harding, Whitehead et al (2006) [28]	Qualitative methodology: (interviews with a purposive sample)	12 pharmacists in rural Australia	Explored recruitment and retention factors	Positive extrinsic incentives assisted recruitment but outweighed by extrinsic disincentives Intrinsic important for retention





Table 2: cont'd

Author (Year) [ref]	Study design	Participants (response rate)	Study outcome	Main findings relevant to motivation incentives
Sidell, Boughton et al 2006 [46]	Qualitative design (self-developed survey)	117 SWs in rural Pennsylvania, USA (response rate 65%)	Investigated reasons for rural career	Extrinsic incentives positively influenced recruitment but created challenges when absent Intrinsic incentives mostly positive
Stagnitti, Schoo, Dunbar, Reid (2006) [47]	Quantitative/Qualitative (survey)	138 AHPs in south west Victoria, Australia	Identified professional needs of workforce in relation to retention	Extrinsic factors mostly negative Intrinsic incentives mostly positive
Kruger & Tennant (2005) [48]	Quantitative/ Qualitative (self-developed survey)	90 rural/remote Australian oral health professionals (dentists, therapists and hygienists)	Analysed incentives for recruitment, retention and separation	Lifestyle (extrinsic) most important recruitment influence Extrinsic needs generally not met and became reason for separation
Stagnitti, Schoo, Dunbar (2005) [49]	Quantitative (self-developed survey with open and closed questions)	138 AHPs in rural Australia (response rate 37%)	Identified AHP access and attitudes to continuing professional development	No significance found between continuing professional development (extrinsic incentive) and intention to stay
Denham & Shaddock (2004) [50]	Mixed methods (self-developed survey, focus group, key informants)	39 rural Australian SPs, OTs and PTs working in developmental disability (response rate 67%)	Investigated influences on recruitment and retention	Intrinsic incentives predominantly positive and extrinsic incentives predominantly negative
Heaney, Tolhurst, Baines (2004) [33]	Qualitative (focus groups with a semi-structured theme approach)	23 dietetic students and new graduate dietitians from an Australian university	Investigated influential factors for novices regarding rural practice	Both extrinsic and intrinsic incentives influenced attitudes
Lonne & Cheers (2004) [51]	Quantitative/Qualitative (Longitudinal design with a self-developed survey)	194 Australian rural SWs	Investigated advantages and disadvantages of rural practice to assist recruitment and retention	Positive extrinsic incentives outweighed by extrinsic disincentives and affected retention. Intrinsic incentives (positive and negative) evident
Steenbergen & Mackenzie (2004) [52]	Qualitative	9 Australian new graduate rural OTs	Identified availability and impact of professional support	Professional support (extrinsic) encouraged independence. Lack of support reduced satisfaction & professional confidence
Battye & McTaggart (2003) [53]	Qualitative (focus groups, key informants)	Key allied health stakeholders in remote Australia	Described development of a sustainable remote allied health primary care outreach service	Service planning must include provision of intrinsic and extrinsic incentives
Lee & MacKenzie (2003) [54]	Qualitative (semi-structured interviews)	5 Australian new graduate rural OTs	Explored the rural new graduate experience	Multiple extrinsic & intrinsic incentives attract new graduates to rural (extrinsic frequently lacking; intrinsic valued)
Blood, Ridenour et al (2002) [55]	Quantitative (randomised sample)	1207 American school-based SPs (response rate 60.4%)	Investigated job satisfaction including effect of rurality on job satisfaction	Rurality not predictive of satisfaction (76% satisfied); smaller caseload size (extrinsic) predictive of satisfaction
Kaegi, Svitich et al (2002) [56]	Quantitative/Qualitative (self-developed survey)	56 Canadian school-based SPs (29 rural)	Compared job satisfaction across work locations	66% of rural group satisfied Intrinsic incentives provided most satisfaction & extrinsic incentives mostly disincentives (except caseload size inversely related to satisfaction)
Millsteed (2001) [31]	Qualitative (snowballing approach, semi-structured ethnographic interviews and inductive analysis)	10 Australian OT's working in urban with recent rural experience	Identified factors that affect retention	Extrinsic incentives negative in influence with exception of rural lifestyle. Intrinsic incentives mostly positive
Parkin, McMahon et al (2001) [57]	Program development and evaluation	29 Australian rural & urban AHPs and managers	Described a work experience program linking rural with metropolitan hospital AHPs	Personal goals & expectations met (intrinsic); skills, support networks and access to resources (extrinsic) gained



Table 2: cont'd

Author (Year) [ref]	Study design	Participants (response rate)	Study outcome	Main findings relevant to motivation incentives
Solomon, Salvatori, Berry (2001) [27]	Mixed methods (self-developed survey)	129 OTs and PTs in rural Canada (response rate 74%)	Examined perception of recruitment and retention factors	Extrinsic (positive and negative) and (positive) intrinsic incentives influenced recruitment and retention
Fitzgerald, Hudson, Hornsby (2000) [8]	Mixed methods (survey, focus groups)	Over 1620 AHP working in rural and remote Australia.	Investigated support, education and training needs	Incentives with a negative influence dominated findings with more extrinsic than intrinsic incentives highlighted
Bent (1999) [32]	Qualitative (semi-structured interviews)	17 Australian remote PTs, OTs and SPs (100% sampling of public sector)	Examined professional environment, work practices, incentives and challenges of remote work	Intrinsic factors valued; extrinsic incentives largely absent and caused dissatisfaction Very high turnover
Hughes (1998) [58]	Quantitative (self-developed survey)	140 Australian rural and remote dietitians	Identified rural workforce issues and specific incentives and disincentives for rural and remote practice	Job satisfaction high (98%) Intrinsic incentives included responsibility and autonomy Extrinsic incentives largely disincentives
Foster & Bharvey (1996) [59]	Mixed methods design (survey)	87 SPs working in rural Canadian schools in 2 provinces (response rate 67%)	Examined retention priorities	Slight differences between provinces however positive intrinsic & extrinsic incentives both important
Beggs & Noh (1991) [60]	Quantitative/qualitative(self-developed survey)	196 Canadian PTs (Northern Ontario) (response rate 82%)	Established baseline information regarding retention	Perception of career development options (extrinsic) was most significant factor associated with intent to relocate to urban
Huntley 1991 [9]	Mixed methods (grounded theory approach, interviews & self-developed survey)	98 rural AHP interviews and 158 surveys (response rate 79%) (included 11 AHPs)	Established factors important for recruitment, retention and separation	Challenge (intrinsic incentive) was positive for recruitment Negative extrinsic & intrinsic incentives impacted on retention

AHP, Allied health professionals; OT, Occupational therapists; AHW, Aboriginal health workers; SW, Social workers.  
PT, Physiotherapists (Physical therapists in North America); SP, Speech pathologists (Speech-language pathologists in North America).

## Extrinsic incentives or hygiene factors

Extrinsic incentives are provided by the job. In the literature reviewed, they included both tangible rewards such as salary and less tangible ones such as 'lack of community knowledge of role' (Fig2). The power of extrinsic rewards lies less in what the rewards provide and more in what they prevent. They act to prevent job dissatisfaction. The absence of adequate extrinsic rewards reduces job satisfaction; however, the presence of extrinsic incentives does not increase job satisfaction<sup>14</sup>.

Overall, the results in Figure 2 show extrinsic motivation incentives characterised by a negative influence, predominated in two ways. More disincentives were reported and more articles reported each disincentive

compared with incentives characterised by a positive influence. Herzberg's hygiene theory, where lack of extrinsic reward reduces job satisfaction, flags the possibility that AHPs who work in remote and rural areas are likely to have reduced job satisfaction with correspondingly increased rates of turnover. This is supported by authors who demonstrated increased rate of turnover for AHPs in remote areas compared with other health professionals in remote areas<sup>11,32</sup>.

Many of the extrinsic incentives are linked. Poor access to professional development<sup>8,28,41,48</sup> and insufficient supervision<sup>8,52</sup> could both exacerbate the sense of professional isolation. For example, occupational therapists reported difficulty accessing feedback on their performance<sup>45</sup>. Services that implemented strategies to improve supervision and professional development opportunities reported positive outcomes<sup>47,53</sup>; however, it should be noted that one study<sup>62</sup>





failed to find a significant association between access to professional development and intention to stay.

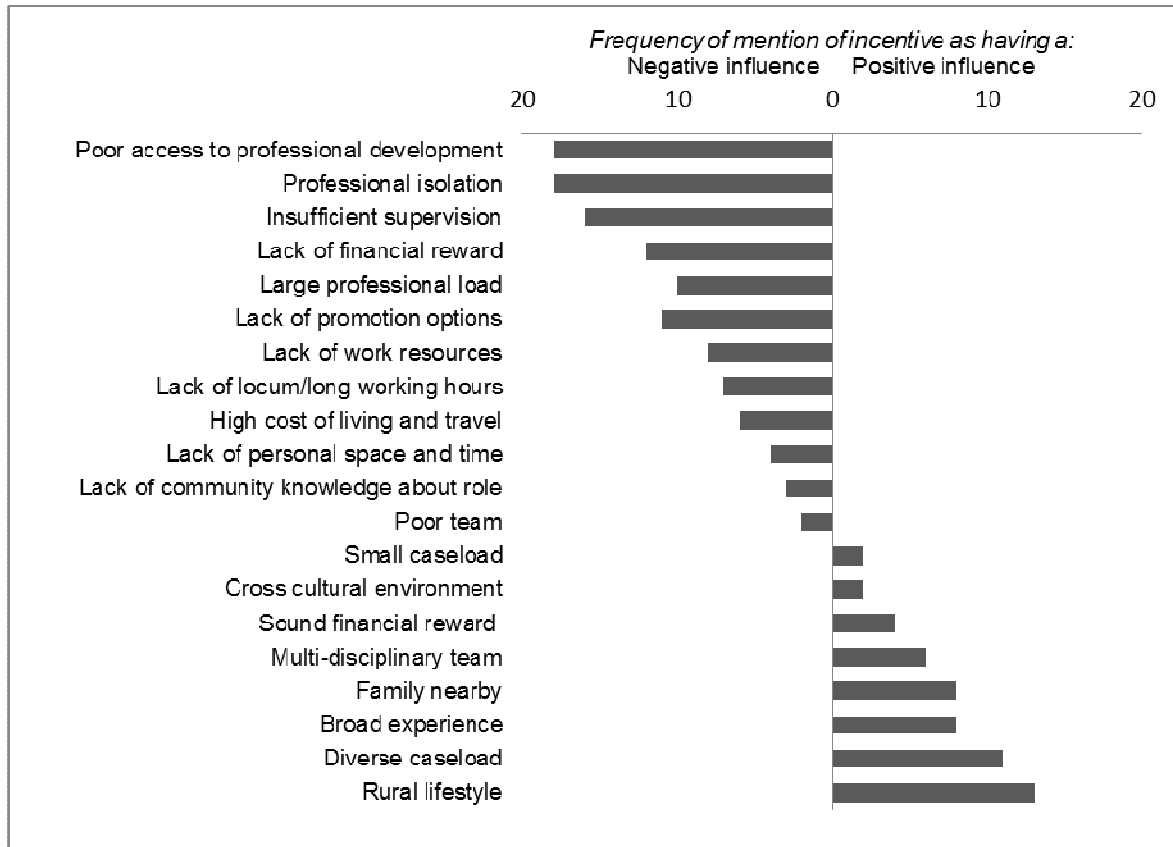
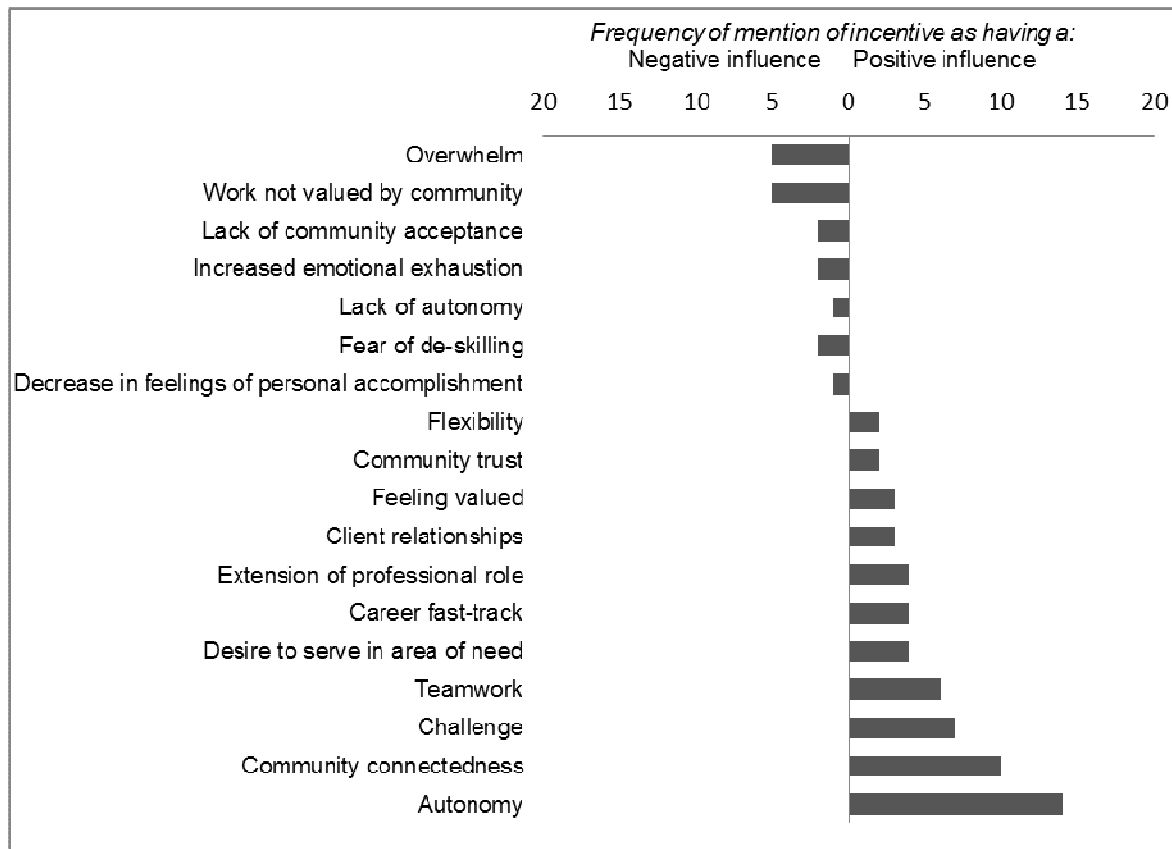


Figure 2: Number of articles reporting each extrinsic incentive.

There were mixed findings on the financial implications of remote and rural work. Private practitioners tended to report a stronger financial motivation to work rurally, particularly pharmacists, physiotherapists and dentists<sup>39,42,63</sup>. Interestingly, a study of the Northern Territory (Australia) dental workforce reported that financial incentives did not have lasting effects for retention because dentists recruited on the basis of salary tended to be retained for 5 years or less<sup>42</sup>. In contrast, young graduates who believed their responsibilities were greater than their financial compensation were dissatisfied<sup>31</sup>.

A frequently mentioned positive extrinsic incentive for AHPs to work in rural or remote areas is the perception that these positions facilitate rapid development of professional and administrative skills due to the broad experience and diverse presenting caseloads<sup>24,39,44</sup>. New graduates find this particularly attractive as it provides a career fast-track, a growth experience, in order to secure a subsequent position in an urban area<sup>31,54</sup>. However, the resultant turnover disadvantages the region and has led to the labelling of remote and rural areas as 'professional nurseries'<sup>64</sup>.



**Figure 3: Number of articles reporting each intrinsic incentive.**

In contrast to the desirable career fast-track potential is the anxiety expressed by some AHPs over losing professional skills when working in an isolated remote or rural position<sup>9,31</sup>. Perceptions of metropolitan peers not respecting skills obtained in remote or rural practice were reported<sup>57</sup> but often found to be untrue when returning to urban positions<sup>31</sup>. Anxiety concerning the maintenance of professional skills is associated with frustration that specialisation and a career pathway for rural generalist clinical AHPs does not exist<sup>44,55,56,60</sup>. Creative professional development opportunities and two-way collaboration with metropolitan centres could assist; however, policies and strategies to fund and backfill positions during leave must be implemented<sup>57</sup>. Interestingly, a recent study on rural Canadian occupational therapists reported more reward than challenge in rural work and theorised that access to

professional development and support using telehealth and other distance technologies may be making a positive difference<sup>37</sup>.

A number of extrinsic incentives were related to the characteristics of rural living. Rural lifestyle<sup>24,48</sup>, the presence of family locally<sup>42,46</sup>, and positive financial affordability make some rural areas more attractive than urban areas<sup>24,50</sup>. Conversely, it was clear that for some AHPs the cost of living and the cost of accessing professional and social networks are higher in remote and rural areas<sup>32,45</sup>. Thus personal views on rural living, desire to locate near to family and the financial implications of the particular remote or rural location are unique to individuals. Selection of rural-background students into training programs and adequate provision of work and educational opportunities in rural areas for extended



families<sup>48</sup> could positively influence retention at critical life stage decision-points.

A large number of studies highlighted the stress resulting from managing large caseloads in remote areas<sup>45,59</sup>. In stark contrast only two studies reported manageable caseloads and concomitant increased job satisfaction<sup>53,55</sup>. Lack of locum support combined with long working hours<sup>39,40</sup>, lack of access to air travel<sup>56</sup> (which would reduce time required to travel to clients), excessive travel<sup>8,44</sup> as well as the idea that 'there is nobody else' (ie positions are left unfilled<sup>32</sup>) add to the stress.

Overall, the studies demonstrated that hygiene factors or positive extrinsic incentives were lacking, underscoring the risk of continued high turnover of AHPs working in rural and remote areas, in part from reduced job satisfaction.

## ***Intrinsic incentives***

Intrinsic incentives are what makes a person feel good about engaging in their job<sup>14,65</sup> and contribute directly to job satisfaction. In the literature reviewed this included themes such as challenge and autonomy. A predominance of intrinsic incentives with a positive effect is shown (Fig2).

Autonomy was the most frequently mentioned intrinsic reward and is aligned with other literature<sup>14,66</sup> which emphasises the importance of autonomy in building motivation. Autonomy was valued in regard to decision-making about caseload management and schedules<sup>39</sup> when it allowed work to be structured in a way that suited the professional<sup>45</sup>, and because it allowed professionals to respond creatively to community needs rather than being locked into a bureaucratic system of service delivery<sup>51</sup>.

There was a strong theme of connectedness operating as an intrinsic incentive. While the presence of extended family enhanced connectedness to communities<sup>24</sup>, professionals also reported an emotional commitment to rural life<sup>39</sup>. Rural communities can enhance or reduce the motivation of AHPs to remain in their community by facilitating friendships and support networks<sup>42</sup>; the isolation experienced by young professionals can be alleviated by access to peers<sup>54</sup>.

Educational<sup>48</sup> and employment provision<sup>28</sup> for the AHP's family also enhanced feelings of belonging.

Challenge, as an intrinsic motivator, exists on a continuum. Intrinsic motivation will flourish when the level of challenge contributes to a sense of achievement and fulfilment but does not overwhelm<sup>67</sup>. The AHPs who felt they could not meet the needs of the community reported feeling overwhelmed<sup>56</sup>. For example, new graduates enjoyed the challenge of diverse responsibilities found in remote and rural work and felt that the long-term career benefits outweighed the disadvantages<sup>54</sup>, while experienced professionals looking for a new challenge were attracted by the novelty of working with Indigenous communities<sup>32</sup>. The drawback to this finding is that novelty alone appears insufficient to influence long-term retention. Hall et al demonstrated statistically that retention of dentists in remote areas who were motivated by the novelty of cultural challenge was 5 years or less<sup>42</sup>. Workplaces seeking to reduce high recruitment costs<sup>11</sup> should look beyond novelty as an inducement and ensure that new professionals are well oriented and supported for the challenges they will encounter.

Retention is negatively impacted when a professional does not feel their work is significant or respected. Therefore it is of concern that some studies found AHPs felt their work was not valued by the community<sup>50</sup>. This was more likely to be an issue for professionals such as occupational therapists whose role can be diverse. Supportive management practices such as timely recruitment to vacancies<sup>32</sup>, locum provision, teamwork<sup>54</sup> and a critical mass of professionals<sup>50</sup>, strong liaison with other local health providers and engagement with the community<sup>51</sup> to ascertain their needs could alleviate this feeling. Furthermore, when positions are vacant for long periods, as is often the case in remote areas, it is much harder for incoming professionals to build networks and establish credibility and trust<sup>31</sup>.

## ***Job satisfaction and the imbalance of extrinsic and intrinsic incentives***

The findings of this literature review have demonstrated that the extrinsic/intrinsic classification is a useful framework



from which to consider the motivation of AHPs to work in remote and rural areas. Figures 2 and 3 demonstrate the overwhelming predominance of extrinsic disincentives compared with all other incentives. Given Herzberg's contention that extrinsic disincentives reduce job dissatisfaction, the burden of negative extrinsic factors would suggest the likelihood of a dissatisfied workforce.

Few studies formally assessed job satisfaction. Those that did frequently commented that AHPs were dissatisfied with aspects such as conditions of employment<sup>31</sup>. Despite these frustrations, summary comments often referred to AHPs being satisfied with remote and rural work<sup>58</sup>. These kinds of statements are likely to refer to the intrinsic factors which are providing a measure of satisfaction but cannot fully mediate the extrinsic disincentives. Congruent with literature on urban AHPs<sup>68</sup> and nursing<sup>69</sup> it could be hypothesized that high turnover is related to job dissatisfaction from extrinsic incentives.

### **Policy implications**

Evidence from the medical workforce suggests that policy aimed at addressing the extrinsic disincentives may make a difference to AHP workforce recruitment and retention. Australian government policy provides significant extrinsic incentives to the rural and remote medical workforce as a successful strategy to reduce shortages<sup>5</sup>, with the literature showing remote and rural doctors to also have a lower risk of turnover than AHPs<sup>11</sup>. Finally, the literature of GP job satisfaction demonstrates reasonable job satisfaction regardless of location<sup>70</sup>. Given the complementary relationship between extrinsic and intrinsic incentives, fortifying existing intrinsic incentives might provide a parallel strategy to addressing recruitment and retention challenges.

### **Limitations and further directions**

This analysis was unable to capture data on the interaction between incentives and life stage because this workforce demographic was not always examined in the literature. It appears that new graduates are more willing to cope with an absence of extrinsic reward because of the potential benefits

they gain. Looking at life stage could be an important avenue for future research<sup>71</sup> with the potential to reduce retention problems further by implementing life stage appropriate strategies.

## **Conclusion**

Extrinsic motivation factors for remote and rural AHPs are clearly deficient. Recruitment and retention strategies must address this need urgently. While it is clear that the intrinsic incentives which contribute to job satisfaction are present they appear insufficient to mediate for the burden of extrinsic disincentives which contribute to excessively high turnover. The absence of positive extrinsic incentives is eroding job satisfaction that could improve retention. As demonstrated in the literature<sup>53,57</sup>, remote and rural healthcare organisations that encourage and foster the fulfilment of the intrinsic motivation of a professional, as well as providing the extrinsic elements to motivation have the most potential to recruit and then enhance the longevity of the AHP in that position.

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