



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

ATTRACTING AND KEEPING NURSING PROFESSIONALS IN AN ENVIRONMENT OF CHRONIC LABOUR SHORTAGE

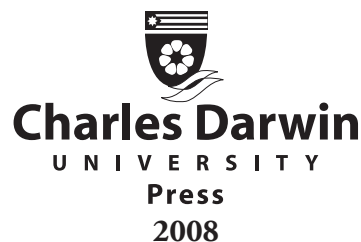
**A STUDY OF MOBILITY AMONG
NURSES AND MIDWIVES IN THE
NORTHERN TERRITORY OF
AUSTRALIA**

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EXECUTIVE SUMMARY

The study of mobility among Northern Territory nurses and midwives (including employment of overseas-qualified nurses in the Northern Territory of Australia) has been undertaken in three parts. A team from the School for Social and Policy Research at Charles Darwin University has been responsible for interviewing nurses and midwives and using that to prepare a questionnaire that explores motivations for coming to the NT, staying or leaving the NT workforce. The Health Gains Planning branch of the Department of Health and Families has been responsible for analysing statistical data on turnover rates and determining the economic costs of nurse and midwife turnover. The report itself is provided by Charles Darwin University for consideration by the Department of Health and Families who will respond to recommendations based on this and other complementary information.

DEMOGRAPHY

Four data sets were used to describe trends in nursing professional workforce turnover in the Northern Territory (NT): nurse registration data (3,756 people registered in the NT at November 2007), Australian Bureau of Statistics (ABS) census data (1,868 nursing professionals living in the NT at August 2006), Personnel Information and Payroll Systems (PIPS) data (1,671 people employed by the Department of Health and Families in 2006–07) and data from the survey carried out as part of this study (1,006 people at November 2007). The number of nurses and midwives working in the NT government increased steadily over the recording period 1994–07, with seasonal fluctuations peaking during the middle of the year and lowest in early January. During this time the proportion born in Australia and resident in the NT remained at a steady 75% but the workforce as a whole grew older and the proportion of males increased from 5% to 11%. A distinct cohort of nurses and midwives who arrived in the 1980s, married, had children and are now nearing retirement could be tracked through a time series available from ABS census data. Interstate movements have been high, and have been increasing even though the overall annual turnover of government nursing professionals (the number of separations/year) has declined from over 60% to below 40% over the last decade, and the stability (number in the same job at start and end of year) has increased from about 64% to over 72% in the same time period. However, while the proportion staying for two years has increased, many of the longer-stayers are now leaving employment. Turnover rate varies greatly between years and among branches of the Department, with particularly high rates of turnover and low stability in smaller more remote units.

Three trends were apparent from this study. There is a cohort of nurses and midwives who have worked in the NT since the 1980s who are now nearing retirement. Secondly a sizeable proportion of nursing professionals live outside the NT. This group is older than average. Third, while the rate of turnover is still high, at about 35% per year, it has been steadily declining. Nevertheless there is cause for concern as both the resident and the migratory workforce are getting older which will exacerbate the shortage of nurses and midwives in the next decade.

MOTIVATIONS

One group of long-staying nurses was identified along with four classes of more mobile nursing professionals. A substantial cohort of nurses, many of whom are now community nurses in Darwin, arrived in the 1980s and became embedded in the community. They are now nearing retirement having served in the NT throughout their careers. Those who stay and leave early are the young travellers, many of whom have jobs in hospitals, visiting older nurses from interstate, disappointed idealists and those whose contract simply ends without renewal. Most think the NT a great place to live. Some leave because they never intended to stay – they are travelling anyway, it is too hot or too far from the places they call home. Others might stay longer if administrative systems improved, if management was more sympathetic or it was easier to find housing.

The top ten reasons for nurses/midwives **coming** to work in the NT, in rank order, were:

1. Expectation of job availability
2. Opportunities for new experiences
3. Expectation of an opportunity to use a wide range of skills
4. Satisfaction with providing an important service in an area of need
5. Opportunities for professional development
6. Attraction of the NT lifestyle
7. Opportunity to work with Indigenous people
8. Attraction of the natural environment
9. Opportunity to experience Indigenous culture
10. Financial incentives (better salary/wages)

The top ten reasons for nurses/midwives **staying** in the NT, in rank order, were:

1. Sense of professional independence and responsibility (autonomy)
2. Clinical variety and challenge
3. NT lifestyle
4. Natural environment
5. Income
6. Sense of community
7. Contributing to Indigenous health
8. Size of city/town where living
9. Personal relationships with staff and patients
10. Opportunities for professional development

The top ten reasons nurses/midwives **left** the NT, in rank order, were:

1. Family and/or social networks
2. Stressful work environment (burnout)
3. Career opportunities elsewhere
4. Lack of support from management
5. The 'distance from everywhere' factor (e.g. expense/inconvenience of isolation, quality of supermarket goods)
6. Unreasonable workload
7. Further travel
8. Cost of living in the NT
9. Desire for change in lifestyle
10. Slow rate of innovation in work practices

Remote and community nurses tended to stay longer than most while hospital nurses left sooner. The following reasons for coming, staying and leaving were associated with longer stays in the NT:

- Coming: attraction of NT lifestyle; perception that the NT is a good place to raise children; provide better future for myself and family
- Staying: clinical variety and challenge; family and/or social networks; no reason to leave or move; NT lifestyle
- Leaving: burnout; desire for change in lifestyle; limited opportunity for career progression; retirement

The following reasons for coming, staying and leaving were associated with shorter stays in the NT:

- Coming: attraction of tax benefits associated with remote location; opportunities for new experiences; opportunity for a working holiday; opportunity to experience Indigenous culture
- Staying: contributing to Indigenous health; income; opportunity to work in remote locations; workplace benefits
- Leaving: climate; completed employment contract period; expectations of work experience did not match reality; problems with housing

Three factors were also revealed to be important by written comments that reinforce the results described above. The first was inappropriate workplace behaviour such as bullying. Secondly the desire for greater financial incentives to stay was expanded upon by many respondents. Thirdly the dissatisfaction with management evidently influenced many nurses and midwives.

OVERSEAS NURSES

About 23% of surveyed nurses and midwives come from overseas, and 13% have qualified overseas. Most come from New Zealand or the UK but many other countries are represented. The NT receives a large proportion of younger immigrants, of whom many are on 457 Visas, which they extend to citizenship as soon as possible. Capability in the workforce is highly variable, many being able to perform at a high level as soon as they arrive, others taking more than six months. While all necessarily speak English, the work-place use of language, including jargon, acronyms and locally-specific names for medications, can take some time getting used to. However, having become established, overseas-qualified nurses and midwives often stay in the NT longer than their Australian-qualified counterparts.

COSTS

Costs of staff turnover were calculated from records of the Department of Health and Families (DHF), and were estimated to average \$10,734 per turnover (\$5,963 – \$22,123). This was broken down into:

- Recruitment 40% (\$4,659: \$2,074 – \$7,485)
- Reduced productivity (new hire) 28% (\$3,727: \$755 – \$11,484)
- Vacancy 21% (\$1,511: \$0 – \$5,336)
- Training 7% (\$699: \$71 – \$2,726)
- Termination 1% (\$139: \$65 – \$309)

The total annual cost of nursing workforce turnover for the department was estimated to be \$6,884,519. Costs varied considerably between work sectors, with remote being the most expensive. The methodology applied in these estimates is conservative and in particular does not include the costs of reduced service delivery resulting from high staff turnover and applies a modest weighting for reduced productivity of new recruits, which are major cost components in a number of international studies.

RECOMMENDATIONS

Recruitment

1. Recruitment campaigns should emphasise the features of the NT that make it a pleasant place to live and raise a family.
2. Target potential employees who already have family living here. If return airfares are provided to employees from outside the NT, ensure those living in the NT are provided with benefits of equivalent value.
3. Tailor recruitment to attract nurses/midwives who are likely to stay in the NT for extended periods, possibly through a screening survey. Different strategies should be executed to maximise the chances of hiring the right staff for different areas (e.g. hospital, remote).
4. Recruitment to remote areas should be honest about both the high demands and the need for resilience. Working as a nurse in a remote area has many advantages but it is not a tourist experience and if sold as such, will attract mostly short-term employees, who are likely to leave disappointed and dispirited.
5. Put in place protocols that will ease difficulties in finding accommodation upon arrival in housing-limited locations. This may include the purchase and rental of government housing stock, partnerships with real estate agents to help people find places to stay or initial rental assistance (although this will need to be managed so that long-term employees are not penalised). If housing is purchased, rents should be fed back into the maintenance of properties. Recruits from overseas with temporary visas should be given special treatment since Foreign Investment Review Board rules limit purchase opportunities.
6. Provide an information package facilitating settlement of nursing professionals into the community, including a map and information about available services (childcare, healthcare, public transport, etc.). Electronic links could be attached to communication with the employee before they arrive, particularly for nurses/midwives recruited abroad.
7. Monitor the impacts of recruitment interventions to avoid and correct perverse consequences and test their cost-effectiveness. In particular, ensure records of employment and employment history record recruitment-related incentives or employment conditions. On recruitment include an entry interview on reasons to work in the NT.
8. Create an online 'virtual community' for past, present and future NT nurses which lets them interact with each other and so reduce the sense of isolation. While this happens informally, it could also help the Department monitor currents of opinion and make it easier for nurses to find a compatible community with which to interact.

9. Form partnerships with other state and territory health departments and with intrastate agencies to help 'manage' the mobility of nurses/midwives collaboratively. There is always going to be an element of the workforce who wish to be mobile. Partnerships with other health agencies may assist mobility and reduce recruitment transaction costs. Recruitment into one system could therefore be the equivalent of recruitment into a network of systems. Partnerships with intra-state/interstate health services will also provide short-term strategic support, relief and capacity building.

Retention

10. Institute management training for nurse managers. Training for nursing and midwifery does not currently include training for personnel management, which is vital in an area as complex as nursing. Most nurse managers do an excellent job but increasing expertise and strategies in this area could be a useful investment. If well integrated into the system, the opportunities for management training could make the prospect of working in the NT more attractive.
11. Institute a system of flexible contracts, with appropriate monitoring of responses. While institution of the two year contract has increased retention until the end of the contract, it has resulted in a sudden turnover at that time. Other contracting strategies may have different perverse effects that can only be detected through ongoing analysis of workforce statistics. Alternatives could be:
 - a. Contracts that run for successive 3 month periods in a 'placement' approach, with appropriate 'down-time' between placements. Although this will have the disadvantage of having localised turnover, the nurses/midwives will gain experience from several work places/locations and may reduce risk of 'burnout'.
 - b. Contracts with the option of automatic extensions to reduce administration and instability.
 - c. Permanent part-time contracts, job sharing and other flexible employment options.
12. Examine ways to reduce and balance workloads to reduce burnout. Two of the principal work-related reasons for leaving were related to stress from too much work. While this is a perennial problem in nursing everywhere, benchmarking against other nursing and midwifery workplaces would be a valuable start.
13. For overseas-qualified nurses/midwives, institute a skills check at the commencement of their employment to identify gaps (if any) and then another one six months later. Also provide ongoing clinical support, assistance with transition to the Australian healthcare system and standards of professional nursing and support to help integration into the community.

14. Early and comprehensive training in Indigenous nursing/midwifery in a Northern Territory context. An average cost of recruitment-related training of only \$700 is extraordinarily low. One area mentioned repeatedly as a need is training in how to cater to the special needs of Indigenous patients. This applies for all nurses and midwives but particularly those qualified overseas. A cultural component covering communication with the Australian and Indigenous Australian peers and patients could be included in the Charles Darwin University bridging program. A similar program needs to be initiated for Australian-qualified nurses and midwives.
15. Training should extend to other forms of professional development through the establishment of reserved training periods. Performance of managers and staff should be assessed partly on the basis of compliance with training provisions.
16. Underwriting the bridging program (costs \$17,000 for 6 months) will enhance retention of nurses/midwives from poor countries for whom the initial up-front cost is prohibitive.
17. Commission research to explore ways of embedding nurses/midwives in the community. The strong connection between length of stay and attachment to the community warrants a management response that extends beyond the workplace. Relatively small investments in supporting nurses/midwives outside the workplace and maximising their opportunities to become connected to the community, especially soon after they arrive, will increase the chances of long-term retention.
18. Determine the cost of turnover at the work or unit level, to assess the impact on branch budgets, and of burn-out, particularly in remote communities. Such studies should look beyond the administrative costs measured in this study to the impacts on quality and cost of health care that arise from high nurse/midwife turnover.
19. Make registration/enrolment with the Nurse and Midwifery Board of the Northern Territory conditional on completion of a minimal dataset to be made available for workforce analysis. Multiple incomplete sources of workforce data inhibit early detection of and timely response to trends and lower health care outcomes.
20. Repeat aspects of the research in three years' time to identify changes in turnover, impact of interventions and identify further areas for work.

1. INTRODUCTION

Nurses and midwives are in short supply around the world, with consequences for health care performance. While this is a perennial problem, its acuity has been accentuated by a broader skills shortage in the labour force, including in other health-related professions. Stresses are coming from many directions: an ageing population, a growing private sector, public demand for services and increasing mobility are creating unprecedented demand while supply is being affected by the relative difficulty of the work environments, wage disparities with other occupations and changes in management approaches (Oulton 2006). By 2010 Australia may be short of 40,000 nurses (Karmel 2002).

In a climate of competition for skilled workers, people whose skills are in demand are likely to be highly mobile, responding to higher wages and work opportunities. Hence their migration patterns are characterised by opportunistic transience rather than permanent movement (Hugo 1994, Khoo 2002). Staff retention, or turnover, is associated with factors like job satisfaction (Collins 2000, Finn 2001, Sourdif 2004), career satisfaction and group cohesion (DiMeglio 2005), professionalism (Yoder 1995) and autonomy (Chaboyer 1999). And while some turnover can act to maximise productivity (Harris 2002), elevated levels incur high costs and cause disruption to services (Blakemore 1989). Understanding the characteristics of staff mobility and the factors influencing retention should lead to enhanced service delivery through the provision of a more stable workforce.

For the Northern Territory (NT), nurse and midwife shortages are a problem that is also a reflection of turnover in the general workforce. In the NT only the region around the capital, Darwin, is not considered as remote or very remote, so the economic and social impacts of skills shortages and difficulties in recruiting professionals are significant. Currently, at about 16% per annum, the NT has the highest rate of population turnover of any jurisdiction in Australia (Australian Bureau of Statistics 2006). For professional people it is about 24% (M. Brown pers. comm.): a situation that has remained the same for at least three decades (e.g. Carson 1994). Darwin's distance from other Australian cities, its small size and its tropical climate may also create difficulties in attracting skilled workers with communities outside the greater Darwin region facing even more impediments.

Workforce issues faced by remote communities in the NT (and in regions with similar demographic compositions such as northern Western Australia, northern South Australia and parts of Queensland), are different from those experienced in rural communities elsewhere in Australia. Similarly, the unusual demographic characteristics of the NT, with its small, young and widely dispersed population, high proportion of Aboriginal people and high non-Indigenous population turnover (Carson 1994), indicate that principles of workforce management that apply in other jurisdictions may not be relevant in the NT. Tailored approaches to the recruitment and retention of a skilled workforce are needed. These will rely on the provision of information specific to the NT.

Based on this background, research was commissioned to undertake the following tasks.

Mobility among Northern Territory nurses and midwives:

- Provide a verified estimate of the rate of turnover in different sectors of the nursing workforce
- Understand why some nurses and midwives have stayed more than one, two or five years
- Understand why some nurses and midwives leave in under one, two or five years
- Develop recommendations for management on policies that can be introduced to increase nurse retention
- Identify key performance indicators that could be used to monitor effectiveness of management interventions to reduce nurse turnover

Employment of overseas-qualified nurses in the Northern Territory of Australia:

- Understand what influences overseas-qualified nurses' retention and departure
- Learn about their employment experience as migrants and the perception of their contribution by management
- Estimate the rate of turnover of overseas-qualified nurses (data permitting)
- Formulate recommendations to increase retention of these nurses beyond their initial employment and/or residence period and increase their numbers without compromising on performance

The report consists of five sections that cover the key components and a final section drawing together the principal conclusions and making recommendations for the future.

The first section sets the context for the current study, using a range of datasets to describe the nursing and midwifery workforce in the NT – its size, age and sex structure, social makeup – and the migration trends evident through a range of datasets.

The second section covers the major results of the NT Nurse and Midwife Mobility Survey (N&MMS). For this survey, a questionnaire was sent to over 4000 nurses and midwives registered in the NT to collect information on what motivates nurses and midwives to come to, stay, and leave the NT.

Section three considers issues relating to overseas qualified nurses/midwives in the NT workforce.

The fourth section considers the economic costs of turnover rates – costs such as recruitment, training, reduced productivity, termination and vacancy.

Section five explores the qualitative information gathered from the survey. All respondents were given an opportunity to make additional comments. This section explores those comments and provides context for the quantitative survey data.

The final section draws together ideas from the previous five and makes recommendations for future recruitment and retention strategies.

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2. DEMOGRAPHY AND TURNOVER

SUMMARY

Four data sets were used to describe trends in nursing professional workforce turnover in the Northern Territory (NT): nurse registration data (3,756 people registered in the NT at November 2007), Australian Bureau of Statistics (ABS) census data (1,868 nursing professionals living in the NT at August 2006), Personnel Information and Payroll Systems (PIPS) data (1,671 people employed by the Department of Health and Families in 2006–07) and data from the survey carried out as part of this study (1,006 people at November 2007).

The number of nurses and midwives working in the NT government increased steadily over the recording period 1994–07, with seasonal fluctuations peaking during the middle of the year and lowest in early January. During this time the proportion born in Australia and resident in the NT remained at a steady 75% but the workforce as a whole grew older and the proportion of males increased from 5% to 11%. A distinct cohort of nurses and midwives who arrived in the 1980s, married, had children and are now nearing retirement could be tracked through a time series available from ABS census data. Interstate movements have been high, and have been increasing even though the overall annual turnover of government nursing professionals (the number of separations/yr) has declined from over 60% to below 40% over the last decade, and the stability (number in the same job at start and end of year) has increased from about 64% to over 72% in the same time period. However, while the proportion staying for two years has increased, many of the longer-stayers are now leaving employment. Turnover rate varies greatly between years and among branches of the Department, with particularly high rates of turnover and low stability in smaller more remote units.

Three trends were apparent from this study. There is a cohort of nurses and midwives who have worked in the NT since the 1980s who are now nearing retirement. Secondly a sizeable proportion of nursing professionals live outside the NT. This group is older than average. Third, while the rate of turnover is still high, at about 35% per year, it has been steadily declining. Nevertheless there is cause for concern as both the resident and the migratory workforce are getting older which will exacerbate the shortage of nurses and midwives in the next decade.

INTRODUCTION

The first step in developing a strategy for managing turnover in the workforce is to have accurate statistics on the baseline from which the effects of management can be determined. This includes data from national statistics, workforce surveys and employment records. The independence of such data has both strengths and weaknesses. The strength comes from corroboration of trends across different data sets. The principal weakness is the difficulty in interpreting conflicting data when they have been collected by different methods. Thus, while there have long been assertions about the high rate of turnover among nurses and midwives in the NT, there is remarkably little published

evidence. The reason for this deficiency is immediately apparent on interrogation of the available data. Not having been collected with demographic analysis as its object, it tends to be patchy, dispersed, sometimes confidential and often extremely difficult to interpret. In this section we bring together such data as is available, quantify what is possible, identify trends and highlight deficiencies in data collection that could be remedied for greater understanding of trends for management.

METHODS

Data sets

The study used four main data sources to describe the movement patterns of nurses and midwives in the NT. The relationships between them are shown in Figure 2.1.

1. Nurse registration data from the Nursing and Midwifery Board of the Northern Territory (NMBNT)

While the registration data provides the most complete picture of nurses registered in the NT, only limited information was available from this data source and only for 2007. Historical data was not made available for this study. The 2007 dataset was taken from registry information at the end of September, the time when renewals are due, and for a second time in November. In September the registry includes many registrants who have already left either the NT or the workforce and are not intending to renew their registration. These registrants remain on the database until November, which is the month in which the database is likely to be most accurate.

2. Census data from the Australian Bureau of Statistics (ABS)

Census data from the 1986, 1991, 1996, 2001 and 2006 Censuses were analysed. The census data provide an overall trend of migration in and out the NT for nurses and midwives, grouped for analysis as 'nursing professionals'. Analysis was based on questions asking people to identify their usual place of residence one and five years ago and their occupation. It provides information only on those nurses and midwives who have chosen to list the NT as their usual place of residence either on census night or as having been their usual place of residence one and five years previously. It does not include those nursing professionals who visit the NT to work but whose usual place of residence is elsewhere, nor does it recognise nurses who are either not working in that profession or for whom working as a nurse is a secondary role.

3. Personnel Information and Payroll System data (PIPS) from NT Department of Corporate and Information Services (DCIS)

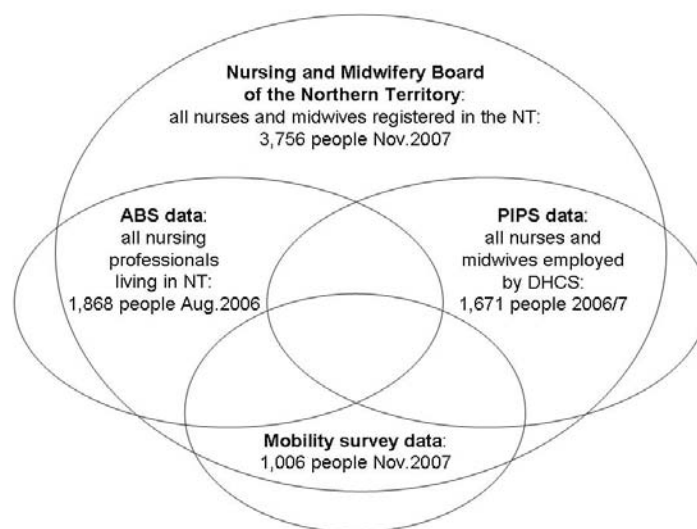
This dataset provides comprehensive information, including historical information from 1995–07, on the nurses/midwives who were employed by the De-

partment of Health and Families (DHF). It does not include data on nurses and midwives employed in the non-government sector.

4. Nurses and Midwives Mobility Survey data (N&MMS)

This survey of 1006 nurses and midwives in the NT conducted as part of the current investigation provided supplementary information on mobility in addition to the motivational analysis for which it was designed (see section 4 for details). Not all those surveyed were registered, and particularly in the web based form the survey reached some nurses and midwives who were retired or who were working in non-nursing positions).

Figure 2.1
Relationships of datasets used to understand demography
of nurses and midwives in the Northern Territory



Statistical analysis

The age composition of nurse registration data could be compared between September and November, allowing calculation of changes in age structure.

ABS data was used to calculate demographic trends in the characteristics of the NT nursing professional workforce from 1986 to 2006, including migration rates in the one or five years before each census. More detailed comparison of the demographic structure of the NT nursing professional workforce with that in the rest of the country was undertaken using the 2006 Census data.

PIPS data, the major data source for the study, was used to calculate turnover rate, stability and survival analysis. Both the number of nurses/midwives employed and the full-time equivalent (FTE; number of hours worked/number of employees) were used in the

analysis. As this data system was designed for administrative purposes rather than research, there were a number of challenges to convert this data into useful information. First, some nurses and midwives are employed by contract and in some cases appear in the system to have repeated commencement and separation dates from DHF. These nurses and midwives do not incur a repeated turnover cost or other adverse effects and so represent a statistical artefact. To address this problem, a decision was made to reconcile an earlier episode of employment with each later episode if the gap between contracts was within 30 days and if the person remained in the same work unit. Second, it was common that nurses/midwives who started a new contract or changed to a married name were allocated a new Australian Government Service number. To get an accurate turnover rate, data matching was performed using date of birth and name (first name, last name and middle name). Third, there was missing PIPS data for 14 months between January 1998 and February 1999. The data was recovered using nurses/midwives commencement and separation dates. Survival analysis was applied to calculate duration of service for nurses and midwives and a number of comparisons were made between the nurses/midwives who commenced between different periods and different age groups.

RESULTS

Workforce composition and trends

Between 3,700 and 4,700 nurses and midwives are registered in the NT at any one time (Table 2.1). The exact number varies. The November registration figures are the more accurate reflection of the number who are currently working at any one time in the year, being immediately after the annual registration period, after which additional registrants accumulate through the year but those leaving employment are not recorded. The list of registrants includes those who are registered in more than one jurisdiction, some of whom may not have worked in the NT during the current registration year.

Table 2.1
Nurses/Midwives registered with the Nursing and Midwifery Board
of the Northern Territory in 2007

	General nurse	Midwife	Psychiatric nurse	Paediatric nurse	Total
Sep-07	4,679	1,030	182	61	4,754
Nov-07	3,700	893	154	43	3,756

(Source: Nursing and Midwifery Board of the Northern Territory)

In the 2006 ABS Census, only 1,868 people living in the NT fell within the category 'nursing professionals' (Table 2.2). This is consistent with the large number of nurses and midwives registered in the NT but with a permanent residence elsewhere. ABS Census data shows a lower proportion of nursing professionals per head of population living in the NT than in Australia as a whole, NMBNT data shows a higher proportion.

Also, while the ABS data is similar to the rest of the country in terms of gender composition and place of birth, the nurses and midwives living in the NT tended to be younger (Figure 2.2) and less likely to live with family (Figure 2.3). This contrasts with the survey data, based on a sample from all registered nurses, in which it appears that the nurses and midwives working in the NT are on average older than elsewhere. The 752 nurses and midwives who answered the questions in the N&MMS about age and whose usual place of residence was the NT, had an age distribution that was statistically similar across age groups to those who reported living in the NT in the census data. However those with a usual place of residence outside the NT were significantly older (Figure 2.4).

Table 2.2
Demographic characteristics of the nursing professionals living in the Northern Territory 2006

Parameter	Northern Territory		
	Australia	Australian Bureau of Statistics	Nursing and Midwifery Board of the Northern Territory
Enumerated	200,365	1,868	3,756
No, per 100,000 population	1,009	968*	1,875**
Male	9%	11%	
Age mean (yrs)	44	42*	41
Mode (yrs)	40–49 (33%)	40–49 (29%)*	>50 (32%)*
Born in Australia	71%	73%	
Family household	85%	75%*	

statistical significance for χ^2 where cells ≥ 5 : *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

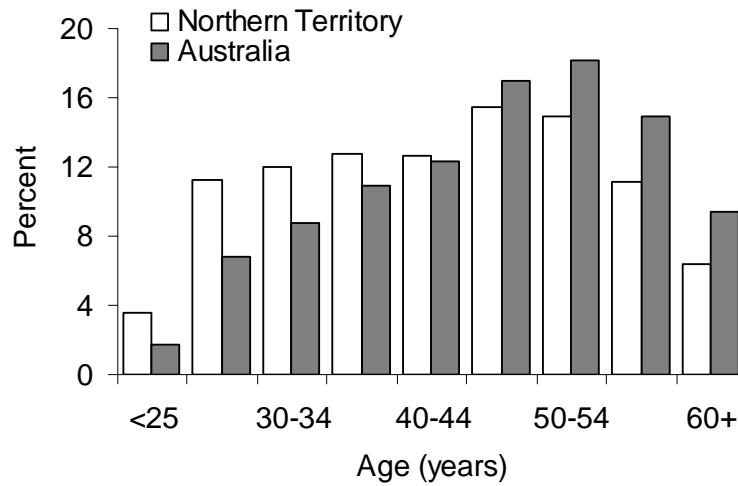
(Sources: Australian Bureau of Statistics, Nursing and Midwifery Board of the Northern Territory)

Table 2.3
Migration rates into and out of the Northern Territory 2001–2006

Rate (%)	2001–2006					2005–2006				
	Female	Male	<40 yrs	40+ yrs	Total	Female	Male	<40 yrs	40+ yrs	Total
Immigration	16.5	23.6	25.2	10.3	47.1	29.6	55.7	75.3	87.8	18.6
Emigration	16.3	20.5	23.0	11.8	39.5	33.3	40.8	59.5	84.8	17.0
Net migration	2.0	3.9	2.9	-1.7	12.5	-5.5	25.1	33.9	19.6	2.0
Turnover	32.7	43.4	47.5	22.3	81.7	64.7	86.2	112.6	156.0	35.3

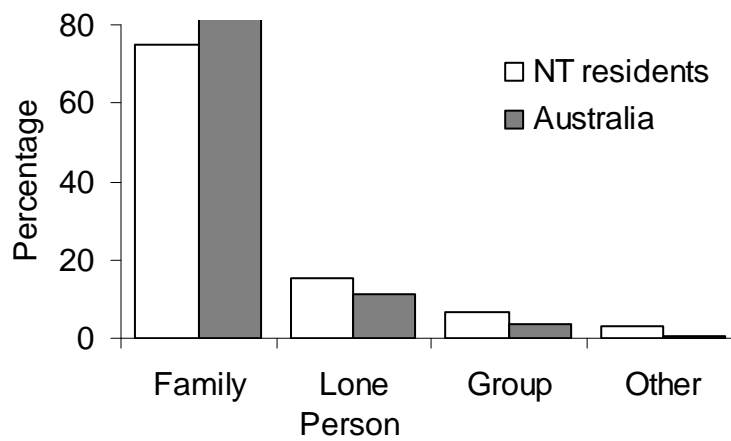
(Source: Australian Bureau of Statistics)

Figure 2.2
Age structure of nursing professionals living in the Northern Territory compared with Australia as a whole, 2006



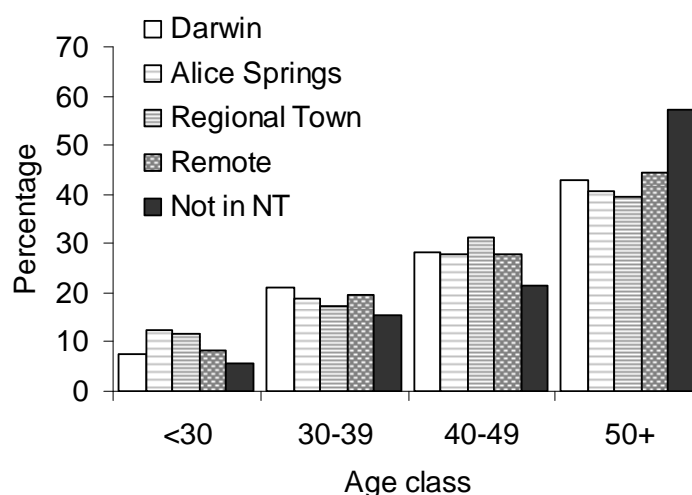
(Source: Australian Bureau of Statistics)

Figure 2.3
Family structure of nursing professionals living in the Northern Territory compared with Australia as a whole, 2006



(Source: Australian Bureau of Statistics)

Figure 2.4
Age structure of surveyed nurses and midwives working in the Northern Territory based on usual place of residence



(Source: Nurse and Midwife Mobility Survey)

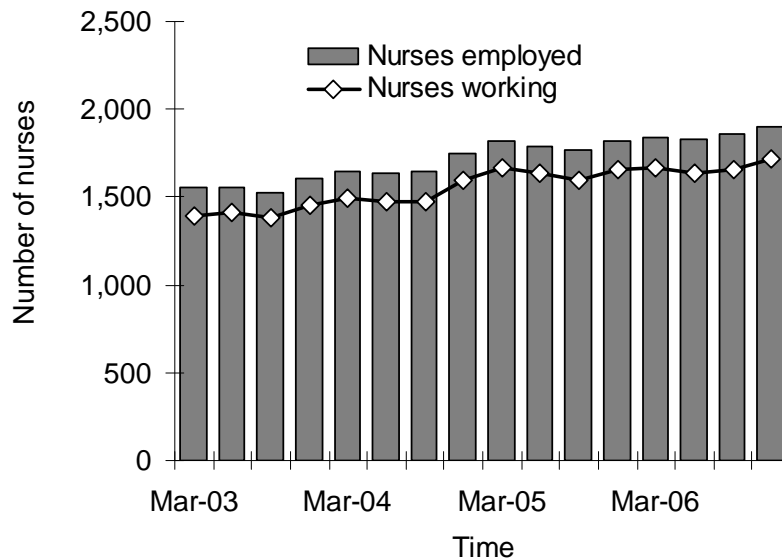
Overall there has been an increase in the numbers of nurses and midwives employed and working in DHF (Figure 2.5). Most of the increase occurred between 2003 and 2005. Before that time employment levels were fairly static. Employment appears to have plateaued briefly after 2005 but started to increase again in late 2006.

Within this trend there are distinct annual fluctuations (Figure 2.6) with a peak during the middle of the year and the trough in early January. Within the mid-year peak there is a small dip for the first fortnight of the financial year (Figure 2.7). The general trend in numbers of people employed mirrors the number of full-time equivalent employees (FTE). However the gap between FTE and employees has steadily widened, suggesting that more staff are being employed part-time. When the ratio between this gap and the number of employees is analysed periodic peaks appear (Figure 2.8), suggesting staff shortfalls are filled by employing more part-time or casual labour.

Since 2003 the trend in employment has kept pace with the number of patient separations from the hospitals, which is a blunt measure of workload (Figure 2.9). There was a period of about a year in 2005–06 when the ratio of staff to separations was lower than usual but otherwise has remained within a narrow range.

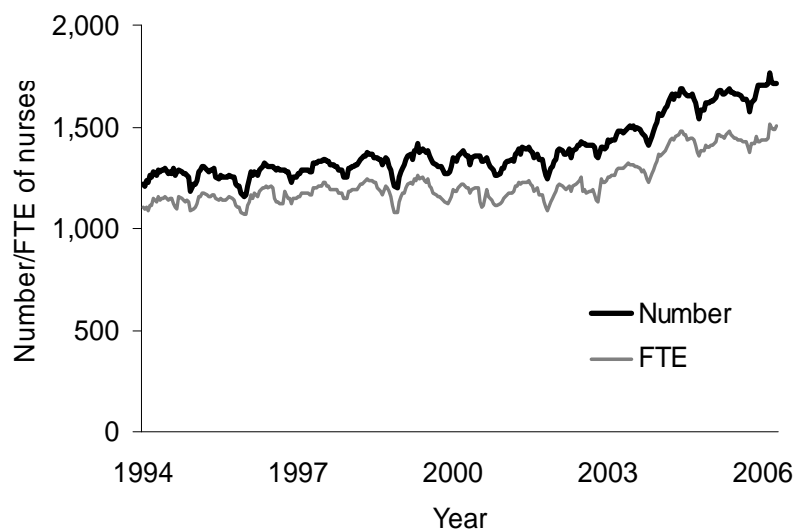
The composition of this workforce has also changed over time. While the proportion born in Australia has remained relatively constant over the past quarter century (Figure 2.10), there has been a gradual increase in the proportion of male nursing professionals from 5% to over 11% in 2006 (Figure 2.11).

Figure 2.5
Number of nurses/midwives employed by the Northern Territory Department of Health and Families and working, 2003–2006



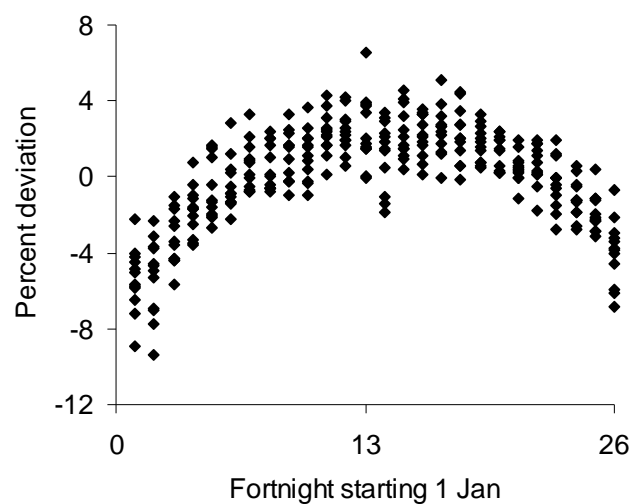
(Source: Personnel Information and Payroll System data, NT Department of Corporate and Information Services)

Figure 2.6
Trends in the total number and FTE of nurses/midwives employed by the Northern Territory Department of Health and Families, 1995–2007



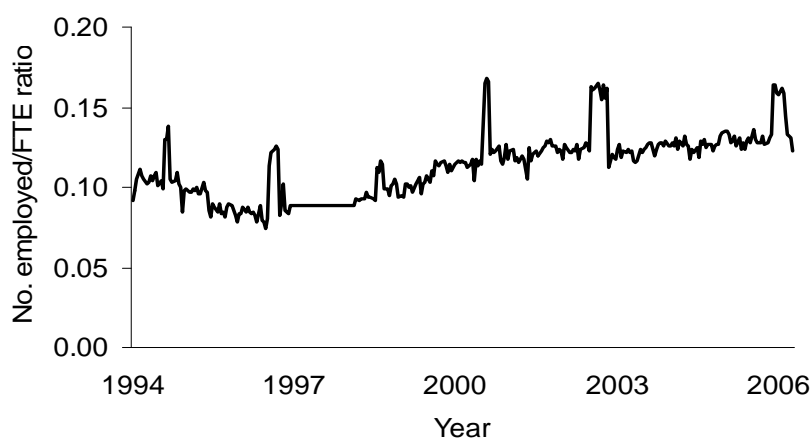
(Source: Personnel Information and Payroll System data, NT Department of Corporate and Information Services)

Figure 2.7
Annual fluctuation in number of nurses/midwives employed by the Northern Territory Department of Health and Families, 1994–2005 to 2006–2007



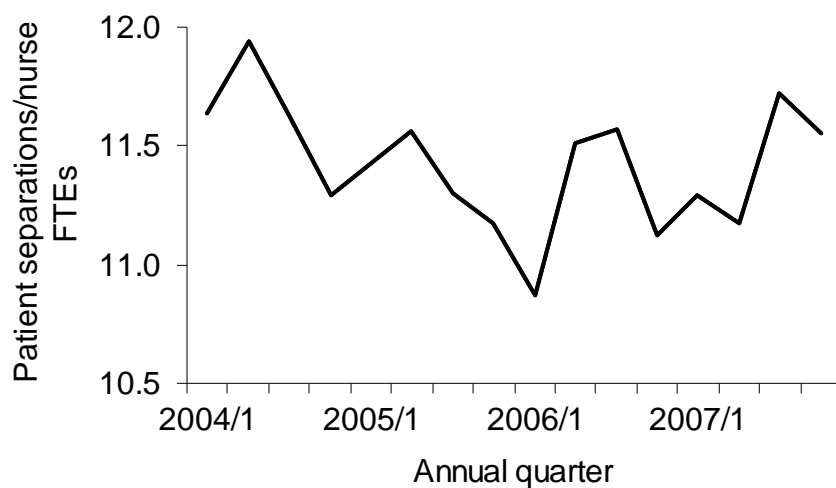
(Source: Personnel Information and Payroll System data, NT Department of Corporate and Information Services; percent deviation from running 12 month mean)

Figure 2.8
Ratio between the number of nurses/midwives employed by the Northern Territory Department of Health and Families and the number of FTE, 1994–2006



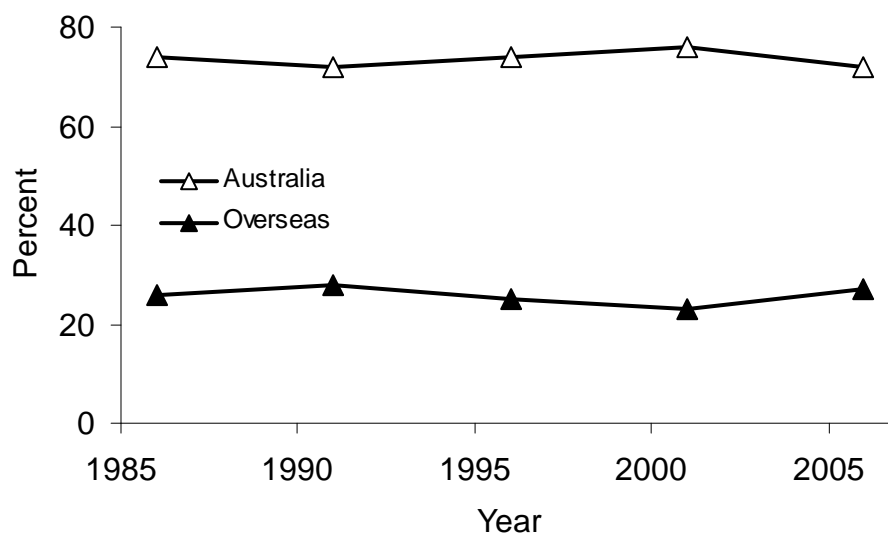
(Source: Personnel Information and Payroll System data, NT Department of Corporate and Information Services)

Figure 2.9
Proportion of hospital patient separations to FTE of nurses/midwives employed by Northern Territory Department of Health and Families hospital, 2003–2004 to 2006–2007



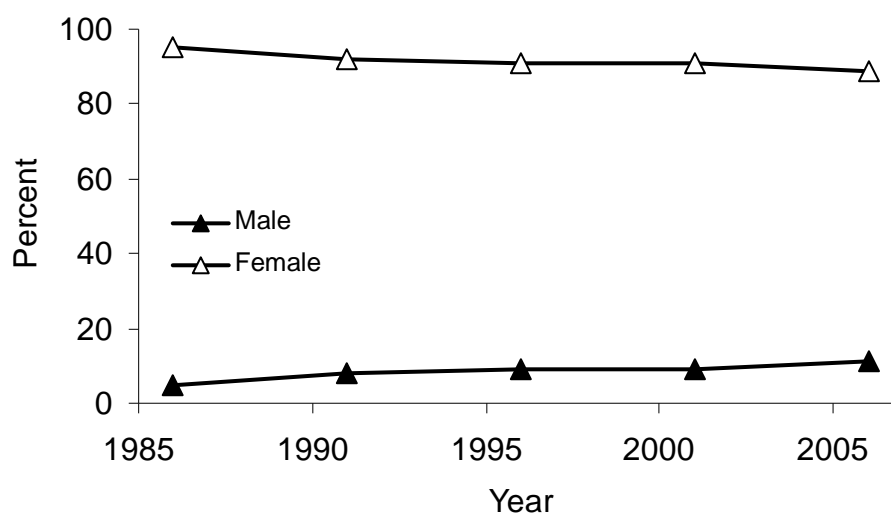
(Source: Personnel Information and Payroll System data, NT Department of Corporate and Information Services)

Figure 2.10
Trends in country of birth of nursing professionals living in the Northern Territory



(Source: Australian Bureau of Statistics)

Figure 2.11
Trends in gender in among nursing professionals living in the Northern Territory



(Source: Australian Bureau of Statistics)

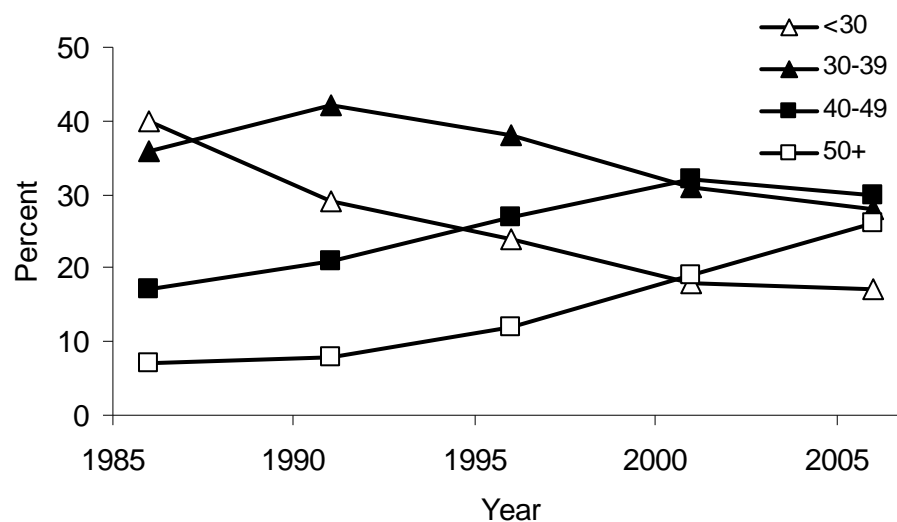
There has also been a gradual ageing of the workforce (Figure 2.12). The youngest age class has halved since 1986 Census from 40% to 20% of the total population. The proportion of the next youngest age class (30–39 years) increased in 1991 before it too declined. The two oldest age classes increased steadily from 1986 onwards but with the proportion in the 40–49 years group declining after 2001.

Some changes have been subtle. After an initial decline in the proportions of lone person households relative to family households from 1986 to 1991, the proportions then stabilised until the last census when the initial trends were reversed (Figure 2.13), although the snapshots of the different time periods show remarkably similar results given the variation in data quality.

The trends in household type are matched by trends in the proportions of nursing professionals married or never married (Figure 2.14). In this case, however, there has also been a steady increase in the proportion divorced or separated. The small proportion widowed (not shown) remained constant.

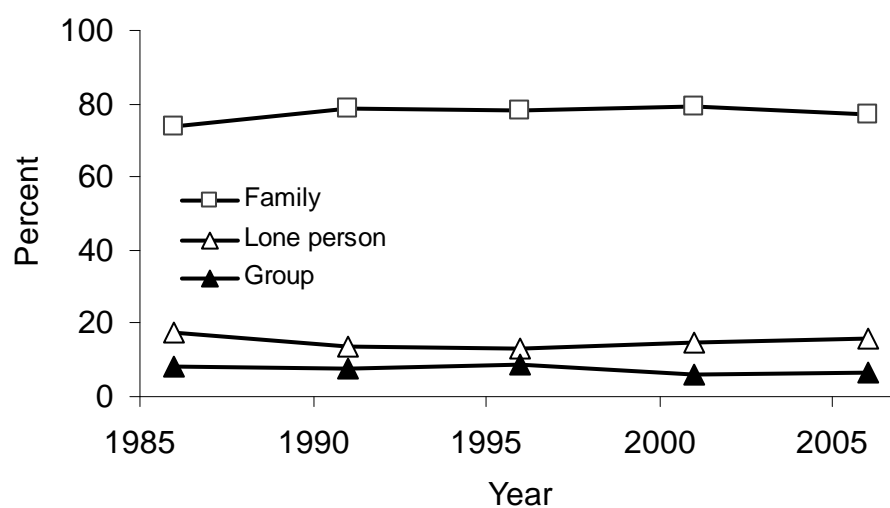
Family types also showed consistent trends. Couples with children remained steady through to 1995 then declined, a trend mirrored by the proportion without children or in single parent families (Figure 2.15).

Figure 2.12
Trends in age among nursing professionals living in the Northern Territory



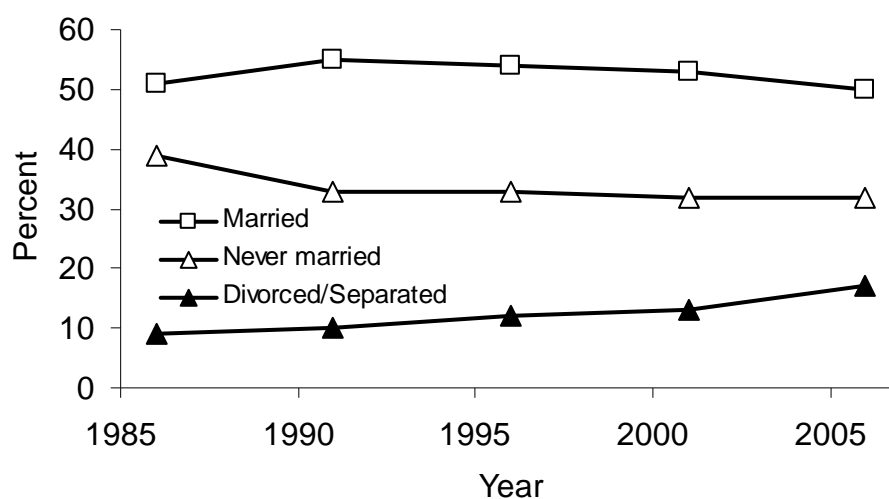
(Source: Australian Bureau of Statistics)

Figure 2.13
Trends in principal household type among nursing professionals living in the Northern Territory



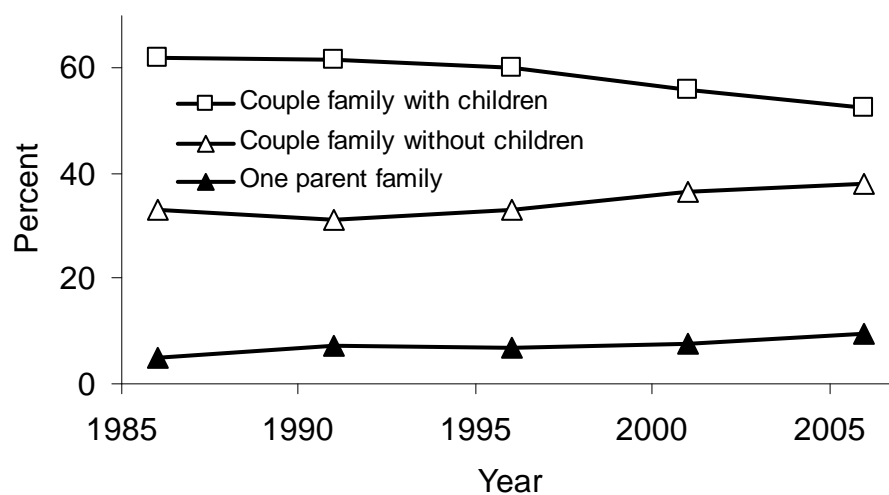
(Source: Australian Bureau of Statistics)

Figure 2.14
Trends in partner relationships among nursing professionals living in the Northern Territory



(Source: Australian Bureau of Statistics)

Figure 2.15
Trends in family types among nursing professionals living in the Northern Territory



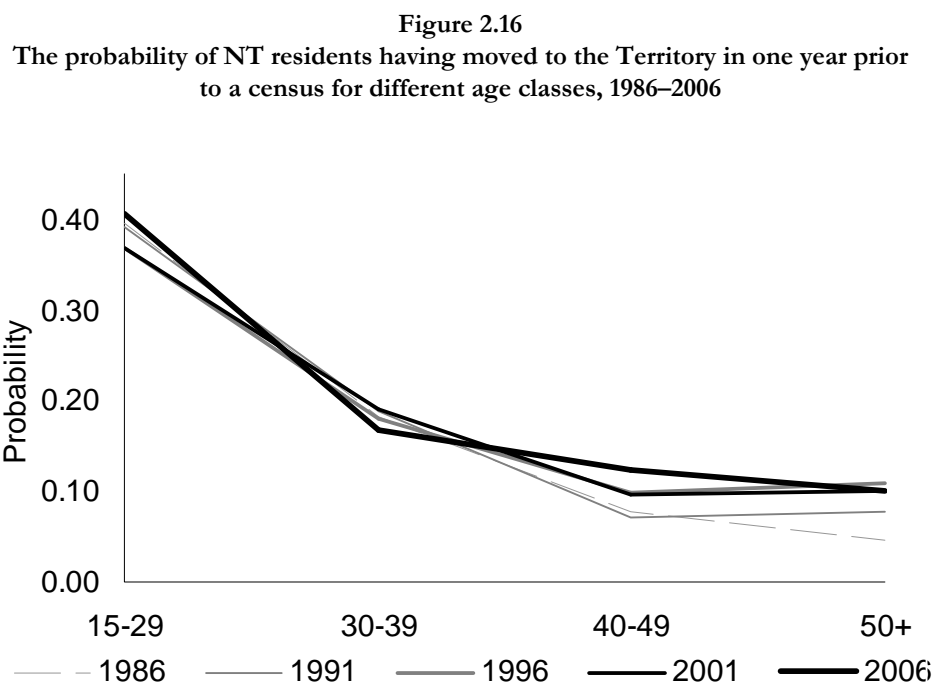
(Source: Australian Bureau of Statistics)

Interstate migration

There was a high rate of movement of nurses and midwives in and out of the NT (Table 2.3). In 2005–06 there was a 35% turnover with a slightly higher proportion of nursing professionals moving in than moving out. Over the five year period to 2006 there was turnover of over 80% of the nursing professionals living in the NT. There was a lower turnover of females than males. However, while there was a higher turnover of younger people than older people in the short term, this was reversed over the longer, five year period.

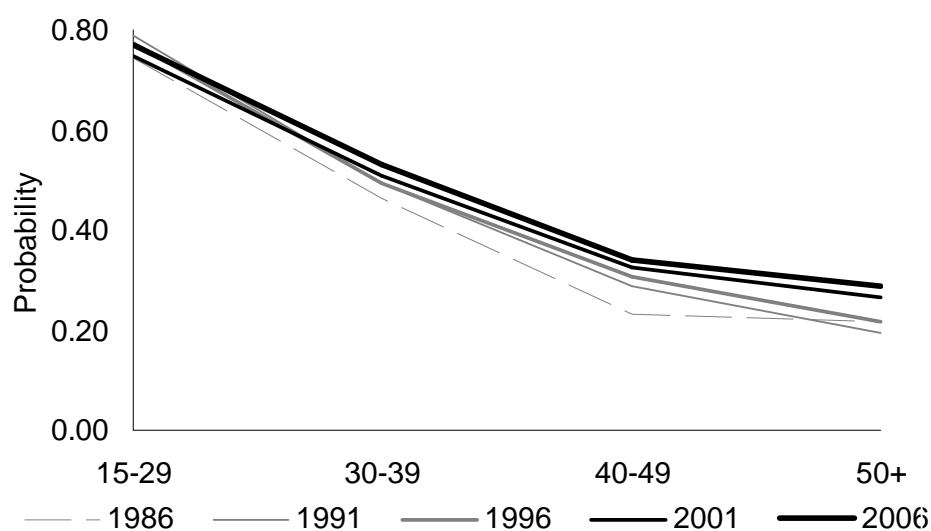
Rates of migration for different age classes have changed over time. The probability that the older age classes of nursing professionals will have lived outside the NT one year (Figure 2.16), or five years (Figure 2.17), before the census has increased with each census. However this has changed little for the younger age classes.

In contrast the probability of departure has increased markedly for all age classes of nursing professional in the last decade, whether they were living in the NT one year (Figure 2.18) or five years before (Figure 2.19) a census.



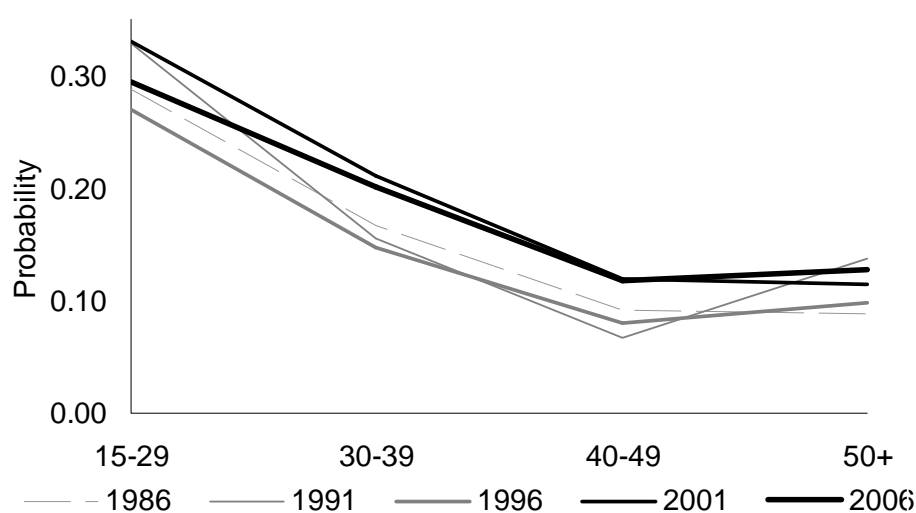
(Source: Australian Bureau of Statistics)

Figure 2.17
The probability of NT residents having moved to the Territory in the five years prior to a census for different age classes, 1986–2006



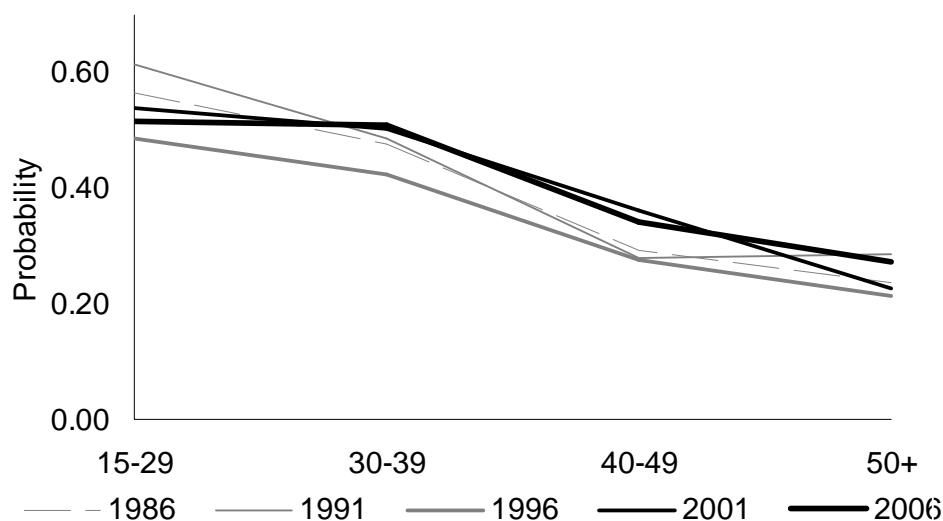
(Source: Australian Bureau of Statistics)

Figure 2.18
The probability of NT residents having left the Territory one year prior to a census for different age classes, 1986–2006



(Source: Australian Bureau of Statistics)

Figure 2.19
The probability of NT residents having left the Territory in the five years prior to a census for different age classes, 1986–2006



(Source: Australian Bureau of Statistics)

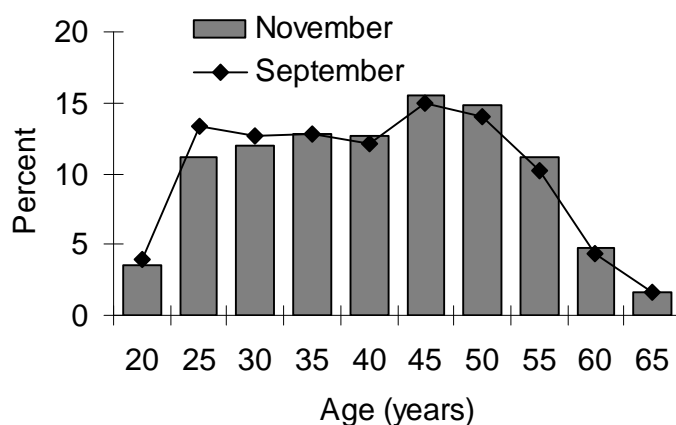
Rates of workforce turnover

Several datasets were used to examine the nature of workforce turnover within the NT. The nurse registration data shows that there was a higher proportion of young nurses in September, at the end of the annual registration year, than in the following November (Figure 2.20).

For nurses and midwives employed by the DHF, annual staff turnover from 1994 to 2002 remained between 55% and 68%. In recent years this rate has declined to nearly 40% (Figure 2.21). This trend is consistent with annual stability trends over the same period (Figure 2.22). Stability varies with the quarter, being highest in the year following the first or last quarters of a calendar year but lower for those nurses/midwives who arrive in the second or third quarters (the dry season in the Top End and winter in Central Australia). The reason for the rapid dip in stability after the first year is unknown.

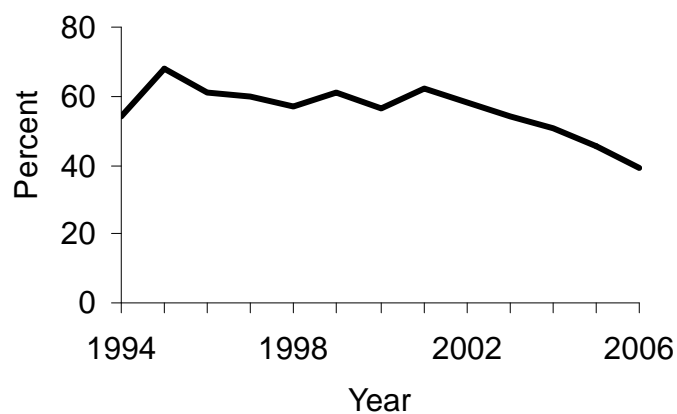
Turnover within DHF has varied with age and over time. Since 1996 the average length of stay of nurses and midwives under 40 years of age has increased, although there is a slippage after about 24 months (Figure 2.23). However those 40 years and older stayed for less time in the most recent five year period (Figure 2.24).

Figure 2.20
Age structure of the Northern Territory nurses/midwife workforce,
September and November 2007



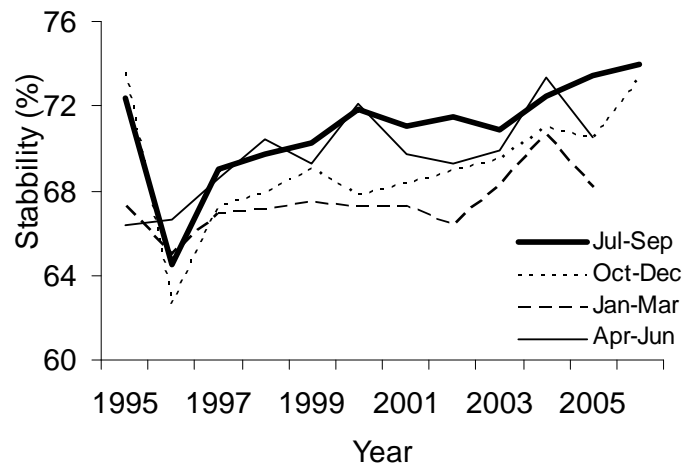
(Source: Nursing and Midwifery Board of the Northern Territory)

Figure 2.21
Turnover rate of nurses/midwives employed by the Northern Territory
Department of Health and Families, 1995–2006



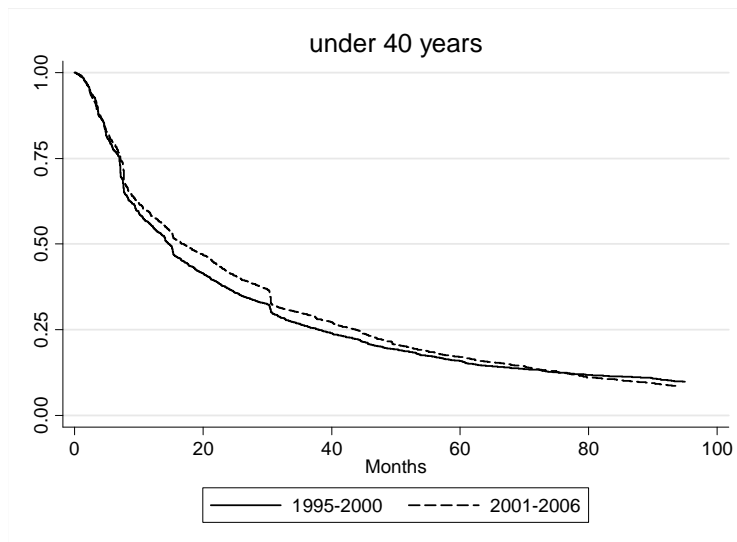
(Source: Personnel Information and Payroll System data, NT Department of Corporate and Information Services)

Figure 2.22
Stability of nurses/midwives employed by the Northern Territory
Department of Health and Families, 1995–2006



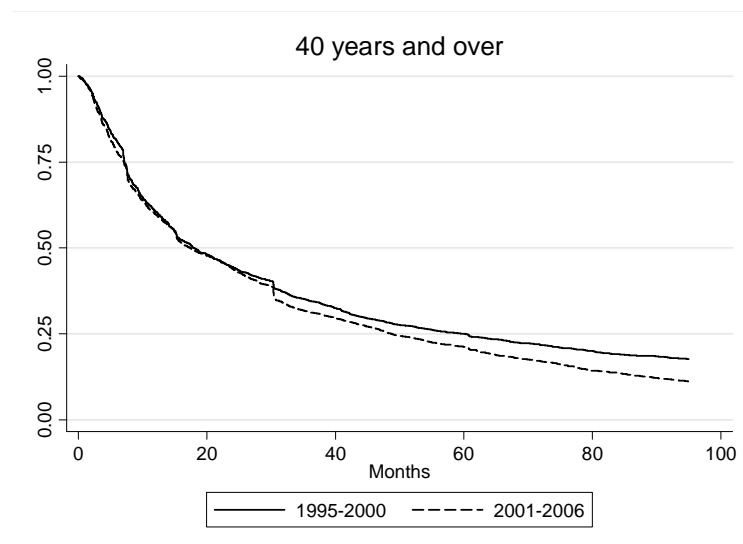
(Source: Personnel Information and Payroll System data, NT Department of Corporate and Information Services)

Figure 2.23
Duration of service for nurses and midwives <40 years old employed by the
Northern Territory Department of Health and Families, 1995–2007



(Source: Personnel Information and Payroll System data, NT Department of Corporate and Information Services)

Figure 2.24
Duration of service for nurses and midwives aged 40 years and over employed
by the Northern Territory Department of Health and Families, 1995–2007



(Source: Personnel Information and Payroll System data, NT Department of Corporate and Information Services)

Both turnover within DHF and its inverse, stability, varied greatly across the different workforce sectors (Tables 2.4 and 2.5). The two are not exact equivalents: turnover is the ratio of the number of separations from the workforce to the total workforce within a financial year, thus includes some staff who remain for less than a year. Stability measures the number of staff who remain employed in the same area from one year to the next. Thus, among the hospitals, Darwin, Gove and Katherine show relatively low levels of turnover, Alice Springs Hospital is reasonably high and Tennant Creek Hospital the highest for any sector in the workforce. However the stability of all the hospitals varies only from 64% to 75%. Thus, at Tennant Creek, nine of the 26 positions turned over an average of three times through the year while 16 nurses or midwives remained throughout the year.

In the non-remote community health sector, mental health and the centre for disease control showed the highest levels of turnover and the lowest measures of stability, but both were more favourable than remote health. Support services were generally fairly stable with low levels of turnover.

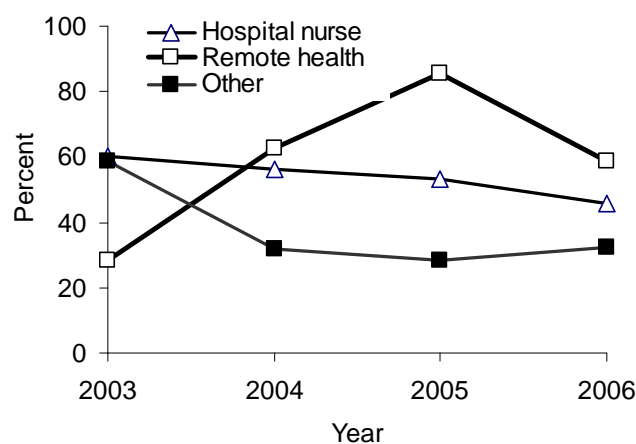
Rate of turnover within sectors has varied considerably from year to year in the short term (Figure 2.25) but there is no data that might explain this variation. Turnover rate among remote area nurses varied from about 30% to nearly 90% over a three year period from 2003–05. Other areas were more stable over the same timeframe. However, over the longer timeframe, remote area nurses and midwives employed by DHF stayed longer than those in other sectors (Figure 2.26), although it is difficult to detect reliable trends from so few data points, and it is not possible to separate trends from individual events.

Table 2.4
Turnover rate in nurses/midwives employed by the Northern Territory
Department of Health and Families, 2006–2007

Branch name	Average number of nurses	Number of separations	Turnover (%)
Hospitals			
Royal Darwin Hospital	719	243	34
Alice Springs Hospital	326	185	57
Katherine Hospital	84	27	32
Gove District Hospital	54	15	28
Tennant Creek Hospital	26	24	92
Non-remote Community Health			
Aged care and disability	7	0	0
Mental health	91	33	36
Alcohol and drug	11	3	27
Centre Disease Control	35	16	46
Health Development and Oral Health	23	3	13
Community Health Urban	118	15	13
Remote Health			
Remote Health	148	84	57
Health support services			
Acute Care Policy and Development	16	4	25
People and services	11	2	18
Information services	2	0	0
Total	1,671	654	39

(Source: Personnel Information and Payroll System data, NT Department of Corporate and Information Services)

Figure 2.25
Turnover rate for hospital, remote health and other nurses employed by the
Northern Territory Department of Health and Families, 2003–2006



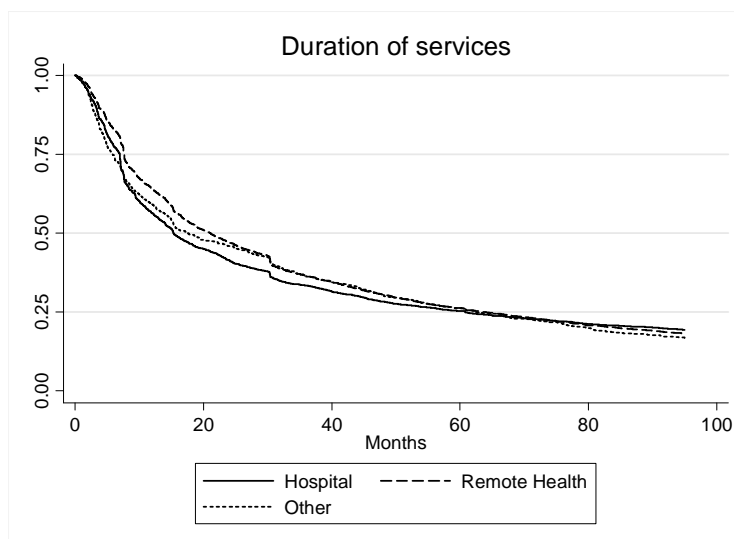
(Source: Personnel Information and Payroll System data, NT Department of Corporate and Information Services)

Table 2.5
Stability in number of nurses employed by the Northern Territory
Department of Health and Families, May 2006 to May 2007

Branch name	Number of nurses		
	May-06	May-07	Stability (%)
Hospitals			
Royal Darwin Hospital	813	611	75.2
Alice Springs Hospital	345	234	67.8
Katherine Hospital	70	51	72.9
Gove District Hospital	45	33	73.3
Tennant Creek Hospital	25	16	64.0
Non-remote Community Health			
Top End Service Network	79	70	88.6
Aged care and disability	3	3	100.0
Mental health	74	44	59.5
Alcohol and drug	6	6	100.0
Centre Disease Control	33	23	69.7
Health Development and Oral Health	13	10	76.9
Community Health Urban	99	78	78.8
Remote Health			
Remote Health	129	89	69.0
Tiwi Health Services	9	6	66.7
Health support services			
Acute Care Policy and Development	5	5	100.0
People and service	2	2	100.0
Information services	1	1	100.0
Workforce development and Human Resources	8	7	87.5
Principal nurse advisor	1	0	0.0
Other	3	3	100.0
Total	1763	1292	73.3

(Source: Personnel Information and Payroll System data, NT Department of Corporate and Information Services)

Figure 2.26
Duration of services for NT nurses/midwives by different types of nurses,
Northern Territory Department of Health and Families, 1995–2007



DISCUSSION

There are three main threads apparent in the data on demography and turnover.

The first is that there appears to be a generational change under way. Using the census data it is possible to track the careers of a group of nurses and midwives who were in their twenties when they arrived in the late 1980s, obtained partners, established families and bought houses through the 1990s, during which time some separated from their partners and became single parents. The children have left home since 2000 and now their parents are starting to retire. With more young people coming in than leaving in the five years before the census, and more old people leaving than coming, the proportion of the younger age groups should increase by the time of the next census.

Secondly there were important differences between the NMBNT data, which includes many who do not ordinarily live in the NT, and the ABS data, which includes only NT residents. One difference is that the modal age of the registration data is higher than that of the ABS data, meaning that the nurses and midwives registered in the NT but living elsewhere are significantly older than the NT residents. This difference is corroborated by the mobility survey of nurses and midwives. Thus the mobile workforce tends to be older than the resident workforce. Given the demographic analysis in the paragraph above, this is a trend that will continue – and increase. The PIPS data also suggests the DHF nursing workforce is staying longer in their jobs, although a significant proportion only to the end of two year contracts, and that young people are staying

longer. The census data, however, suggests that the immigration and emigration rate of nursing professionals into and out of the NT is increasing. There are two possible explanations for this apparent discrepancy. The first is that mobility in the private sector, which could not be analysed in our datasets, is increasing, possibly, following a national trend (De Ruyter 2004), with more private sector positions being filled by casual staff living outside the NT, even if registered with the NMBNT. The second is that the ABS census occurred on 8 August 2006 at a time when DHF had 25% more part-time employees than usual (see Figure 2.8), meaning the census may have included a more mobile population of nursing professionals than if it had been held earlier or later. The reasons for such irregularities were beyond the scope of this study but warrant further investigation.

In any case the relative decrease in turnover is coming off a high base. Thus there is an annual turnover of 35% for nursing professionals living in the NT and about 40% for DHF employees. It is also highly variable with some sectors having exceptionally high levels of turnover and others being relatively more stable. Remote health, which in one year had a turnover of over 80%, had an average duration of employment over the last decade slightly longer than the other sectors.

Comparative data from elsewhere in Australia are few. While older studies in America did suggest an annual rate of turnover greater than 40%, this declined to about 14% by the 1990s (Tai 1998). Even if available, the factors governing nurse professional mobility in the NT are likely to be different from other locations. The data assembled here, however, provide a baseline for determining trends in the future and allow interpretation of the survey data (see section 4).

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- Tai, T. W. C., Bame, S. I. & Robinson, C. D. 1998 'Review of nursing turnover research, 1977–1996', *Social Science and Medicine*, vol. 47, pp. 1905–1924.

3. MOTIVATIONS FOR STAFF MOVEMENT

SUMMARY

One group of long-staying nurses was identified along with four classes of more mobile nursing professionals. A substantial cohort of nurses, many of whom are now community nurses in Darwin, arrived in the 1980s and became embedded in the community. They are now nearing retirement having served in the NT throughout their careers. Those who stay and leave early are the young travellers, many of whom have jobs in hospitals, visiting older nurses from interstate, disappointed idealists and those whose contract simply ends without renewal. Most think the NT a great place to live. Some leave because they never intended to stay – they are travelling anyway, it is too hot or too far from the places they call home. Others might stay longer if administrative systems improved, if management was more sympathetic or it was easier to find housing.

The top ten reasons for nurses/midwives coming to work in the NT, in rank order, were:

1. Expectation of job availability
2. Opportunities for new experiences
3. Expectation of an opportunity to use a wide range of skills
4. Satisfaction with providing an important service in an area of need
5. Opportunities for professional development
6. Attraction of the NT lifestyle
7. Opportunity to work with Indigenous people
8. Attraction of the natural environment
9. Opportunity to experience Indigenous culture
10. Financial incentives (better salary/wages)

The top ten reasons for nurses/midwives staying in the NT, in rank order, were:

1. Sense of professional independence and responsibility (autonomy)
2. Clinical variety and challenge
3. NT lifestyle
4. Natural environment
5. Income
6. Sense of community
7. Contributing to Indigenous health
8. Size of city/town where living

9. Personal relationships with staff and patients
10. Opportunities for professional development

The top ten reasons nurses/midwives left the NT, in rank order, were:

1. Family and/or social networks
2. Stressful work environment (burnout)
3. Career opportunities elsewhere
4. Lack of support from management
5. The 'distance from everywhere' factor (e.g. expense/inconvenience of isolation, quality of supermarket goods)
6. Unreasonable workload
7. Further travel
8. Cost of living in the NT
9. Desire for change in lifestyle
10. Slow rate of innovation in work practices

Remote and community nurses tended to stay longer than most while hospital nurses left sooner. The following reasons for coming, staying and leaving were associated with longer stays in the NT:

- Coming: attraction of NT lifestyle; perception that the NT is a good place to raise children; provide better future for myself and family
- Staying: clinical variety and challenge; family and/or social networks; no reason to leave or move; NT lifestyle
- Leaving: burnout; desire for change in lifestyle; limited opportunity for career progression; retirement

The following reasons for coming, staying and leaving were associated with shorter stays in the NT:

- Coming: attraction of tax benefits associated with remote location; opportunities for new experiences; opportunity for a working holiday; opportunity to experience Indigenous culture
- Staying: contributing to Indigenous health; income; opportunity to work in remote locations; workplace benefits
- Leaving: climate; completed employment contract period; expectations of work experience did not match reality; problems with housing

INTRODUCTION

There is an increasing understanding that high rates of staff turnover are expensive and affect outcomes for patients (O'Brien-Pallas 2006). This is particularly true of remote Indigenous communities where turnover rates are highest with profound implications for health outcomes (Minore 2005). Thus the high rate of turnover among nursing staff has been the subject of research for decades (Tai 1998, Hayes 2006).

Typically a decline in job satisfaction leads to gradual disengagement with the progression and is associated with administration, promotional prospects, employment security and time available for clinical duties (Hayes 2006). With a few exceptions (Hegney et al. 2002), however, most studies of turnover have only looked at the working environment. Extrinsic social factors have largely been ignored except as motivators to move elsewhere, such as when there are plentiful or more satisfying jobs elsewhere (Duffield 2004).

While the work environment is the primary influence on staff retention in urban centres (Bloom 1992), extrinsic factors are increasingly important in rural, regional and remote settings, which is where staff shortages are most acute (Witham 2000). Here movement into and out of the workforce is commonly associated with movement into and out of the community itself and so is as much a matter of migration as workforce dynamics. Thus any studies of the reasons and correlates of mobility need to account for social factors outside the working environment (Hegney et al. 2002).

Understanding the reasons nurses and midwives come to work in the NT, or stay after completing their training, can help managers recruit and retain staff. However, this information alone is insufficient – it is important to understand the characteristics of those nurses or midwives who remain here for extended periods and those more likely to leave after a short stay. Similarly an understanding of the reasons nurses or midwives stay here can help provide the working conditions that will help persuade them to stay longer. Finally an understanding of the reasons people leave can lead to remediation of the most critical factors in that decision.

This section builds on the understanding of the demography of nurses and midwives to elucidate the factors that drive their mobility, or lack of it.

METHODS

Survey methods

The motivations of nurses to come to the NT, stay or leave were determined using a survey of all nurses and midwives registered in the NT. A modified Delphi technique was used to identify the motivations of nursing staff coming to, leaving or remaining in nursing and midwifery in the NT. The technique employed exploratory interviews with a diverse sample of the workforce to identify the most important issues affecting mobility. Each successive interview added fewer new issues until it was determined that most

had been considered. The importance of these issues to the wider workforce population was then tested through a survey delivered to all nurses and midwives registered in the NT. This also allowed exploration of the relationship between motivation and demographic factors such as age, place of schooling etc.

This research had two data collection phases: face-to-face interviews, and questionnaires.

A total of 111 semi-structured interviews were undertaken with nursing staff with a range of experience to identify motivations of moving or staying. Most (25) were conducted at the Royal Darwin Hospital (RDH), which was assumed would be enough to identify most major issues. Fewer interviews were completed at other centres because many of the major issues were covered by the RDH set. At each centre an effort was made to include among the interviewees a selection of overseas-qualified nurses and midwives in each category and explore with them their experience of international migration and its consequences on their subsequent experience in the NT. Interviews generally took 30 minutes to 1 hour.

In addition, two focus groups were held with members of the Royal College of Nursing Australia (RCNA) and the Australian Nursing Federation (ANF) at their monthly meeting. The participating nurses and midwives engaged in discussion and shared their experiences. The dual purpose of the focus groups was to encourage participating nurses and midwives to become engaged in the process, and help increase completion rates for the second data collection exercise, the questionnaire.

A questionnaire was developed following analysis of the interviews (as per Hall et al. 2007), emphasising the range of issues identified as being important to the nursing environment (Hayes et al. 2006). They were mailed to currently registered nurses identified through the NMBNT as well as made available through the web.

The questionnaire had three sections (see Appendix):

- Basic demographic data including, for example, age, place of birth, residence status in Australia, sex, period of residence in the NT, household structure at various times relative to migration, involvement in community groups and work and training characteristics including profession, professional training, time since qualifying, an estimate of professional turnover and indicative data related to the impact of turnover on the efficiency of service provision.
- Data on motivational factors influencing migration decisions. Within each category, factors were separated into work-related and social issues, providing a matrix of statements related to work-related and social issues. Responses to these statements were captured on a five-point Likert scale ranging from not at all important to very important.
- The questionnaire also provided space for respondents to comment on their mobility experience. These comments were analysed to supplement the quantitative data collection.

Statistical analysis

Demographic variables were investigated through cross tabulations of the total sample and select subpopulations within the sample. Chi-square tests compared the expected distribution for <1 year, 1–2 years, 3–5 years and 6+ years and the actual distribution for each variable.

The motivational variables were investigated through principal component analysis (PCA). PCA identifies inter-relationships between sets of factors and produces a set of orthogonal (unrelated) components that summarise the variation in the original data set in fewer variables. The technique is widely used in psychology, sociology, and environmental sciences. PCA with a varimax rotation was performed on each set of reasons (social and work) for the three domains of mobility: reasons to come to the NT, reasons to stay in the NT, and reasons to leave the NT. Solutions were varimax rotated and component scores were generated to establish a new set of components (variables) that are independent of each other (after rotation, components may have low levels of correlation).

Motivations for all nurses and midwives and for the four principal nursing employment sectors in the NT workforce (hospital nurses, midwives, urban community health nurses and remote area nurses) were ranked and average ranks determined for each principal component. Ranks were then weighted by the number of respondents (many of the questions on migration, in particular, had relatively low numbers of respondents). Ranks differing from the average by greater than five ranks (<10% of all ranks differing to that extent) were highlighted.

To understand the effect of motivation for coming, staying or leaving on length of stay a stepwise linear regression was performed. For all three analyses, the dependent variable was length of stay in the NT (in months), transformed to the square root. The explanatory variables were the motivations for coming, staying and leaving, the category of nurses and age. For all three analyses, the model was run first with all motivations, age and categories in a strict linear form without interaction. In a second model, a stepwise regression (both directions: deleting and adding of motivations) was run to improve the model fit and to determine which variables contributed to explaining the length of stay in the NT. The best model was found based on AIC criteria (Burnham & Anderson 2002). Corrected AIC (AICc) was used because, although the sample size (n) was large, the number of parameters (k) was also relatively large and the ratio $n/k < 40$. Once the significant variables were identified, interactions between these and the category of nurses were introduced to the model which was also optimised using stepwise linear regression with AICc criteria. This was treated as the final model and used to compare with the explanatory power of groups of motivations taken alone (socially related versus work-related), age and the category of nurses.

RESULTS

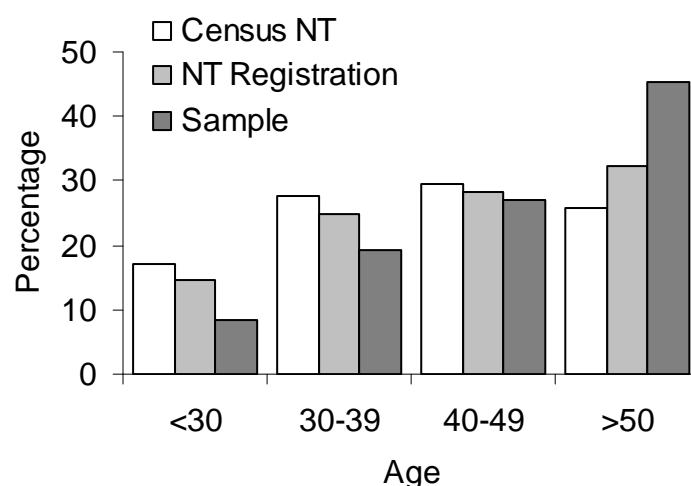
Socio-demographic characteristics

Sample characteristics were as follows. A total of 1006 people responded. Of these just 23 had always lived in the NT and 67 did not answer the question of how long they had lived in the NT. The responses of the remaining 916 were analysed to understand the relationships between mobility, motivations and time since arrival in the NT. The sample was on average older than the total registered to work in the NT, mean age 47 mode 50+ (34% total), compared to those registered mean age 42, mode 40–49 (29%) (Figure 3.1), and older still than those resident in the NT for the census in August 2006. Therefore age was included as a variable in all analyses.

Of the 159 respondents no longer working as nurses or midwives, just 28 were still resident in the NT, corroborating our assumption that nurse turnover in the NT is as much about interstate migration as workforce dynamics.

The effect of demographic variables on respondents' length of stay is shown in Table 3.1. Most variables showed little variation across length of stay. The principal trends are summarised in Table 3.2.

Figure 3.1
Age distribution of nurses and midwives responding to survey November–December 2007 compared to those registered to work in the Northern Territory in November 2007 and those resident in the NT during the 2006 census



(Sources: Nurse and Midwife Mobility Survey, Nursing and Midwifery Board of the Northern Territory, Australian Bureau of Statistics)

Table 3.1
Comparison of demography and length of stay in the Northern Territory
for surveyed nurses and midwives

Socio-demographic characteristic	Short stayers (%)			Long stayers (%) 6+ years	Total (n within category)	χ^2
	< 1 year	1–2 years	3–5 years			
<i>Length of stay</i>	11	11	21	57	916	
<i>Sex</i>						
Male	7	18	27	60	90	
Female	12	10	20	58	825	
<i>Current Residence</i>						
Darwin	6	8	18	69	423	18.7***
Alice Springs	7	9	25	60	139	
Regional Town	6	9	17	68	85	
Remote Top End	0	10	38	52	42	
Remote Centre	19	10	33	38	21	
Outside the NT	29	20	20	31	202	69.5***
<i>Place of Birth</i>						
NT	7	7	0	87	15	
Australia, elsewhere	11	10	22	58	679	
Overseas	13	14	20	53	222	
<i>Home when in high school</i>						
NT	0	0	0	100	24	***
Other state – urban	10	11	20	59	462	
Other state – rural	11	10	24	55	275	
Overseas	15	16	20	49	154	
<i>Qualifications</i>						
ACT	13	0	25	63	8	
NSW	12	11	19	58	201	
NT	0	0	4	96	45	***
Queensland	10	9	25	56	116	
SA	6	4	23	66	142	10.3**
Tasmania	5	0	57	38	21	
Victoria	15	15	19	53	200	
WA	10	24	24	42	41	
Overseas	15	16	19	51	124	
<i>Time of Qualification</i>						
Before 1970	7	15	14	64	81	
1970s	11	8	19	62	268	
1980s	9	6	15	70	226	13.3**
1990s	11	13	24	53	191	
2000s	19	19	32	31	130	33.4***
<i>Current Age</i>						
<30	20	27	36	17	75	45.9***
30–39	12	13	24	52	176	
40–49	8	6	18	68	242	11.1*
50+	11	10	18	61	411	
<i>Number of episodes in the NT</i>						
Once	14	13	22	51	493	
Twice	7	8	19	66	220	
More than twice	6	10	19	66	137	

Socio-demographic characteristic	Short stayers (%)			Long stayers (%) 6+ years	Total (n within category)	χ^2
	< 1 year	1–2 years	3–5 years			
<i>Accompanying nurse in move</i>						
Partner and children	3	9	18	71	153	13.1**
Partner	6	9	24	61	486	12.2**
Primary school children	2	9	18	71	152	8.8 [§] **
High school children	2	8	18	73	51	
Friends	16	16	13	56	32	
Alone	18	14	19	49	340	14.4***
<i>Home tenure</i>						
Renting	13	19	31	37	322	41***
Owning	1	2	14	82	450	105.8***
<i>Household</i>						
Single	18	16	24	42	187	16.6***
Couple	11	11	25	53	298	
Family	5	7	16	72	363	27.6***
<i>Involved in social/community groups</i>						
None	20	15	25	39	260	29.5***
At least one	5	9	19	67	592	22.9***
<i>Of those Involved in a group</i>						
Professional	3	7	19	70	320	27.8***
Cultural	2	6	15	77	94	21.1 [§] ***
Social	1	7	15	77	155	14.6 [§] ***
Sports	5	5	20	69	261	20.4***
Religious	9	10	18	63	143	
School	0	4	8	89	114	18.9 [§] ***
<i>Working Area</i>						
Critical	14	18	27	42	173	15**
Mixed	11	13	23	53	116	
Medical	10	19	15	55	67	
Surgical	13	15	11	60	53	
Peri-operative	16	7	23	55	44	
Midwifery	13	8	24	56	168	
Aged Care	11	14	15	60	73	
Rehab	14	18	9	59	22	
Mental Health	14	16	23	47	64	
Family	15	5	18	62	79	
Community – urban	6	11	12	71	94	8.4*
Community – remote	8	12	26	55	152	
<i>Qualified Area</i>						
Critical	13	13	26	48	253	
Mixed	10	11	20	59	327	
Medical	12	11	22	54	186	
Surgical	15	13	22	51	174	
Peri-operative	14	14	22	51	101	
Midwifery	10	8	20	62	344	
Aged Care	13	18	21	48	116	
Rehab	16	19	21	44	43	
Mental Health	13	16	20	52	97	
Family	11	11	14	65	122	
Community – urban	11	7	17	65	99	
Community – remote	4	12	22	63	137	

Socio-demographic characteristic	Short stayers (%)			Long stayers (%) 6+ years	Total (n within category)	χ^2
	< 1 year	1–2 years	3–5 years			
<i>Years Working in the NT</i>						
<1 year	89	5	2	5	104	227.3 ^{§***}
1–2 years	3	89	4	4	98	206.9 ^{§***}
3–5 years	1	2	86	12	203	39.3 ^{§***}
6+ years	0	0	1	99	488	***
<i>Employment Status</i>						
Not currently employed	24	17	19	40	148	28.3***
Casual	11	10	20	60	74	
Permanent	6	5	21	68	490	27.8***
Contract	14	20	21	45	176	14.5**
<i>Multiple contracts in last 12 months</i>	16	16	22	46	224	11.7**
<i>Time elapsed before fully confident</i>						
1 month	16	13	20	51	325	
2 months	11	13	25	51	75	
3 months	4	14	18	65	79	
3–6 months	5	6	23	66	223	14.4**
More than 6 months	2	2	27	69	55	
<i>Departure of staff – impact</i>	8	10	20	62	469	
<i>Employment benefits</i>						
Accommodation	25	20	26	29	216	63.9***
Subsidised Education	7	13	20	61	46	
Return flight to place of origin	19	15	17	49	169	11.6**
Utility services	21	20	26	33	128	30.6***
Tax incentives	8	16	24	51	180	16.5***
None	6	8	21	65	427	13.2**
Other	12	17	22	50	78	
<i>Australian Citizenship</i>	11	10	21	59	831	8.6*

Statistical significance for χ^2 where cells ≥ 5 : *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

[§]sufficient data only to compare before and after two years

Table 3.2
Principal demographic and social factors associated with length of stay in the Northern Territory

Short stayers	Long stayers
Live outside the NT	Live in Darwin
	High school in the NT
	Trained in the NT or SA
Qualified in the 2000s	Qualified in the 1980s
Under 30	40–49
Arrived alone	Arrived with partner, particularly partner and primary school children
Renting	Own their home
Live alone	Live with family
Not involved with social or community groups	Involved with professional, cultural, social, sports or school groups
In critical care nursing	In urban community nursing
Under contract, and have held multiple contracts in the previous 12 months	Permanently employed
	Took more than 6 months to feel fully confident
Benefit from employer-provided accommodation, utility services and tax incentives	Receive no employer-provided benefits
Are not Australian citizens	

Motivations for coming to the Northern Territory

A three component solution accounting for 66% of the variation was obtained for the 22 original variables investigating the work-related reasons for coming to the NT (Table 3.3). The three components can be characterised as:

- professional opportunities
- immigration imperatives
- workplace benefits

A three component solution accounting for 64% of the variation was obtained for the 19 original variables investigating the social reasons for coming to the NT (Table 3.4). The three components can be characterised as:

- lifestyle opportunities
- social networks
- family connections

Motivations to stay in the Northern Territory

A three component solution accounting for 67% of the variation was obtained for the 23 original variables investigating the work-related reasons for staying in the NT (Table 3.5). The three components can be characterised as:

- professional satisfaction
- natural and cultural environment
- immigration benefits

Motivations to leave the Northern Territory

A three component solution accounting for 63% of the variation was obtained for the 23 original variables investigating the work-related reasons for leaving the NT (Table 3.6). The three components can be characterised as:

- dissatisfaction with management
- contract completion
- disrespect for overseas-gained skills

A three component solution accounting for 60% of the variation was obtained for the 18 original variables investigating the social reasons for leaving the NT (Table 3.7). The three components can be characterised as:

- isolation and social dysfunction
- general restlessness
- retirement

Table 3.3
Varimax rotated PCA solution for work-related factors influencing the decision by
nurses/midwives to come to the Northern Territory*

Motivation	Component		
	1	2	3
Opportunities for professional development	.841	.045	.237
Satisfaction with providing an important service in an area of need	.815	.036	.199
Expectation of an opportunity to use a wide range of skills	.813	.049	.245
Opportunity to work with Indigenous people	.773	.039	.163
Prospect of career advancement	.717	.095	.257
Expectation of job availability	.715	.047	.222
Opportunity to work alongside experienced nurses and midwives	.705	.050	.399
Opportunity to work in clinics with good facilities and equipment	.627	.057	.496
Financial incentives (better salary/wages)	.616	.092	.531
Reputation as a good place to work	.609	.049	.476
Offer of NT employer-sponsored application for permanent residency in Australia	.083	.931	.015
Visa application turnover in NT quicker than in other states	.065	.920	.028
NT Government nomination for temporary or permanent residency in NT (employment not a pre-condition of migration)	.073	.917	.010
Offer of NT employer-sponsored application for temporary residency in Australia	.026	.888	.000
Prospect of permanent residency and citizenship	.057	.887	-.010
Opportunity for employment under a Working Holiday Maker visa	-.001	.785	.153
Pre-arrival information to prepare me to work as a nurse and/or midwife in the NT	.076	.730	.099
Workplace benefits (e.g. return airfare to place of origin, subsidised housing)	.342	.003	.706
Opportunity for working holiday	.191	.063	.679
Attraction of tax benefits associated with remote location	.430	.105	.656
Positive prior work experience in the NT	.262	.015	.558
Active recruitment programs offering opportunities for nurses and midwives	.456	.134	.537
Cumulative percentage variation explained by each factor (%)	27	51	66
Percentage variation explained by each factor (%)	27	24	15

* component loadings unless indicated, shaded reasons used to characterise component

Table 3.4
Varimax rotated PCA solution for social factors influencing the decision by nurses/midwives to come to the Northern Territory*

Motivation	Component		
	1	2	3
Attraction of the natural environment	.894	.092	-.021
Allure of tropics/desert	.867	.054	-.025
Attraction of the NT lifestyle	.857	.212	-.022
Climate	.810	.199	.017
Opportunities for new experiences	.785	.240	.071
Opportunity to experience indigenous culture	.763	.173	.077
Better work/life balance	.752	.384	.073
Multicultural society	.677	.354	.131
Desire to leave previous place of residence / opportunities for a new start	.634	.210	.060
Perception that the NT is a good place to raise children	.228	.759	.081
Work or career opportunities for partner	.053	.722	.078
Family and/or social networks	.298	.625	.081
Provide better future for myself and family	.080	.078	.923
Join family member(s)/partner settled in NT	.007	.144	.914
Cost of living in the NT	.581	.457	.108
Educational opportunities or facilities	.581	.482	.070
Familiarity with the NT or similar environment	.533	.453	.053
Positive NT holiday experience	.524	.366	.026
Percentage variation explained by each factor (%)	39	16	10
Cumulative percentage variation explained by each factor (%)	39	54	64

* component loadings unless indicated, shaded reasons used to characterise component

Table 3.5
Varimax rotated PCA solution for factors influencing the decision by nurses/midwives to stay in the Northern Territory*

Motivation	Component		
	1	2	3
Opportunity to work in remote locations	.815	.081	.027
Contributing to Indigenous health	.792	.274	.046
Sense of professional independence and responsibility (autonomy)	.754	.429	.065
Clinical variety and challenge	.727	.454	.047
Personal relationships with staff and patients	.726	.421	.078
Support from other nurses (incl. Associations)	.722	.375	.089
Opportunities for professional development	.706	.416	.066
Workplace benefits (e.g. return airfare to place of origin, subsidised housing)	.689	-.001	.028
Sense of community	.665	.539	.052
Income	.631	.504	.076
NT lifestyle	.369	.801	-.008
No reason to leave or move	.123	.745	.045
Climate	.380	.701	-.031
Size of city/town where living	.453	.700	.036
Family and/or social networks	.193	.698	.053
Natural Environment	.551	.601	.029
NT employment and/or residence conditions of current visa	.044	.007	.926
Prospect of permanent residency and citizenship	.011	.059	.888
Ability to support family overseas financially	.105	-.013	.882
Job security better than at home	.073	.065	.847
Ability to negotiate suitable employment contracts	.584	.375	.110
Opportunity to be involved in governance or leadership activities (e.g. representing professional bodies)	.579	.359	.016
Percentage variation explained by each factor (%)	31	22	15
Cumulative percentage variation explained by each factor (%)	31	53	67

* component loadings unless indicated, shaded reasons used to characterise component

Table 3.6
Varimax rotated PCA solution for work-related factors influencing the decision
by nurses/midwives to leave the Northern Territory*

Motivation	Component		
	1	2	3
Lack of support from management	.865	.164	.017
Slow rate of innovation in work practices	.865	.109	.058
Skills not appreciated/valued	.863	.090	.084
Not given time to take advantage of professional development opportunities	.835	.217	.002
Stressful work environment (burnout)	.823	.154	.081
Unreasonable workload	.816	.194	.070
Limited opportunity for professional development	.804	.216	.046
Lack of flexibility in working hours/ leave	.767	.244	.047
Limited opportunity for career progression	.725	.271	.084
Expectations of work experience did not match reality	.706	.206	.012
Safety issues in work environment	.678	.346	.146
High administrative load (incl. recruitment and training)	.629	.342	.045
Nurse/ doctor relationships	.613	.336	-.025
Completed employment contract period	-.089	.793	.070
Overseas-qualified nurses and/or midwives treated with reserve by management and colleagues	.065	.064	.953
Overseas-gained skills not fully appreciated and utilised	.079	.063	.929
Minimum employment contract an/or residence requirements in NT imposed by visa met	.052	.084	.881
Poor employer-provided housing	.528	.399	.138
Plans to undertake further study	.422	.401	.133
Career opportunities elsewhere	.485	.449	.124
Uncertainty about contract extension	.379	.594	.062
Difficulties with working in remote communities	.351	.592	.037
Language barrier	.433	.586	-.018
Percentage variation explained by each factor (%)	39	13	12
Cumulative percentage variation explained by each factor (%)	39	52	63

* component loadings unless indicated, shaded reasons used to characterise component

Table 3.7
Varimax rotated PCA solution for social factors influencing the decision by nurses/midwives to leave the Northern Territory*

Motivation	Component		
	1	2	3
Public antisocial behaviour	.756	.229	.302
Lack of specialist health facilities	.753	.317	.025
Problems with housing (e.g. availability, quality, costs)	.743	.229	.141
Safety issues outside the workplace	.739	.131	.392
Racist attitudes	.729	.262	.255
Cost of living in the NT	.719	.344	.160
Educational opportunities or facilities	.670	.373	-.085
Small town syndrome (e.g. poor consumer choice, limited social opportunities)	.662	.448	-.116
The 'distance from everywhere' factor (e.g. expense/inconvenience of isolation, quality of supermarket goods)	.656	.487	-.046
Desire for change in lifestyle	.297	.740	.147
Family and/or social networks	.224	.688	.082
Climate	.283	.686	.160
Further travel	.220	.605	.197
Retirement	.114	.153	.828
Unforeseen family issues (e.g. poor health, relationship issues)	.127	.486	.501
Dislike NT lifestyle	.399	.578	.158
Work or career opportunities for partner	.221	.479	.068
Limited recreational activities	.582	.538	.018
Percentage variation explained by each factor (%)	30	22	8
Cumulative percentage variation explained by each factor (%)	30	52	60

* component loadings unless indicated, shaded reasons used to characterise component

Motivational ranking for coming to the Northern Territory

The most important reasons given by nurses/midwives for moving to the NT were job availability, opportunities for new experiences, to utilise a range of skills and to serve an area of need (Table 3.8). The components of professional and lifestyle opportunities captured the highest ranking motivations. Motivations were similar across nursing sectors apart from remote area nurses being more likely to come because of opportunity to work in clinics with good facilities and equipment, work or career opportunities for their partners or a positive prior work experience in the NT.

Motivational ranking for staying in the Northern Territory

The most important reasons given by nurses/midwives for staying in the NT were the sense of professional independence and responsibility (autonomy), clinical variety and challenge, the NT lifestyle and the natural environment (Table 3.9). The components professional satisfaction and the natural and cultural environment captured the highest

ranking motivations. As with reasons for coming, the remote area nurses differed in their ranking of motivation from the remainder, being more likely to stay because of the opportunity to work in remote communities and workplace benefits. They were also the least attracted to the NT lifestyle.

Motivational ranking for leaving the Northern Territory

The most important reasons given by nurses/midwives for leaving the NT were family and/or social networks, stressful work environment (burnout), career opportunities elsewhere and a lack of support from management (Table 3.10). The component dissatisfaction with management captured the highest ranking motivations.

In contrast to the reasons for coming and the reasons for staying, which were reasonably uniform across nursing employment categories, the reasons for leaving were highly variable across sectors. Thus hospital nurses were more likely than other groups to leave because overseas-gained skills were not fully appreciated and utilised but less likely to be seeking a change in lifestyle. Midwives were less likely to leave because of an unreasonable workload, the quality of educational opportunities or facilities, lack of specialist health facilities, limited opportunity for professional development, poor appreciation of skills obtained overseas or plans to undertake further study but more likely to leave as a result of their employment contract ending, work opportunities for their partner, racist attitudes, climate, limited recreational activities, safety issues outside the workforce. For the community health nurses factors like unreasonable workload, problems with housing, lack of flexibility in working hours and a high administrative workload were all less likely to influence departure than in the other nursing sectors. Finally the remote area nurses were more likely than the other nurses to leave because of a lack of opportunity to undertake professional development, even though it appears to have been more available, small town syndrome, unforeseen family issues, a high administrative load, limited recreational facilities and difficulties in working in remote communities. They were less influenced by the cost of living, lack of specialist health facilities and public antisocial behaviour.

There were strong associations between the two principal motivations for leaving (Figure 3.2) but the R^2 value did not exceed 0.1 for any other combination of components, or between age or length of stay and the components. However the two principal reasons for leaving did not explain all departures. In particular there were many nurses and midwives who left because they had completed contracts but did not have other strong motivations (Figure 3.3). Some 8% of the 434 gave reasons for leaving as the termination of their contract and not because they were dissatisfied with management, for social reasons, were retiring or were moving on anyway.

Table 3.8
Motivations for coming to work in the Northern Territory among nurses and midwives
(ranks; cells >5 ranks from the population average highlighted)

Motivation	Type	All	Hospital	Midwives	Community health	Remote
Expectation of job availability	Work	1	1	2	1	5
Opportunities for new experiences	Social	2	2	1	2	2
Expectation of an opportunity to use a wide range of skills	Work	3	3	4	2	1
Satisfaction with providing an important service in an area of need	Work	4	4	3	4	4
Opportunities for professional development	Work	5	4	5	8	5
Attraction of the NT lifestyle	Social	6	6	9	6	11
Opportunity to work with Indigenous people	Work	7	12	6	5	3
Attraction of the natural environment	Social	8	7	7	7	8
Opportunity to experience Indigenous culture	Social	9	9	8	9	7
Financial incentives (better salary/wages)	Work	10	11	10	12	9
Better work/life balance	Social	11	8	11	11	14
Allure of tropics/desert	Social	12	10	13	10	12
Climate	Social	13	13	15	15	14
Prospect of career advancement	Work	14	15	16	18	19
Workplace benefits (e.g. return airfare to place of origin, subsidised housing)	Work	15	18	11	12	10
Desire to leave previous place of residence / opportunities for a new start	Social	16	19	21	12	17
Reputation as a good place to work	Work	17	14	17	17	22
Opportunity to work alongside experienced nurses and midwives	Work	18	16	14	16	17
Opportunity to work in clinics with good facilities and equipment	Work	19	17	18	19	13
Work or career opportunities for partner	Social	20	20	19	20	27
Multicultural society	Social	21	23	22	25	19
Active recruitment programs offering opportunities for nurses and midwives	Work	22	21	24	22	19
Positive prior work experience in the NT	Work	23	26	23	21	14
Educational opportunities or facilities	Social	24	25	19	28	24
Familiarity with the NT or similar environment	Social	25	28	27	24	25
Attraction of tax benefits associated with remote location	Work	26	27	26	26	23
Opportunity for working holiday	Work	27	21	25	23	26
Positive NT holiday experience	Social	28	24	28	29	28
Family and/or social networks	Social	29	29	29	27	29

Motivation	Type	All	Hospital	Midwives	Community health	Remote
Perception that the NT is a good place to raise children	Social	30	31	30	30	30
Provide better future for myself and family	Social	32	32	32	32	32
Join family member(s)/partner settled in NT	Work	33	33	33	33	33
Pre-arrival information to prepare me to work as a nurse and/or midwife in the NT	Social	34	34	34	34	35
Prospect of permanent residency and citizenship	Work	35	35	35	34	34
NT Government nomination for temporary or permanent residency in NT (employment not a pre-condition of migration)	Work	36	36	36	37	38
Offer of NT employer-sponsored application for permanent residency in Australia	Work	37	38	38	37	36
Offer of NT employer-sponsored application for temporary residency in Australia	Work	38	36	36	36	39
Visa application turnover in NT quicker than in other states	Work	39	39	39	39	36
Opportunity for employment under a Working Holiday Maker visa	Work	40	40	40	40	40
Components						
Professional Opportunities	Work	10	10	10	10	10
Lifestyle Opportunities	Social	11	11	12	11	12
Workplace Benefits	Work	23	22	21	20	20
Social Networks	Social	26	27	26	26	29
Family Connections	Social	33	33	33	33	33
Immigration Imperatives	Work	37	37	37	37	37
Maximum no. respondents		946	348	175	266	156

Table 3.9
Motivations for staying in the Northern Territory workforce among nurses and midwives
(ranks; cells >3ranks from the population average highlighted)

Motivation	Type	All	Hospital	Midwives	Community health	Remote
Sense of professional independence and responsibility (autonomy)	Work	1	3	1	1	1
Clinical variety and challenge	Work	2	1	2	2	4
NT lifestyle	Social	3	2	7	4	10
Natural Environment	Social	4	5	5	6	7
Income	Work	5	4	10	3	7
Sense of community	Social	6	6	4	5	5
Contributing to Indigenous health	Work	7	10	3	7	2
Size of city/town where living	Social	8	7	6	7	12
Personal relationships with staff and patients	Work	9	8	9	9	6
Opportunities for professional development	Work	10	8	7	13	9
Climate	Social	11	11	13	10	15
Family and/or social networks	Social	12	12	11	12	17
Ability to negotiate suitable employment contracts	Work	13	13	13	11	14
Support from other nurses (incl. Associations)	Work	14	14	12	14	13
Opportunity to work in remote locations	Work	15	15	15	15	3
No reason to leave or move	Social	16	16	16	16	16
Workplace benefits (e.g. return airfare to place of origin, subsidised housing)	Work	17	17	16	17	11
Opportunity to be involved in governance or leadership activities (e.g. representing professional bodies)	Work	18	18	18	18	18
Job security better than at home	Work	19	21	19	19	20
Prospect of permanent residency and citizenship	Work	20	20	20	21	22
NT employment and/or residence conditions of current visa	Work	21	19	20	22	21
Ability to support family overseas financially	Social	22	22	20	20	19
Components						
Professional satisfaction	Work	9	9	8	9	6
Natural and cultural environment	Social	9	9	10	9	13
Immigration benefits	Work	21	21	20	21	21
Maximum no. respondents		961	356	177	275	158

Table 3.10
Motivations for leaving the Northern Territory workforce among nurses and midwives
(ranks; cells >3 ranks from the population average highlighted)

Motivation	Type	All	Hospital	Midwives	Community health	Remote
Family and/or social networks	Social	1	1	1	2	4
Stressful work environment (burnout)	Work	2	4	6	3	2
Career opportunities elsewhere	Work	3	2	2	1	5
Lack of support from management	Work	4	6	8	5	1
The 'distance from everywhere' factor (e.g. expense/inconvenience of isolation, quality of supermarket goods)	Social	5	3	9	7	3
Unreasonable workload	Work	6	7	13	12	6
Further travel	Social	7	5	4	9	9
Cost of living in the NT	Social	8	9	3	7	19
Desire for change in lifestyle	Work	9	18	7	4	12
Slow rate of innovation in work practices	Work	10	12	11	6	7
Skills not appreciated/valued	Work	11	11	12	10	11
Problems with housing (e.g. availability, quality, costs)	Social	12	8	9	21	14
Educational opportunities or facilities	Social	13	10	19	16	16
Not given time to take advantage of professional development opportunities	Work	14	13	17	13	8
Completed employment contract period	Work	15	14	5	10	13
Lack of specialist health facilities	Social	16	15	26	20	25
Safety issues in work environment	Work	17	16	18	15	17
Limited opportunity for professional development	Social	18	19	24	18	26
Small town syndrome (e.g. poor consumer choice, limited social opportunities)	Social	19	20	15	14	10
Lack of flexibility in working hours/leave	Work	20	25	16	28	15
Public antisocial behaviour	Social	21	23	20	17	29
Poor employer-provided housing	Work	22	21	22	22	27
Work or career opportunities for partner	Social	23	24	14	19	23
Overseas-gained skills not fully appreciated and utilised	Work	24	17	39	25	39
Plans to undertake further study	Work	25	22	32	24	27
Racist attitudes	Social	26	30	20	31	23
Limited opportunity for career progression	Work	27	27	28	28	31
Unforeseen family issues (e.g. poor health, relationship issues)	Social	28	26	27	23	21
High administrative load (incl. recruitment and training)	Work	29	29	30	35	22
Expectations of work experience did not match reality	Work	30	28	31	33	35
Climate	Social	31	31	23	27	33
Limited recreational activities	Social	31	34	25	32	20

Motivation	Type	All	Hospital	Midwives	Community health	Remote
Nurse/ doctor relationships	Work	33	33	33	36	34
Uncertainty about contract extension	Work	34	35	35	34	30
Safety issues outside the workplace	Social	35	32	29	30	32
Difficulties with working in remote communities	Work	36	36	34	37	17
Language barrier	Work	37	39	38	39	37
Retirement	Social	38	37	36	38	36
Dislike NT lifestyle	Social	39	38	37	40	38
Minimum employment contract an/or residence requirements in NT imposed by visa met	Work	40	40	39	41	39
Overseas-qualified nurses and/or midwives treated with reserve by management and colleagues	Work	41	41	39	25	39
Components						
Dissatisfaction with management	Work	11	11	11	10	11
General restlessness	Social	26	26	23	23	25
Disrespect for overseas-gained skills	Work	28	28	31	26	31
Contract completion	Work	31	32	30	29	34
Isolation and social dysfunction	Social	31	31	30	31	27
Retirement	Social	33	33	33	36	34
Maximum no. respondents		388	156	68	107	63

Figure 3.2
Association between the two principal reasons nurses and midwives leave work in the Northern Territory

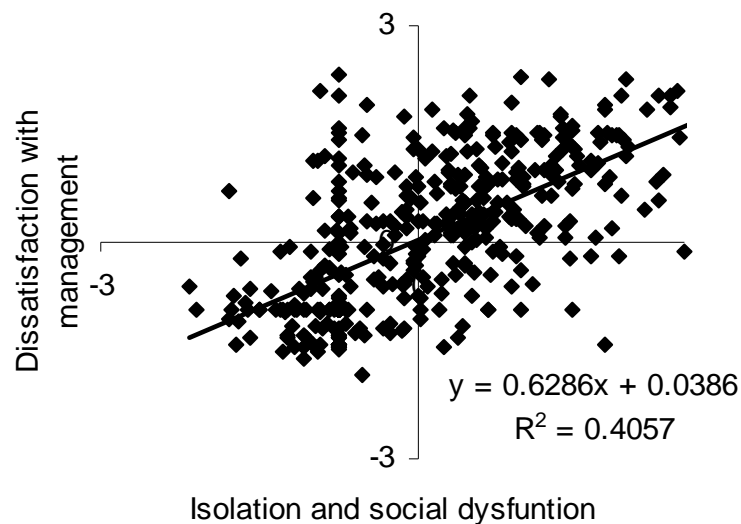


Figure 3.3
Association between the two principal reasons nurses and midwives leave work in the Northern Territory and whether they had completed contracts

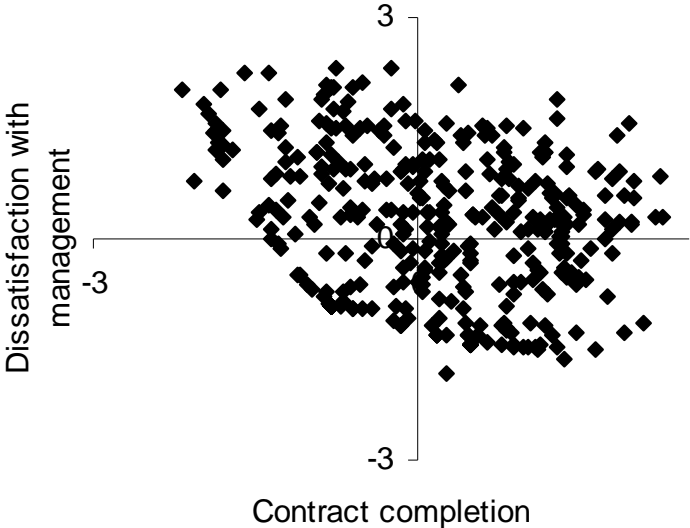
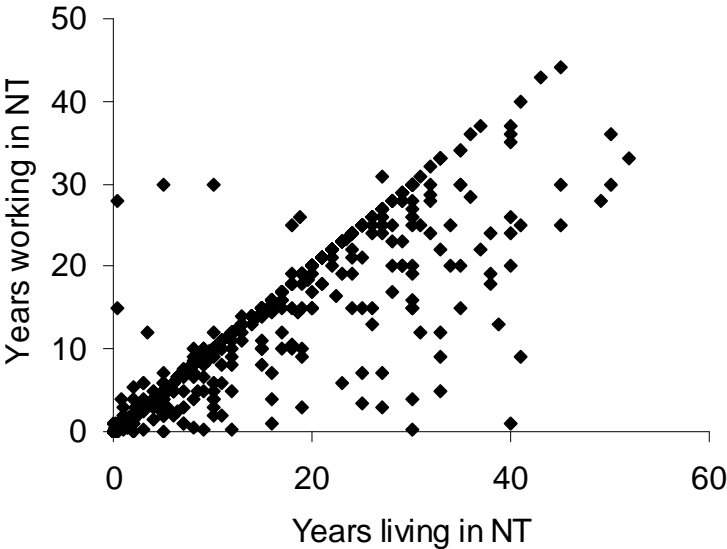


Figure 3.4
Relationship between length of stay in the Northern Territory and length of time working there



Stepwise Linear Regression

For some motivations there was a significant difference in length of stay between those for whom it was important and those who deemed it unimportant (Tables 3.11, 3.12, 3.13, 3.14). The responses also differed among the major categories of nursing work or midwifery. In each model age was highly significant, an unsurprising finding given that age is necessarily correlated with length of stay.

Reasons for coming positively associated with length of stay were primarily linked to social motivations connected to lifestyle and family, although there was a moderate level of significance for midwives who came to advance their career. Remote nurses stayed longer than other nurse types as a group and hospital nurses stayed for a shorter time, except for those who came to experience the Indigenous culture. The midwives who stayed a long time had also come for the Indigenous culture whereas this motivation was otherwise significantly associated with short-stayers. Those who were attracted to work in the NT as a working holiday, for new experiences, or because of tax incentives did not stay as long as those who came for other reasons. Midwives and remote nurses tended to leave earlier if they had come for professional development or, for midwives, if they had been attracted by the natural environment. Finally, even after age is considered, older community nurses tended not to stay as long as younger ones.

Connections to family, a love of the NT lifestyle and a lack of motivation to stay or move was associated with longer stayers, with remote and community nurses staying significantly longer than other groups, for the latter group the presence of family was particularly important. The only work-related motivation given by respondents who stayed a long time was the clinical variety and challenge offered by the NT. However, for hospital nurses this had the opposite effect on length of stay. In fact almost all the motivations associated with shorter stays were work-related. Overall nursing professionals were not staying for workplace benefits, this being particularly true for remote nurses. They were also least likely to stay for family or social reasons. Income was not associated with length of stay and those who stayed because they felt they were contributing to Indigenous health, or wanted to work in remote locations, also stayed for a shorter time.

The reasons for leaving are a little more difficult to interpret. That those leaving because they were retiring had stayed longer than those leaving for other reasons is logical, as was the response of the community nurses, who were significantly more tolerant of the climate than other nursing professionals. More surprising is that those who left because they were burnt out, felt they had limited opportunities to progress their career or simply wanted a change in lifestyle outlasted those for whom these motivations were not considered important. Remote nurses had the fewest problems with housing, midwives and community nurses who felt their skills were undervalued nevertheless stayed longer than those who left for other reasons and midwives who had left because they had completed the employment contract stayed longer than those who had already left. By far the most significant reason associated with short stays was completion of contract. Climate and the disparity between expectations and reality were associated with short stays, as was being a hospital nurse. Problems with housing were also a problem, par-

ticularly for community nurses. Older community nurses also tended to stay for a shorter time than their younger colleagues. Remote nurses who felt they had limited opportunities for career progression also tended to leave sooner.

Age, social motivations or work-related motivations had no explanatory power when removed from the models in comparison to the best fit models described in the tables, indicating that all three are important for explaining length of stay.

From the full dataset with 969 observations, 33 were omitted because values for age were missing while others were omitted for missing answers to motivations. From the remaining 936 respondents, only 324 have left the NT so far, hence the dataset for motivations for leaving only includes 324 observations.

The analysis was done with the length of stay in the NT which does not mean respondents have necessarily worked the entire time (Figure 3.4). However, a separate analysis for the length of working months showed only minor differences and the mean of 'months working' ($105 \pm \text{SD}109$) was only a little shorter than the mean for 'months staying' (122 ± 128).

Table 3.11
Goodness of fit of best fit model to explain influence of motivation for
coming on length of time working in the Northern Territory

Driver	Estimate	Std error	t value	Pr(> t)	Significance (P<)
(Intercept)	4.16677	0.98103	4.247	0.000	0.001
Reasons positively associated with length of stay					
<i>Single motivations</i>					
Age	0.18121	0.01945	9.316	0	0.001
Perception that the NT is a good place to raise children	2.27718	0.41054	5.547	0	0.001
Provide better future for myself and family	1.38306	0.44448	3.112	0.002	0.01
Attraction of NT lifestyle	1.35309	0.4281	3.161	0.003	0.01
Remote	4.13842	2.35254	1.759	0.079	0.1
Community	2.58755	1.94305	1.332	0.183	
Midwives	1.11314	0.90052	1.236	0.217	
Prospect of career advancement	0.5237	0.42414	1.235	0.217	
<i>Interactions</i>					
Midwives x Opportunities for career advancement	2.10921	0.93268	2.261	0.024	0.05
Midwives x Opportunity to experience indigenous culture	1.8416	0.9415	1.956	0.051	0.1
Hospital x Opportunity to experience indigenous culture	1.20608	0.67469	1.788	0.074	0.1
Community x Provide better future for myself and family	1.28955	0.7863	1.64	0.101	
Community x Opportunities for professional development	1.14098	0.75085	1.52	0.129	
Reasons negatively associated with length of stay					
Opportunity for a working holiday	-1.4312	0.41348	-3.461	0	0.001
Opportunity to experience Indigenous culture	-2.64523	0.51884	-5.098	0	0.001
Hospital	-1.7282	0.51217	-3.374	0	0.001
Attraction of tax benefits associated with remote location	-1.19358	0.3636	-3.283	0.001	0.01
Opportunities for new experiences	-1.13293	0.45257	-2.503	0.012	0.05
Attraction of the natural environment	-0.68244	0.4688	-1.456	0.146	
Opportunities for professional development	-0.26467	0.53281	-0.497	0.619	
<i>Interactions</i>					
Midwives x Opportunities for professional development	-2.52714	1.00518	-2.514	0.012	0.05
Remote x Opportunities for professional development	-2.28455	0.97732	-2.338	0.020	0.05
Midwives x Attraction of the natural environment	-2.0388	0.9178	-2.221	0.027	0.05
Community x Age	-0.06793	0.03545	-1.916	0.056	0.1
Community x Opportunity for working holiday	-1.20813	0.75577	-1.599	0.110	
Remote x Age	-0.06433	0.04277	-1.504	0.133	

Residual standard error: 4.759 on 887 degrees of freedom, Multiple R-squared: 0.3071, Adjusted R-squared: 0.2868, F-statistic: 15.12 on 26 and 887 DF, p-value: $< 2.2e^{-16}$, N=914, RSS = 20091.46, K = 27, AICc = 2880.17

Table 3.12
Goodness of fit of best fit model to explain influence of motivation for
staying on length of time working in the Northern Territory

Driver	Estimate	Std error	t value	Pr(> t)	Significance (P<)
(Intercept)	-1.1057	0.9601	-1.152	0.250	
Reasons positively associated with length of stay					
Age	0.19069	0.01759	10.842	0	0.001
Family and/or social networks	2.71887	0.42868	6.342	0	0.001
No reason to leave or move	1.69325	0.35440	4.778	0	0.001
NT lifestyle	1.88060	0.40938	4.594	0	0.001
Remote	1.95015	0.70918	2.750	0.006	0.01
Clinical variety and challenge	1.11411	0.50785	2.194	0.029	0.05
Community	3.72478	1.83346	2.032	0.042	0.05
<i>Interactions</i>					
Community x Family and/or social networks	1.56717	0.70765	2.215	0.027	0.05
Reasons negatively associated with length of stay					
Contributing to Indigenous health	-1.31782	0.43405	-3.036	0.002	0.01
Income	-0.92455	0.39489	-2.341	0.019	0.05
Opportunity to work in remote locations	-0.85207	0.41499	-2.053	0.040	0.05
Workplace benefits	-0.31584	0.39770	-0.794	0.427	
Hospital	-0.29617	0.59239	-0.500	0.617	
<i>Interactions</i>					
Remote x Workplace benefits	-2.73076	0.86160	-3.169	0.002	0.01
Community x Age	-0.09359	0.03481	-2.689	0.007	0.01
Remote x Family and/or social networks	-1.72019	0.87371	-1.969	0.049	0.05
Hospital x Clinical variety and challenge	-1.24195	0.70880	-1.752	0.080	0.1

Residual standard error: 4.784 on 917 degrees of freedom; Multiple R-squared: 0.3076; Adjusted R-squared: 0.2948; F-statistic: 23.97 on 17 and 917 DF, p-value: $< 2.2e^{-16}$, N = 935, RSS = 20988.53, K = 18, AICc = 2945.70

Table 3.13
Goodness of fit of best fit model to explain influence of motivation for
leaving on length of time working in the Northern Territory

Driver	Estimate	Std error	t value	Pr(> t)	Significance (P<)
(Intercept)	2.67475	1.38145	1.936	0.054	
Reasons positively associated with length of stay					
<i>Single motivations</i>					
Age	0.13609	0.02568	5.299	0.000	0.001
Retirement	3.28634	0.85119	3.861	0.000	0.001
Limited opportunity for career progression	2.07513	0.66519	3.120	0.002	0.01
Burnout	1.77012	0.60375	2.932	0.004	0.01
Desire for change in lifestyle	1.24879	0.52679	2.371	0.018	0.01
Community	5.20844	2.45085	2.125	0.034	0.05
<i>Interactions</i>					
Community x Skills not appreciated/valued	4.88275	1.44120	3.388	0.001	0.001
Midwives x Skills not appreciated/valued	4.26356	1.63650	2.605	0.010	0.05
Remote x Problems with housing	2.94854	1.33818	2.203	0.028	0.05
Community x Climate	2.60810	1.25104	2.085	0.038	0.05
Midwives x Completed employment contract period	3.67863	2.17658	1.690	0.092	0.1
Hospital x Problems with housing	1.57493	1.00996	1.559	0.120	
Reasons negatively associated with length of stay					
Completed employment contract period	-3.55352	0.49514	-7.177	0.000	0.001
Climate	-1.91243	0.68049	-2.810	0.005	0.01
Hospital	-1.61531	0.60387	-2.675	0.008	0.01
Expectations of work experience did not match reality	-1.74887	0.71505	-2.446	0.015	0.05
Problems with housing	-1.47855	0.80935	-1.827	0.069	0.1
Remote	-0.79670	0.86669	-0.919	0.359	
Skills not appreciated/valued	-0.42800	0.71773	-0.596	0.551	
<i>Interactions</i>					
Community x Problems with housing	-3.92761	1.31423	-2.989	0.003	0.01
Community x Age	-0.14297	0.04812	-2.971	0.003	0.01
Remote x Limited opportunity for career progression	-3.03856	1.60853	-1.889	0.060	0.1
Midwives x Burnout	-2.51126	1.57618	-1.593	0.112	
Community x Expectations of work experience did not match reality	-2.46006	1.64909	-1.492	0.137	

Residual standard error: 4.237 on 307 degrees of freedom; Multiple R-squared: 0.3771; Adjusted R-squared: 0.3446; F-statistic: 11.62 on 16 and 307 DF, p-value: $< 2.2e^{-16}$, N = 324, RSS = 4955.522, K = 26, AICc = 940.44

Table 3.14
The influence of motivation for coming, staying in or leaving the Northern Territory
on length of stay*

Motivations	Employment category				
	All	Hospital	Midwives	Remote	Community
Overall		brief		longer	longer
Age	longer				brief
<i>Coming</i>					
Attraction of NT lifestyle	longer				
Perception that the NT is a good place to raise children	longer				
Provide better future for myself and family	longer				
Attraction of tax benefits associated with remote location	brief				
Opportunities for new experiences	brief				
Opportunity for a working holiday	brief				
Opportunity to experience Indigenous culture	brief	longer	longer		
Attraction of the natural environment			brief		
Opportunities for professional development			brief	brief	
Prospect of career advancement				longer	
<i>Staying</i>					
Clinical variety and challenge	longer	brief			
Family and/or social networks	longer			brief	longer
No reason to leave or move	longer				
NT lifestyle	longer				
Contributing to Indigenous health	brief				
Income	brief				
Opportunity to work in remote locations	brief				
Workplace benefits	brief			brief	
<i>Leaving</i>					
Burnout	longer				
Desire for change in lifestyle	longer				
Limited opportunity for career progression	longer			brief	
Retirement	longer				
Skills not appreciated/valued			longer		longer
Climate	brief				longer
Completed employment contract period	brief		longer		
Expectations of work experience did not match reality	brief				
Problems with housing	brief				
Problems with housing				longer	brief

* where there are interactions, the trend for the work category is occurring despite or in addition to the overall trend; some motivations affected only some work categories

DISCUSSION

The demographic and motivational analysis identified several cohorts of nurses and midwives who have stayed for extended periods and others who have had, or are likely to have, less commitment to working in the NT.

One group of long-stayers were identified in section 3. This group can be characterised as having come to the NT in the 1980s and are now retiring or nearing retirement. This may be a statistical anomaly, as only those staying a long time will have had the opportunity to go through the various life stages illustrated in the statistics, but the proportions in each sector suggest this group has a larger share of the workforce than might be predicted from chance alone. Most are deeply embedded in society, many being permanently employed hospital or urban community health nurses based in Darwin. Another relatively small group of long-stayers have existing connections in the NT or have been to the NT before, enjoyed the experience and returned.

There appear to be four main groups of short-stayers. One group are travelling young people who come for new experiences and adventure. Most work at the hospital. Not many in this group answered the questionnaire and many were probably missed because the survey was held at the end of the dry season when many mobile workers leave. A second group are older and live outside the NT, coming to work for relatively short periods. A third group, across all age classes, are those who come to the NT with high hopes of a satisfying professional experience but are disappointed and leave, probably earlier than they might otherwise have done. Policies that keep some of this group and translate them into replacements of the 1980s cohort are required for the long-term sustainability of the NT nursing and midwife workforce. The fourth group is an even easier group to accommodate, and are those who leave simply because their contract ends. Administrative systems that make contract extension flexible in a timely manner will also have a positive impact on retention.

The variation among motivations among different types of nursing professional provides some guidance of where to target intervention. All types usually come here because it combines their wish to help people, which is probably a major motivation for nurses taking up their profession in the first place, with an opportunity to have new experiences. For remote area nurses in particular the opportunity to work with Indigenous people is important whereas the NT lifestyle had fewer attractions, but otherwise the top ten motivations are remarkably similar – the NT is seen as a place of professional opportunity with a high quality lifestyle.

A similar pattern emerges from the motivations for nurses and midwives staying in the NT. Professional satisfaction from the clinical variety and challenge and their autonomy are the main drivers across the board, although here the contrast between hospital and remote area nurses in particular begins to be apparent. Remote area nurses and, to a lesser extent, midwives, are far less attracted by the NT lifestyle but do see their contribution to Indigenous health as being important reason for staying. For hospital nurses and, to some extent, the older urban community nurses, the reverse is true.

Yet the relative isolation from family comes up as the principal reason for leaving among nearly all groups, along with career opportunities elsewhere. The adventure is over and it is time to go home. These enticements to move are reinforced by a perceived lack of support from management and the stress of the work environment. The mix of push and pull is almost impossible to tease apart, but the net result is the same and people leave: more than 90% of those leaving because of management issues also left because of isolation and social dysfunction and less than 3% affected by the latter were not also dissatisfied with management. Yet, as pointed out, this is not the case for all those departing. About 18% of all those leaving because their contracts had ended were not driven by any other reason – they had negative motivation scores for all other components associated with leaving.

Despite the relatively high retention rates among nurses and midwives in some of the hospitals, particularly Royal Darwin, hospital nurses are relatively transitory compared to those serving as midwives, remote or community nurses. In contrast the community nurses have generally stayed a long time and are thoroughly embedded in the community. This may be tautological however – people staying a long time eventually become community nurses.

Taking these trends, and age, into account, the NT comes over as a great place to live for nurses and midwives, particularly for a working holiday, though some cannot stand the heat. Some like it so much they stay for much of their career, and many put in the long hours and get completely burnt out before they leave. But the idealism that brings some nursing professionals to the NT soon wears off, as do tax incentives and other monetary rewards, and when there are also problems with housing and the contract is not automatically renewed, many move on.

The results are entirely consistent with the data from the literature on nurse mobility. Many have found significant correlations between intent to leave the workplace and dissatisfaction with pay and working conditions (Barron et al. 2007, Lum et al. 1998, Robinson et al. 2005) with management responding by examining level of organizational commitment (Lum et al. 1998), hospital attractiveness (Stordeur 2007) and salary supplements (Shields et al. 2001). Nurses and midwives give many reasons for wanting to stop work (Pelletier et al. 2005, Gaynor et al. 2006). In an Australian study on nurse retention, job satisfaction was found to rank highly as a motivation for changing jobs or leaving the workforce (Pelletier et al. 2005). Australian studies on causes of low levels of job satisfaction revealed that nurses feel undervalued (Jones & Cheek 2003), are exposed to workplace violence (Jackson et al. 2002) and poor management practices (Hegney et al. 2002), and feel obliged to work unreasonable hours (Patrick 2006). All over Australia nurses/midwives experience high levels of emotional exhaustion and depersonalisation, making them vulnerable to 'burnout' (Spooner-Lane 2007, Patrick 2006). The difference in the NT is burnt out nurses leave – elsewhere they can get a different job nearby.

Given that nurses are more likely to leave due to poor management practices (Hegney et al. 2002), there are a range of strategies that can be adopted within the workplace for better retention. For instance hospital nurses are less likely to leave an organization voluntarily if they feel committed to it (Lum et al. 1998). Previous studies showed that

commitment in hospital nurses depends on how innovative and supportive they perceive their wards to be (Lok & Crawford 1999). Recruitment and retention can also be improved through locally applicable strategies, using senior nurses to develop a range of different approaches to recruit appropriate staff (Gould 2006).

However workplace and social issues are intertwined in ways that are difficult for the workplace alone to manage, particularly in regional and remote communities. Although most studies on the retention of nurses/midwives focuses on causes of dissatisfaction in the workplace, research conducted overseas and in Australia has shown that job satisfaction should not be considered in isolation from environmental and social factors (MacIsaac et al. 2000). In this study models that failed to include both social and work-related motivations had almost no explanatory power for length of stay compared to models that included both.

The key to retention is embeddedness in the community, not just at work (Maertz et al. 2004), but this is difficult when the community in which the embedding is taking place is itself mobile so that few who come to the NT already have connections here. In the study reported here just 29 of the 158 who had left the workforce and answered the survey were still living in the NT.

Despite the apparent intransigence of mobility in the nursing workforce, a group of nurses and midwives did come to the NT in the 1980s, settle, raise families and stay through to retirement. The key to reducing the high rate of turnover will be to entice new cohorts to stay and do the same. And the obvious target group are those whose contracts end, and who leave for no other reason. But to stay they will also need high quality management. If there is one message that comes through both this survey and the literature it is that nurses and midwives, many of whom live and work in conditions few would tolerate because of a deep need to provide care for their patients, need some of the same appreciation they give to others.

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4. OVERSEAS-QUALIFIED NURSES AND MIDWIVES

SUMMARY

About 23% of surveyed nurses and midwives come from overseas, and 13% have qualified overseas. Most come from New Zealand or the UK but many other countries are represented. The NT receives a large proportion of younger immigrants, many on 457 Visas which they extend to citizenship as soon as possible. Capability in the workforce is highly variable, many being able to perform at a high level as soon as they arrive, others taking more than six months. While all necessarily speak English, the work-place use of language, including jargon, acronyms and locally-specific names for medications, can take some time getting used to. However, having become established, overseas-qualified nurses and midwives often stay in the NT longer than their Australian-qualified counterparts.

INTRODUCTION

Overseas-qualified nurses and midwives can migrate to Australia and the NT under Australia's skilled migration stream. They can also move here under the family migration stream, or the humanitarian stream. This section presents immigration and Census statistics on the overseas-qualified nursing professionals in the NT and looks at their professional contribution. It then considers their mobility motivations using selected work and social characteristics obtained from the Northern Territory Nurse and Midwife Mobility Survey (N&MMS).

Given the detrimental effects of high nurse and midwife mobility on NT workforce stability and service delivery, the survey results are useful as an indication of what attracts overseas-qualified professionals to come to the NT, what keeps them here and what makes them leave. Recommendations are presented to improve and accelerate the achievement of required professional standards and increase the retention of overseas-qualified professionals. Considering the increase in the volume of skilled migration for 2008–09 announced by the federal government in May 2008, which will undoubtedly bring more overseas-qualified nursing professionals to the NT, this section offers insights into the characteristics, employment and needs of this group.

Overseas-qualified nursing professionals face three issues when considering employment in the NT:

1. Registration:

They need to obtain registration, which requires the recognition of qualifications gained overseas. For those qualified in the major English speaking countries with standards comparable to those in Australia, registration is immediate. Some applicants may also need to prove their English language proficiency. Others need to complete a bridging course to become eligible for registration.

2. English language proficiency:

While a formal English language proficiency test may be sufficient for securing employment, effective communication may still be somewhat difficult.

3. Type of visa:

Australia offers a number of different skilled visa types to nursing professionals with some determining the minimum period of residence and/or employment.

The survey enables a broad estimate of the proportion of overseas-qualified professionals in the NT's nursing workforce. Of 4,307 surveys sent, 1,006 were returned; a 23.4% response rate. The 127 overseas-qualified professionals represent 12.6% of this sample and this may be their approximate proportion of the total employed Territory nursing workforce, a figure not otherwise available.

Although the overseas-qualified group is not usually extracted from the Census, the Census can nevertheless provide a complementary measure of gauging the proportion of the overseas-born nursing professionals employed and living in the NT. According to the 2001 Census, they represented just over 22% of all nursing professionals employed and living in the NT. Their proportion increased to 27% in the 2006 Census. The survey seems to confirm that the overseas-born group is more numerous than the overseas-qualified.

METHODS

Quantitative and qualitative data were used to study the overseas-qualified nursing professionals employed in the NT. The approach to gather data for this section was similar to the approach taken to collect data for the general nurse and midwife population. This section used the quantitative data derived from the 2001 and 2006 Censuses to complement basic statistics obtained from the survey. Given that it focuses on the overseas-qualified professionals, statistics obtained from the Department of Immigration and Citizenship (DIAC), formerly known as Department of Immigration and Multicultural Affairs (DIMA), were also used.

A modified Delphi technique was used to identify the motivations of overseas-qualified nurses and midwives coming to, leaving or remaining in the nursing profession in the NT. The technique employs exploratory interviews with a sample of the workforce to determine the most important issues affecting mobility. Each successive interview adds fewer new issues until most have been considered. The importance of these issues to the wider population is then tested through a survey.

This section relies then on semi-structured interviews with the overseas-qualified nursing professionals and on the survey questionnaire conducted as part of the broader study. To understand the overseas-qualified nursing professionals, information was also gathered in semi-structured interviews with the management at the public hospitals (June–November

2007). Interviewees included four Nursing Directors, five Clinical Nurse Managers and one Human Resources Manager.

The survey instrument included questions specifically designed for the overseas-qualified nursing staff. For example, these enquired about work-related reasons for moving to the NT that would be specific to international migrants, such as the opportunity to obtain a visa to live and work in Australia. These individuals were also asked about their work-related reasons to remain here, such as their visa conditions, or ability to send remittances back home. There were further questions for them in the section covering work-related reasons for leaving the NT but no extra questions were asked about social motivations to leave that related to migration.

Another section of the questionnaire captured the socio-economic characteristics of the respondents and it integrated questions for the overseas-qualified nursing staff. Questions included age, place of birth, residence status in Australia, housing situation in the NT, engagement in community activities, work and training characteristics and length of employment in the NT. Respondents were also given an opportunity to provide additional comments on their mobility experience.

Considering that the absolute number of the overseas-qualified survey respondents was small, and that they represented a small proportion of all survey respondents, a comprehensive statistical analysis of their survey results was not undertaken. Although this approach diverges from the one adopted to analyse results for the whole surveyed sample, even a basic quantitative analysis complemented with information obtained in the interviews, advances our understanding of motivations and characteristics of the overseas-qualified professionals.

The number of respondents giving positive responses to motivations were compared between overseas-qualified and Australian-qualified using Chi-square tests. To understand the effect of motivation for coming, staying or leaving on length of stay, a stepwise linear regression was performed. For all three analyses, the dependent variable was length of employment in the NT (in months), transformed to the square root. The explanatory variables were the motivations for coming, staying and leaving and age. For all three analyses, the model was run first with all motivations and age in a strict linear form without interaction. In a second model, a stepwise regression (both directions: deleting and adding of motivations) was run to improve the model fit and to determine which variables contributed to explaining the length of period working in the NT. The best model was found based on AIC criteria (Burnham & Anderson 2002). Corrected AIC (AICc) was used because the number of parameters (k) was relatively large and the ratio $n/k < 40$. This was treated as the final model and used to compare with the explanatory power of groups of motivations taken alone (socially related and work-related) and age. Because the sample size was small no interactions were tested.

RESULTS

Results from the survey distinguish between overseas-qualified and overseas-born nursing professionals. The latter comprised 229 individuals representing 23% of the whole surveyed sample; some 127 respondents qualified overseas. Fewer than five Australian-born respondents had overseas qualifications. They were considered to be part of this group as their credentials would need to be recognised in Australia to enable them to practice. The 127 overseas-qualified professionals represented 13% of all survey respondents. The survey also revealed that there were overseas-born professionals holding Australian qualifications. This suggested that they might have migrated to Australia as children and then pursued their tertiary education here. This group was not distinguished from its Australian-born and Australian-qualified counterparts because issues of foreign qualifications' recognition and English language proficiency would be unlikely. This group is not discussed further in this section.

Of 127 overseas-qualified professionals, 123 specified the country where they obtained their qualifications. Of these, 94 were not New Zealand-qualified. Although the proportions of the New Zealand-qualified and those educated elsewhere in the world were unknown for the group of 127, this group is considered most often in this section. In some instances, the results obtained for them are compared with results obtained for the 94 respondents qualified anywhere but New Zealand or Australia. Given that New Zealand citizens do not need to apply formally for authority to enter Australia, separating them from the larger group shows whether the New Zealand-qualified presence influences the characteristics or behaviour of the larger group.

In line with the approach taken to analyse the entire surveyed sample, missing answers (not stated/not answered) and those marked as not applicable were omitted. Also, to protect individuals' privacy, where five or fewer people were involved, this was not shown in the statistics.

Visas: Subclass 457 (business) long stay and permanent residency

The recent DIAC statistics show that the overseas-qualified registered nurses feature strongly among the 457 visa grants' recipients in the NT. Table 4.1 demonstrates that the overseas-qualified registered nurses were among the top 457 visa grant recipients in the NT in 2005–06 and 2006–07. The NT's high demand for them matched the demand on the national scale (bottom panel of Table 4.1). Contrary to the national picture, in the NT they accounted for a high proportion of all 457 visa grants.

Table 4.2 summarises permanent visa grants to registered nurses in the NT between 1996 and 2007. It reveals the dominance of employer-linked migration over skill independent and family-linked skilled migration. While individuals can be nominated by employers for permanent residency immediately under Employer Nomination Scheme, Labour Agreement or Regional Sponsored Migration Scheme, interviews with management around the NT suggest that the overseas-qualified professionals typically obtain the temporary 457 visas first, which are subsequently converted into permanent visas either under Labour Agreement or Regional Sponsored Migration Scheme. Therefore, the employer-sponsored

visas shown in Table 4.2 reflect the volume of the onshore conversions from temporary to permanent residency.

Although the number of permanent visas has been growing, even their latest annual figure of 46 (2006–07) is still lower than the number of the 457 visas granted between 2006 and 31st March 2007. Specifically, Table 4.1 shows that in 2006–07 (till 31 March 2007), 80 visas were granted in the 457 category. This is almost double the entire number of permanent visas granted in the 2006–07 period (Table 4.2). Such a distribution of permanent and temporary visas suggests that probably more than 50% of the 457 visa holders could become permanent residents in a given year thanks to an employer nomination.

Table 4.1
Top three occupations for 457 Primary Visa Grants, Northern Territory and Australia 2005–2007 (to 31 March 2007)

Northern Territory (NT)			
	2005–06		2006–07
Occupation rank		Occupation rank	
1. General Practitioner	70	1. Registered nurse	80
2. Registered nurse	40	2. General Practitioner, metal fabricator	ea. 60
3. Motor mechanic, chef	ea. 30	3. Motor mechanic	50
Total occupations	480	Total occupations	660
Percentage of registered nurses as total occupations (%)	8.3	Percentage of registered nurses as total occupations (%)	12.1
Australia (AUS)			
	2005–06		2006–07
Occupation rank		Occupation rank	
1. Registered nurse	1880	1. Computing professionals not elsewhere classified	2350
2. Computing professionals, not elsewhere classified	1690	2. Registered nurse	2170
3. Business and information professionals not elsewhere classified	1080	3. General Practitioner	1290
Total occupations	29370	Total occupations	34170
Percentage of registered nurses as total occupations (%)	6.4	Percentage of registered nurses as total occupations (%)	6.4

(Source: Department of Immigration and Citizenship)

Table 4.2
Permanent skill stream visa grants to registered nurses in the Northern Territory, 1996–2007*

Category/occupation	Year		
	1996/2001	2001/2006	2006/2007
Employer sponsored total**	8	57	40
Skilled total***	9	15	6
Total	17	72	46

*principal applicants only

** includes Employer Nomination Scheme, LA and Regional Sponsored Migration Scheme

*** includes Skilled Independent; Skilled Independent – Regional Study (State-Specific and Regional Migration); Skilled-Australian Linked; Skilled-Australian Sponsored; Skilled-Australian Sponsored Regional (Designated Area Sponsor; State-Specific and Regional Migration)

(Source: Department of Immigration and Citizenship)

Table 4.3
Employed overseas-born nursing professionals in the Northern Territory

Citizenship	No. *	%
Australian	308	58.9
Not Australian	215	41.1
Total**	523	100.0

*current usual residents in the NT August 2006

**excludes not stated

(Source: Australian Bureau of Statistics)

Table 4.4
Citizenship status of overseas-born and overseas-qualified nursing professionals in the Northern Territory

Citizenship	No. Overseas-born	No. Overseas-qualified	% Overseas-born	% Overseas-qualified
Australian	162	69	71.7	55.6
Not Australian*	64	55	28.3	44.4
Total**	226	124	100.0	100.0

* includes New Zealand-qualified

** excludes not stated

(Source: Australian Bureau of Statistics)

Legal status: Australian citizenship, permanent and temporary visas

The 2006 Census and survey data reveal that more than half of the overseas-born nursing professionals in the NT are Australian citizens (Tables 4.3, 4.4). It is likely that the overseas-born but Australian-qualified group that migrated here as children contributes to this outcome. When the New Zealand-qualified professionals are excluded from the overseas-qualified cohort, the proportion of Australian citizens reaches 92% and the non Australian-

citizens represent only 9% in this group (total of 92 excludes not stated). This suggests that Australian citizenship is particularly attractive to overseas-qualified professionals other than the New Zealand-qualified.

After excluding cases of legal status not answered and visas not specified, 35 respondents held visas and 19 were New Zealand citizens. In this sample of 54, permanent visa holders were the largest group (37%), followed by New Zealand citizens (35%), and temporary visa holders (28%). Considering that the 457 temporary visa, rather than a permanent skilled visa, is the principal avenue for entry for nursing professionals, it appears that some overseas-qualified individuals may be obtaining permanent resident visas fairly quickly, most probably through the employer nomination, or were more likely to answer the questionnaire.

The temporary and permanent visa distribution is not discussed for the smaller cohort excluding the New Zealand-qualified professionals. As noted above, more than 90% of this group are Australian citizens and the absolute number of the visaed individuals is too small to be broken down without compromising privacy.

The survey did not capture even one Working Holiday Maker visa holder. This visa can be obtained by young people from selected countries with which Australia has reciprocal agreements regarding working holidays. These individuals in Australia can engage in employment to supplement their holiday funds. Since 1 July 2006, WHM visa holders may work for one employer for up to six months, as opposed to three months previously (DIMA 2007). Their absence from the survey results does not mean they do not work in the NT. Some Nursing Directors and Clinical Nurse Managers noted that WHMs worked for them but had relocated elsewhere by the time of the interview. Another possible explanation for their absence from the survey is that it coincided with the build-up season.

Country of birth and obtaining qualifications

The survey reveals that the overseas-born nursing professionals practising in the NT were predominantly born in two English-speaking countries: the United Kingdom (UK) and New Zealand (Table 4.5). This is also confirmed in the 2001 and 2006 Census data (Figure 4.1).

The absolute number of UK-born professionals captured by the 2006 Census (158) is higher than obtained from the survey. This may suggest that these professionals are under-represented in the survey. Based on the 2006 Census, similar conclusions can be drawn about the possible under-representation in the survey of the Filipino, Zimbabwean, South African and New Zealand-born professionals. Furthermore, both Censuses reveal that some Indian-born nursing professionals practise in the NT, although this group is placed beyond the top five countries of birth captured by the survey.

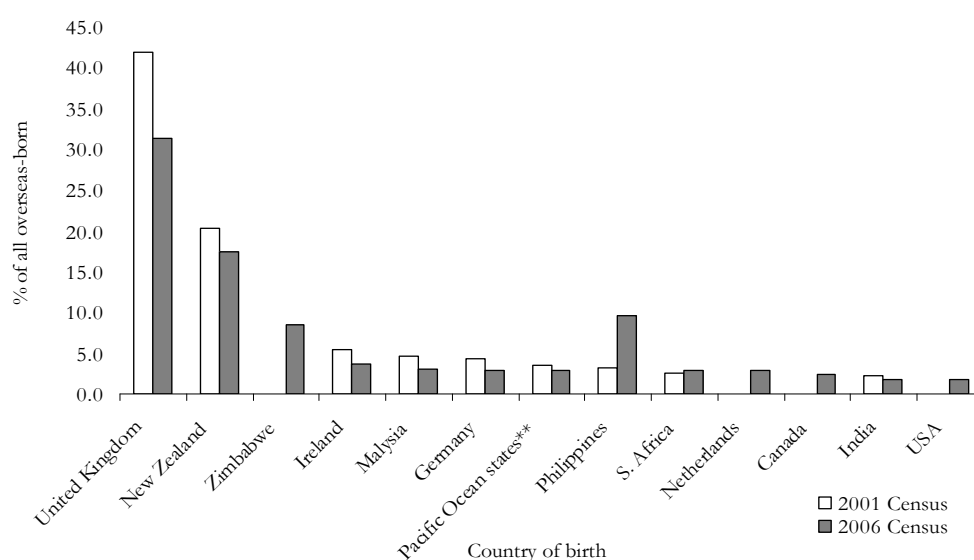
Table 4.5
Overseas-born nursing professionals in the Northern Territory: Top five countries of birth

Rank	Country of birth	No.	% of total
1	UK	91	41
2	New Zealand	38	17.1
3	Germany, Philippines, South Africa	ea. 9	4.1
4	Zimbabwe, the Netherlands	ea. 8	3.6
5	Canada	7	3.2
	Total overseas-born*	222	100.0

* excludes country of birth not stated

(Source: Nurse and Midwife Mobility Survey)

Figure 4.1
Employed nursing professionals in the Northern Territory*: Top nine countries of birth



* current usual residents in the NT

** includes Melanesia, Micronesia and Polynesia (excluding Hawaii)

(Source: Australian Bureau of Statistics)

The Censuses also reveal that recently the proportion of the overseas-born professionals in the NT's nursing workforce has noticeably increased. This increase from 22.5% (349 individuals from among the total of 1,552 in 2001 Census, including 'not adequately described') to 27.4% (506 individuals from among the total of 1,849 in 2006 Census) has occurred at a faster rate than nationally in the same period, at 4.9% and 2.9%, respectively. The 2006 Census proportion of those born overseas in the NT's nursing workforce brings it closer to the national level of 28.7%.

Although in both Censuses the UK-born and New Zealand-born professionals in the NT represent the two largest shares of all overseas-born, these shares are falling. At the same

time, shares of nursing professionals born elsewhere are increasing. The most striking example is the increase in proportion of the Filipino-born professionals between the 2001 and 2006 Censuses (Figure 4.1), which rose from 3.2% (2001 Census) to 9.5% (2006 Census). Both Censuses reveal that the proportion of the South African-born has also minimally increased. Over the recent decades, Australia has increased the diversity in settlers' origins, including an increase in proportion of the non-European born population (see Khoo 2003). This trend is likely to continue. In the case of nursing professionals, this may mean a continued flow of overseas-born and overseas-qualified professionals joining the NT's nursing workforce, but originating from a number of countries with different levels of education. This may require increased attention in recruitment and in the initial period of employment.

Analysis of the survey results showing in which country the overseas-qualified respondents (including the New Zealand-qualified) obtained their qualifications confirms the dominance of the UK and New Zealand-qualified groups. Of 123 responses, 51 individuals held UK qualifications (42%), 29 were New Zealand-qualified (24%), while South Africa and Zimbabwe had 8 individuals each (7% each). No other countries were nominated by more than five individuals.

Year of arrival, age distribution and sex ratio

The 2006 Census enables a comparison of the year of arrival of overseas-born nursing professionals usually resident in the NT, aged 20 and over (at Census) and employed here, with their counterparts in Australia as a whole. In both the NT and in Australia, those who arrived in 1981 or earlier represented the largest share of their respective cohorts (37% and 39%, respectively). The proportion of recently arrived professionals (2002–06) was almost twice as high in the NT as is the case nationally. In that period, the NT has attracted 156 such individuals (31.6% of the whole cohort of 493), as compared to 8,106 individuals (16.8% of the whole cohort of 54,448) in Australia. This may suggest that the NT is employing a disproportionately larger share of overseas-born nursing professionals who have recently arrived in Australia.

Table 4.6 confirms that the NT employs a higher proportion of the recently arrived, overseas-born nursing professionals, than Australia as a whole. This holds across all age groups in the 2001–04 and 2005–06 periods.

The 20–29 year olds merit particular attention. They would have been able to accumulate only a short professional experience overseas before migrating to Australia. The highest proportion of these professionals (noticeably above their corresponding share at the national level) employed in the NT arrived in Australia in 2005–06, though of course, if they arrived any earlier, they would be older. While numerically not large, this group may need particular support in developing Australian-specific expertise, if originating from countries with different standards to the Australian ones. This in turn may put pressure on the already stretched resources.

Table 4.6
Employed overseas-born nursing professionals in the Northern Territory* and Australia:
Age and year of arrival, Census 2006

20–29 at Census					30–39 at Census				
Year arrived	No. NT*	No. AUS	% NT	% AUS	Year arrived	No. NT	No. AUS	% NT	% AUS
1981 or earlier – 2000	16	2587	28.1	52.8	1981 or earlier–2000	79	7563	51.3	62.9
2001–2004	18	1349	31.6	27.5	2001–2004	47	3130	30.5	26.0
2005–2006	23	965	40.4	19.7	2005–2006	28	1335	18.2	11.1
Total**	57	4901	100.0	100.0	Total**	154	12028	100.0	100.0

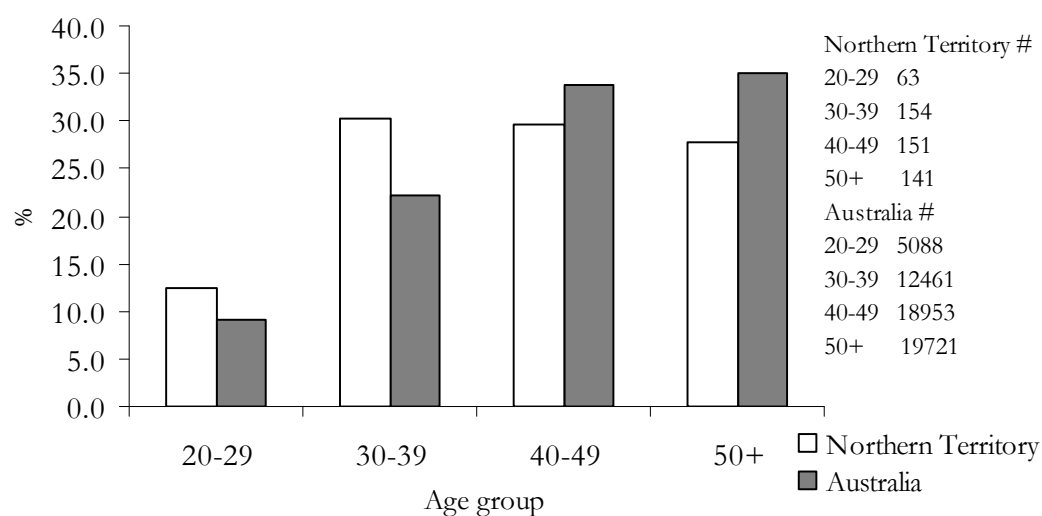
40–49 at Census					50+ at Census				
Year arrived	No. NT	No. AUS	% NT	% AUS	Year arrived	No. NT	No. AUS	% NT	% AUS
1981 or earlier–2000	111	15408	77.1	83.9	1981 or earlier–2000	119	18308	86.2	95.4
2001–2004	21	2146	14.6	11.7	2001–2004	12	669	8.7	3.5
2005–2006	12	816	8.3	4.4	2005–2006	7	212	5.1	1.1
Total**	144	18370	100.0	100.0	Total**	138	19189	100.0	100.0

* current usual residents in the NT

** excludes year of arrival not stated

(Source: Australian Bureau of Statistics)

Figure 4.2
Age group distribution of employed overseas-born nursing professionals in
the Northern Territory* and Australia



* current usual residents in the NT

(Source: Australian Bureau of Statistics)

According to the 2006 Census, the overseas-born nursing professionals employed here are younger than their counterparts in Australia as a whole. Their estimated mean age is 42.8, while that of their counterparts in Australia is 45.2. Figure 4.2 shows higher proportions of the 20–29 year olds and the 30–39 year olds in the NT than in Australia as a whole. Investing in the recently arrived, young and fairly inexperienced overseas-born may be advantageous to the NT in the long run. Their longer working life span may mean that once they gather the necessary experience and choose to remain in the NT, they may provide some continuity of service, frequently lacking in the case of Australian-born.

The survey enables comparison of the age structure of the Australian-qualified and overseas-qualified nursing professionals (Figure 4.3). The overseas-qualified nurses are generally a little older than those qualified in Australia unless the cohort of young New Zealanders is included.

The advantage to the NT is the higher proportion of the overseas-qualified over the locally-qualified professionals in the 30–39 year old group revealed by the survey. But the former have similar proportions of those aged 20–29 and 40–49 and have only a minimally lower proportion of those aged 50 and over. As the overseas-qualified professionals age, investment in the newly arrived from overseas, young nursing professionals may mitigate the consequences. Employment of the New Zealand-qualified professionals who seem to be minimally improving the demographic profile of all overseas-qualified may represent a complementary measure. Given, however, that only 29 of these professionals were captured by the survey, this is likely a minor group, thus unable to have any major, relative effect on the demographic structure of the overseas-qualified nursing professionals in the NT.

The 2006 Census and survey data show that the overseas-born and overseas-qualified nursing professionals in the NT are overwhelmingly women. It is worth noting though that the Census has recorded a higher proportion of the overseas-born male nursing professionals in the NT than in Australia as a whole, at 12.6% and 10.7%, respectively. A higher proportion of the overseas-qualified (including the New Zealand-qualified) than Australian-qualified males was captured by the survey, 15.9% and 8.5%, respectively. This shows that employment of the overseas-born and overseas-qualified nursing professionals in the NT somewhat reduces the dominance of females in this profession.

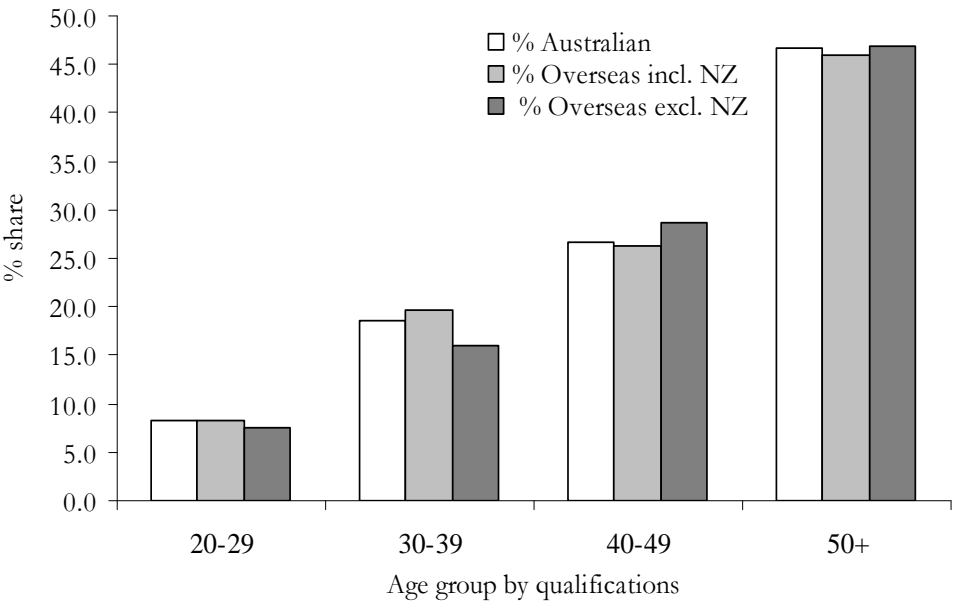
Areas of work and formal qualifications

Figures 4.4 and 4.5 illustrate similarities and differences between the areas of work and areas of qualifications of all overseas-qualified professionals, including the New Zealand-qualified. They represent results for the survey sample of 127 – the most representative one of all overseas-qualified professionals.

While most of the specialties in the two figures overlap, in some cases a higher proportion of overseas-qualified professionals is qualified to work in a given area, than the actual proportion working in such an area. This is true in critical care/emergency (4.6% difference); mixed medical/surgical areas (15.8% difference); medical (16.5% difference); and surgical

(15.5% difference) areas. Skills of these overseas-qualified professionals may be somewhat underutilised.

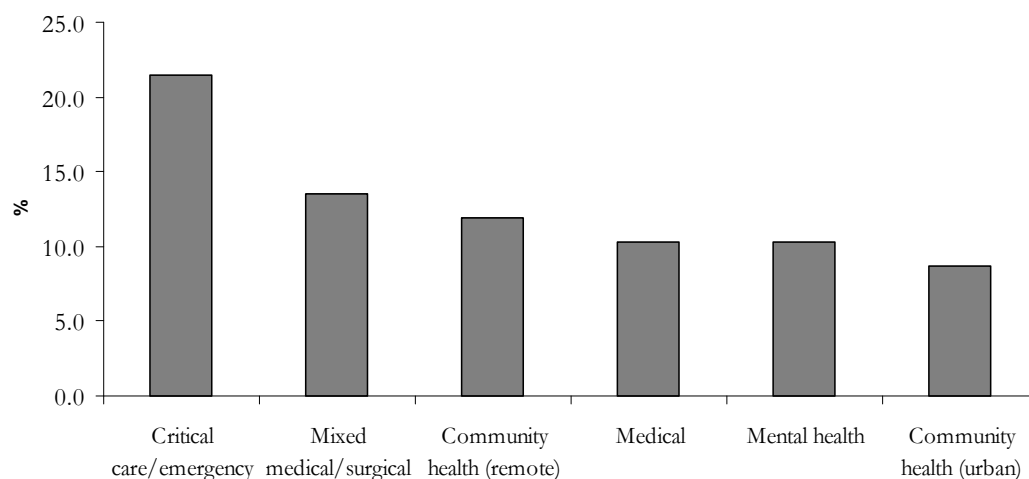
Figure 4.3
Age group distribution of Australian and overseas-qualified nursing professionals in the Northern Territory*



*excludes age not stated

(Source: Nurse and Midwife Mobility Survey)

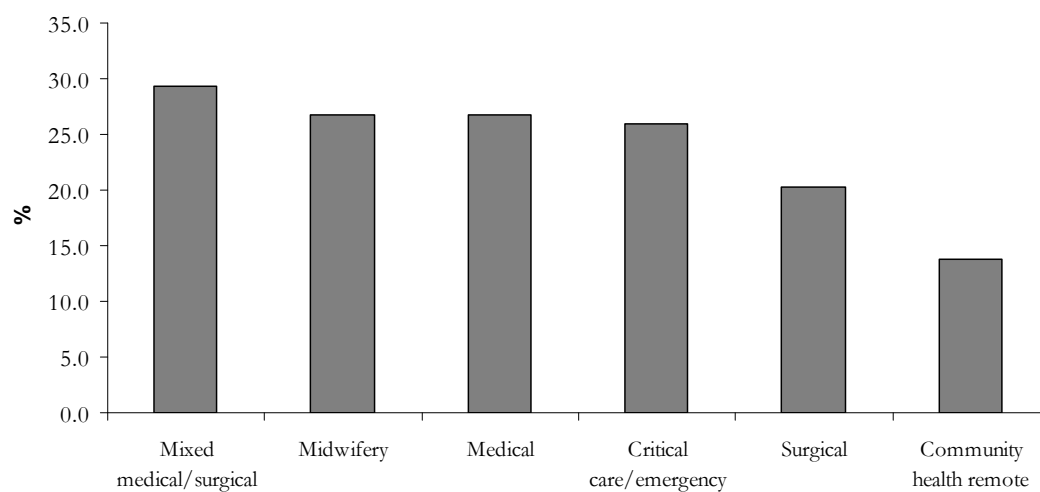
Figure 4.4
Top five areas of work of overseas-qualified nursing professionals*
(including New Zealand qualifications)



* exclude not answered

(Source: Nurse and Midwife Mobility Survey)

Figure 4.5
Top five areas of qualifications of overseas-qualified nursing professionals*
(including New Zealand qualifications)



* exclude not answered

(Source: Nurse and Midwife Mobility Survey)

Confidence at work

The survey questionnaire asked all respondents to estimate how much time it took for them to feel they were working at full capacity in their work area in the NT. Table 4.7 summarises responses obtained from the overseas-qualified professionals. Acknowledging concerns of some Clinical Nurse Managers about the English language competency of some overseas-qualified professionals impacting on their ability to work independently, their answers are clustered according to whether English is or is not the main language. Another issue raised by the managers was that some newly arrived overseas-qualified nurses had an initially reduced capacity to work independently, stemming from their different clinical expertise.

Table 4.7
Country of qualifications and confidence at work of overseas-qualified* nursing professionals

Country of qualifications	Month(s) when confident at work						Total
	1	2	3	3 – 6	6+	Other*****	
Main English speaking countries**	23.6	6.7	19.1	29.2	0.0	21.4	100.0
English language education***	39.1	13.0	8.7	13.0	8.7	17.4	100.0
Non-English speaking countries****	9.1	18.2	9.1	36.4	0.0	27.3	100.0

* based on 123 answers stating country of qualifications

** includes UK, New Zealand, Canada, USA and Ireland

*** includes South Africa, Zimbabwe, Kenya, India and Philippines

**** includes Germany, Austria, Belgium, France, Poland, Indonesia, Thailand and Japan

***** other – not working as a nursing professional in NT

(Source: Nurse and Midwife Mobility Survey)

Table 4.7 shows that the highest proportion of those with qualifications from the main English-speaking countries, and those who were qualified in non-English speaking countries, felt confident after between three to six months. A high proportion of those with qualifications from the main English speaking countries felt confident after one month of work. Such a result could partially be explained by the presence in this group of some long-term Australian residents, who would probably have accumulated the necessary Australian clinical experience.

The respondents from the English language education group gained their qualifications in English, but it could still be their second language. Their self-assessment appears highly positive: they have the largest share of all three groups feeling confident at work after one month. The fairly high proportions of those who do not currently work as nursing professionals in the NT may comprise some who are employed in administration instead of in clinical areas, and those who are registered here but employed interstate.

The interviewed managers generally appear less optimistic about some overseas-qualified nurses working independently soon after arrival. In their assessment, they may gain the necessary confidence after six weeks, six or 12 months, and in extreme cases two years.

This suggests that there is great variance in their performance, and so the findings here identify major trends but clinical skills may differ greatly, even among individuals educated in the same country. Hence, these findings are indicative and may not explain the performance of every overseas-qualified individual.

As far as having the English communication skills at the required level, those having obtained their qualifications in English (despite it being their second language) may have an advantage over the non-English speaking group. When asked about the adequacy of the English language competency of the overseas-qualified nurses, one interviewee observed:

It depends where they come from. African nurses are fine to communicate with staff, for the Chinese nurses it's a huge issue to communicate with staff and patients.

In the opinion of two other interviewees:

For some nurses it isn't [a problem]. It's not the English. Their English is very good. It's the jargon we use. It's also the speech [way of saying things] and the speed... It's time though [that it takes to improve their understanding of Australian English]... [Overseas] nurses learn on the job [pronunciation, etc]. It is also important to empower the nurses to say 'I don't understand what that means'. You don't get it that much with the Zimbabwe nurses, but yes, you get that more with the Indonesian nurses. It's probably them feeling supported enough to say 'I don't understand what you're saying'.

... the amount of jargon we use in everyday speech is amazing... And documentation as well. Because we abbreviate so much as well in our documentation, it's really hard to understand what do you mean by this. Things that we say [Australian-qualified nurses] routinely all the time to an overseas-qualified nurse wouldn't mean anything.

These initial difficulties with the clinical jargon, the Australian slang and different names of medications are commonly recognised by the overseas-qualified nurses themselves, including native English speakers and those from the English language education group.

The linguistic advantage may not always hold when it comes to skills and expertise, underpinning the length of time taken to gain confidence at work. As the interviewee below notes, these different clinical skills may have different causes but it seems that no one knows at this stage, which is the most important.

... there seems to be a big range of skills. Some nurses come extremely skilled and other nurses seem to be more like students. And they're all registered... I think that mostly their work ethic and professionalism is very good. I guess, the clinical expertise is sometimes very different. We had a nurse of ten years from Zimbabwe come to us and she had ten years of experience. And she couldn't do a blood pressure. Then, we were told that in Zimbabwe things are very different. You get one job and your job may be to scrub the pans... so they're not multi-skilled. But it varies. Some Zimbabwe nurses that we got were clinically very good and others have been quite low. I don't know whether it's different provinces, different learning, education...

On the other hand, sentiments about the initial discounting of the overseas skills are common among the overseas-qualified professionals. The interviews suggest though that this typically is accepted as part of the adjustment to a new workplace in a foreign country.

On the first days, people were very friendly but you could feel that some weren't sure how you'd do your things. They were observing. But when they saw that we were doing OK, they relaxed a bit. It was after a month or two when they and us became more relaxed, more confident.

The Clinical Nurse Managers and Nursing Directors agree that the resources needed to ensure that some overseas-qualified nurses can work independently are considerable but worthwhile, given how long these nurses are likely to remain employed. While this may be costlier than managing the turnover of the Australian-qualified nurses (for example in terms of support from other staff), the cost would be higher if they were not employed at all. Moreover, these nurses may support other new overseas-qualified nurses arriving later. Although the turnover rates of the overseas-qualified professionals and associated costs could not be estimated, the consensus among the managers that the overseas-qualified nurses remain employed for considerably longer periods of time than their Australian-qualified counterparts, which suggests that their turnover is low.

Motivations for mobility

The principal motivations for mobility are summarised in Table 4.8 and the full comparison between overseas-qualified nurses is included in Table 4.9. Overseas-qualified nurses and midwives came to the NT for a variety of reasons related to the quality of the job, the lifestyle in the NT and because there was an opportunity to work with Indigenous people. They stayed because they had family and friends here, the work was interesting and they felt they were well-paid, but left to continue travelling or to a new job, because they were dissatisfied with management or felt unsafe. Although there were some substantial differences between the percentages giving positive scores to responses among those qualified overseas compared to those qualified in Australia, the only ones significantly different were the scores for joining the family and for a better future for the family as reasons for coming to the NT; in each case the proportion was highest for the overseas-qualified respondents.

Table 4.8
Top ten motivations for overseas-qualified nurses to come to work in the Northern Territory, Australia, to stay or to leave

Motivation	Motivation type	Overseas-qualified (no. with positive responses)	% with positive responses	
			Overseas-qualified	Australian-qualified
Reasons for coming				
Opportunities for new experiences	Social	101	81	72
Expectation of an opportunity to use a wide range of skills	Work	89	72	69
Expectation of job availability	Work	88	71	74
Satisfaction with providing an important service in an area of need	Work	86	69	67
Better work/life balance	Social	80	65	51
Opportunities for professional development	Work	79	64	64
Attraction of the NT lifestyle	Social	79	64	61
Opportunity to experience indigenous culture	Social	79	64	54
Opportunity to work with Indigenous people	Work	78	63	58
Attraction of the natural environment	Social	78	63	56
Reasons for staying				
Sense of professional independence and responsibility (autonomy)	Work	88	70	68
Income	Work	84	67	63
NT lifestyle	Social	84	67	68
Natural Environment	Social	83	66	63
Clinical variety and challenge	Work	81	65	68
Contributing to Indigenous health	Work	80	64	61
Sense of community	Social	80	64	62
Size of city/town where living	Social	77	62	61
Climate	Social	71	57	57
Personal relationships with staff and patients	Work	71	57	59
Reasons for leaving				
Further travel	Social	27	56	40
Career opportunities elsewhere	Work	25	51	48
Completed employment contract period	Work	24	49	34
Stressful work environment (burnout)	Work	22	45	51
Lack of support from management	Work	21	43	47
Desire for change in lifestyle	Social	20	43	39
Safety issues in work environment	Work	18	37	32
Skills not appreciated/valued	Work	17	35	39
Family and/or social networks	Social	17	35	55
Unreasonable workload	Work	16	33	44

Table 4.9
Motivations for overseas-qualified nurses to come to work in the Northern Territory,
to stay in the Northern Territory, and for leaving the Northern Territory,
ranked by order of perceived importance

Motivation	Motivation type	Overseas-qualified (no. with positive responses)	% with positive responses	
			Overseas-qualified	Australian-qualified
Reasons for coming				
Opportunities for new experiences	Social	101	81	72
Expectation of an opportunity to use a wide range of skills	Work	89	72	69
Expectation of job availability	Work	88	71	74
Satisfaction with providing an important service in an area of need	Work	86	69	67
Better work/life balance	Social	80	65	51
Opportunities for professional development	Work	79	64	64
Attraction of the NT lifestyle	Social	79	64	61
Opportunity to experience Indigenous culture	Social	79	64	54
Opportunity to work with Indigenous people	Work	78	63	58
Attraction of the natural environment	Social	78	63	56
Financial incentives (better salary/wages)	Work	76	61	51
Allure of tropics/desert	Social	75	60	52
Climate	Social	74	60	50
Desire to leave previous place of residence / opportunities for a new start	Social	68	55	46
Prospect of career advancement	Work	65	52	48
Workplace benefits (e.g. return airfare to place of origin, subsidised housing)	Work	62	50	46
Multicultural society	Social	59	48	37
Work or career opportunities for partner	Social	57	46	40
Opportunity to work alongside experienced nurses and midwives	Work	56	45	44
Reputation as a good place to work	Work	56	45	46
Educational opportunities or facilities	Social	54	44	34
Opportunity to work in clinics with good facilities and equipment	Work	52	42	45
Active recruitment programs offering opportunities for nurses and midwives	Work	51	41	37
Familiarity with the NT or similar environment	Social	49	40	34
Attraction of tax benefits associated with remote location	Work	48	39	34

Motivation	Motivation type	Overseas-qualified (no. with positive responses)	% with positive responses	
			Overseas-qualified	Australian-qualified
Reasons for coming cont.				
Provide better future for myself and family	Social	48	39	1*
Positive NT holiday experience	Social	46	37	34
Positive prior work experience in the NT	Work	45	36	37
Opportunity for working holiday	Work	42	34	35
Family and/or social networks	Social	39	31	28
Cost of living in the NT	Social	38	31	20
Perception that the NT is a good place to raise children	Social	34	27	22
Join family member(s)/partner settled in NT	Social	33	27	1*
NT Government nomination for temporary or permanent residency in NT (employment not a pre-condition of migration)	Work	4	57	37
Offer of NT employer-sponsored application for permanent residency in Australia	Work	4	57	34
Pre-arrival information to prepare me to work as a nurse and/or midwife in the NT	Work	4	57	52
Prospect of permanent residency and citizenship	Work	4	57	49
Offer of NT employer-sponsored application for temporary residency in Australia	Work	3	43	36
Visa application turnover in NT quicker than in other states	Work	3	43	28
Opportunity for employment under a Working Holiday Maker visa	Work	2	29	12
Reasons for staying				
Sense of professional independence and responsibility (autonomy)	Work	88	70	68
Income	Work	84	67	63
NT lifestyle	Social	84	67	68
Natural Environment	Social	83	66	63
Clinical variety and challenge	Work	81	65	68
Contributing to Indigenous health	Work	80	64	61
Sense of community	Social	80	64	62
Size of city/town where living	Social	77	62	61
Ability to negotiate suitable employment contracts	Work	71	57	51
Climate	Social	71	57	57

Motivation	Motivation type	Overseas-qualified (no. with positive responses)	% with positive responses	
			Overseas-qualified	Australian-qualified
Reasons for staying cont.				
Personal relationships with staff and patients	Work	71	57	59
Family and/or social networks	Social	70	56	53
Opportunities for professional development	Work	68	54	58
Support from other nurses (incl. Associations)	Work	62	50	48
Opportunity to work in remote locations	Work	54	43	45
No reason to leave or move	Social	50	40	40
Workplace benefits (e.g. return airfare to place of origin, subsidised housing)	Work	50	40	36
Opportunity to be involved in governance or leadership activities (e.g. representing professional bodies)	Work	36	29	28
Job security better than at home	Work	31	39	36
Prospect of permanent residency and citizenship	Social	31	39	0
NT employment and/or residence conditions of current visa	Social	30	38	0
Ability to support family overseas financially	Social	27	34	9
Reasons for leaving				
Further travel	Social	27	56	40
Career opportunities elsewhere	Work	25	51	48
Completed employment contract period	Work	24	49	34
Stressful work environment (burnout)	Work	22	45	51
Lack of support from management	Work	21	43	47
Desire for change in lifestyle	Social	20	43	39
Safety issues in work environment	Work	18	37	32
Skills not appreciated/valued	Work	17	35	39
Family and/or social networks	Social	17	35	55
Unreasonable workload	Work	16	33	44
Educational opportunities or facilities	Social	16	33	39
Problems with housing (e.g. availability, quality, costs)	Social	16	33	39
Small town syndrome (e.g. poor consumer choice, limited social opportunities)	Social	16	34	33
The 'distance from everywhere' factor (e.g. expense/inconvenience of isolation, quality of supermarket goods)	Social	16	34	49
Poor employer-provided housing	Work	15	31	29
Slow rate of innovation in work practices	Work	15	31	41

Motivation	Motivation type	Overseas-qualified (no. with positive responses)	% with positive responses	
			Overseas-qualified	Australian-qualified
Reasons for leaving cont.				
Climate	Social	15	31	23
Cost of living in the NT	Social	15	31	43
Lack of flexibility in working hours/leave	Work	14	29	32
Limited opportunity for career progression	Work	13	27	25
Limited opportunity for professional development	Work	13	27	33
Overseas-gained skills not fully appreciated and utilised	Work	13	50	0
Lack of specialist health facilities	Social	13	27	35
Public antisocial behaviour	Social	13	27	32
Expectations of work experience did not match reality	Work	12	24	25
High administrative load (incl. recruitment and training)	Work	12	24	25
Plans to undertake further study	Work	12	24	27
Limited recreational activities	Social	12	25	24
Racist attitudes	Social	12	25	28
Unforeseen family issues (e.g. poor health, relationship issues)	Social	12	26	27
Not given time to take advantage of professional development opp.	Work	11	22	40
Safety issues outside the workplace	Social	11	23	20
Work or career opportunities for partner	Social	11	23	31
Retirement	Social	9	19	9
Difficulties with working in remote communities	Work	8	16	13
Uncertainty about contract extension	Work	8	16	14
Minimum employment contract an/or residence requirements in NT imposed by visa met	Work	8	31	0
Overseas-qualified nurses and/or midwives treated with reserve by management and colleagues	Work	7	27	0
Nurse/ doctor relationships	Work	6	12	19
Language barrier	Work	2	4	6
Dislike NT lifestyle	Social	1	2	6

* significant difference between overseas- and Australian-qualified nurses Chi Square $P < 0.001$

However, while the overall motivations for coming, staying and leaving were the same between the overseas-qualified and Australian-qualified nurses and midwives, the reasons that influenced their length of stay differed substantially when compared to the group as a whole. Of the four factors that positively influenced length of stay – financial incentives, family, climate and a better future – only the better future influenced the respondents as a whole (Table 4.10). Similarly of the four factors negatively associated with length of stay – opportunities for professional development, positive NT holiday experience, active recruitment programs offering opportunities for nurses and midwives and satisfaction with providing an important service in an area of need – only the opportunities for professional development had any broader resonance.

For reasons for staying there were far fewer motivations influencing length of stay (Table 4.11). Family and social networks were influential across groups but the overseas-qualified nursing professionals also appreciated the size of town in which they lived whereas those motivated by the opportunities to work in remote locations tended to stay a shorter time.

Apart from retirement and, surprisingly, burnout, the reasons for leaving also differed greatly between the two groups, though the sample size was small (Table 4.12). Those who left because of limited opportunities for career progression, further travel or limited recreational activities actually stayed longer than those who left for other reasons but the overseas-qualified nurses were concerned by poor housing, safety issues at home or at work or feelings of isolation.

Both the survey and the interviews suggest that the overseas-qualified nursing professionals remain employed in the NT for extended periods of time. Although none of the overseas-qualified interviewees intended to move out of the NT in the near future, some were able to comment on reasons why some of their overseas-qualified colleagues have relocated interstate. These included family-related reasons, for example, following a partner who would have obtained a job interstate, or joining family established in southern Australia. Some had moved to larger cities for a 'big city' lifestyle and to take up better job offers (this included better financial conditions than in the NT). Less prominent were push factors such as bad management practices. Regardless of the reason, such relocations seemed unusual. The interviewed Clinical Nurse Managers and Nursing Directors also noted that overseas-qualified nursing professionals stayed longer than those trained in Australia.

Table 4.10

Goodness of fit of best fit model to explain influence of motivation for coming to the Northern Territory on length of time working among overseas-qualified nurses and midwives

Driver	Estimate	Std. error	t value	Pr(> t)	Significance (P<)
Constant	1.83912	1.86283	0.987	0.326	
Reasons positively associated with length of stay					
Age	0.15513	0.03339	4.646	0.000	0.001
Financial incentives (better salary/wages)	3.53966	1.2606	2.808	0.006	0.01
Family and/or social networks	2.08474	0.88082	2.367	0.020	0.05
Climate	1.80245	0.87392	2.062	0.041	0.05
Provide better future for myself and family	1.51271	0.85537	1.768	0.080	0.1
Reasons negatively associated with length of stay					
Opportunities for professional development	-3.77709	1.25356	-3.013	0.003	0.01
Positive NT holiday experience	-2.02207	0.85671	-2.36	0.020	0.05
Active recruitment programs offering opportunities for nurses and midwives	-1.83808	0.92561	-1.986	0.050	0.05
Satisfaction with providing an important service in an area of need	-1.86739	1.00653	-1.855	0.066	0.1
Cost of living in the NT	-1.36783	0.94576	-1.446	0.151	

Multiple R-squared: 0.37

Adjusted R-squared: 0.31

F-statistic: 6.50 on 10 and 111 df; P-value: 7.731e-08, RSS = 1929.54, AICc = 361.24, N = 122, K = 11

Table 4.11

Goodness of fit of best fit model to explain influence of motivation for staying in the Northern Territory on length of time working among overseas-qualified nurses and midwives

Driver	Estimate	Std. error	t value	Pr(> t)	Significance (P<)
Constant	-0.65476	1.7472	-0.375	0.709	
Reasons positively associated with length of stay					
Age	0.15355	0.03177	4.83	0.000	0.001
Size of city/town where living	2.63883	0.82568	3.196	0.002	0.01
Family and/or social networks	2.58229	0.83409	3.096	0.003	0.01
Reasons negatively associated with length of stay					
Opportunity to work in remote locations	-2.24732	0.82226	-2.733	0.007	0.01
Personal relationships with staff and patients	-1.23892	0.86862	-1.426	0.156	

Multiple R-squared: 0.31

Adjusted R-squared: 0.28

F-statistic: 10.44 on 5 and 116 df; P-value: 2.761e-08, RSS = 2070.25, AICc = 358.16, N = 122, K = 6

Table 4.12
Goodness of fit of best fit model to explain influence of motivation for leaving the Northern Territory on length of time working among overseas-qualified nurses and midwives

Driver	Estimate	Std. error	t value	Pr(> t)	Significance (P<)
Constant	0.52027	2.43483	0.214	0.832	
Reasons positively associated with length of stay					
Retirement	8.20894	1.48787	5.517	0.000	0.001
Stressful work environment (burnout)	6.54846	1.47784	4.431	0.000	0.001
Limited opportunity for career progression	2.91646	1.34281	2.172	0.037	0.05
Further travel	2.14879	1.02389	2.099	0.043	0.05
Limited recreational activities	2.98743	1.43559	2.081	0.045	0.05
Age	0.07801	0.04476	1.743	0.090	0.1
Unforeseen family issues	1.61545	1.19901	1.347	0.187	
Reasons negatively associated with length of stay					
The 'distance from everywhere' factor	-5.89101	1.25916	-4.679	0.000	0.001
Poor employer-provided housing	-2.97933	1.27354	-2.339	0.025	0.05
Safety issues in work environment	-3.66395	1.56539	-2.341	0.025	0.05
Safety issues outside the workplace	-2.6041	1.40143	-1.858	0.071	0.1

Multiple R-squared: 0.66

Adjusted R-squared: 0.55

F-statistic: 5.99 on 11 and 34 df., P-value: 2.486e-05, RSS = 320.03, AICc = 314.45, N = 46, K = 12

DISCUSSION

This section has presented the statistical profile of the overseas-qualified nursing professionals employed in the NT, discussed their performance at work and analysed their mobility motivations.

Many of the overseas-qualified registered nurses moved here on the 457 (Business) Long Stay temporary visas. In 2006–07 (until 31 March 2007), the number of 457 visas was almost twice as high as the number of all other permanent skill stream visas granted to registered nurses destined for the NT in 2006–07. Registered nurses also topped the list of all occupational groups that were granted 457 visas for the NT in 2005–06 and 2006–07 (until 31 March 2007).

Australian citizenship seemed to be attractive for many overseas-qualified professionals with almost 56% being citizens, or 91% if New Zealand-qualified respondents are excluded. Among the non-citizens, 37% held permanent visas, 35% were New Zealand citizens and 28% held temporary visas. Given a much higher number of the 457 visa grants than the permanent visa grants in a similar period, more than half of the 457 visa holders could have become permanent residents in a given year thanks to an employer nomination.

According to the survey and the 2001 and 2006 Censuses, the two largest groups of the overseas-born were from the UK and New Zealand. These two countries were also the

most often reported in the survey as countries of obtaining qualifications. It seemed that those born in the UK, the Philippines, Zimbabwe, South Africa and New Zealand could have been under-represented in the survey as compared to the 2006 Census. Moreover, both Censuses revealed that some Indian-born nursing professionals were employed in the NT but they were not captured among the top countries of birth in the survey. The share of the overseas-born professionals in the NT's employed nursing workforce increased from 22.5% in 2001 to 27.4% in 2006. In this time the proportions from the UK and New Zealand fell while proportions of those born elsewhere increased, most noticeably the Filipino-born.

A high proportion of the immigrant nurses and midwives employed in the NT are young new arrivals. While this means they are probably less experienced than most immigrants, if they stay, they could form the core of a nurse and midwife workforce that will stay in Australia. Many were not confident in their new jobs. Although all had to speak enough English to get a visa, slang, jargon and acronyms often posed difficulties. Managers were more cautious than the nurses and midwives themselves about how long it took for them to become confident, and skill levels varied greatly even among immigrant nursing professionals from the same country. The managers commented that the resources needed to ensure that some overseas-qualified staff could work independently were considerable but worthwhile given that these individuals tended to remain employed in the NT for longer than their Australian-qualified counterparts.

The managers also offered some ideas that could assist the overseas-qualified staff to improve their professional standards and/or accelerate their achievement. Recognising the short-staffing and high workloads, they acknowledged that attending to these activities would be difficult. The most important suggestions included a skills check at commencement of employment to identify possible gaps and concentrate training in those areas, followed up by another one six months later. A similar two-step approach was proposed in relation to training in caring for the Indigenous patients with the initial training to be scheduled as early as possible, and with a follow-up session one month later. Such an approach would most likely be welcomed by the overseas-qualified professionals themselves as the lack of adequate information seemed to disadvantage them. One of them also suggested including into the CDU-based bridging program a cultural component covering, among other things, communication with the Indigenous patients.

Communication was proposed to be improved by addressing issues of clinical jargon; one interviewed overseas-qualified nurse suggested developing a mini-dictionary with this jargon and offering it to every new, freshly arrived overseas-qualified nurses. Furthermore, the managers proposed an expansion of the medications checklist to ensure understanding of the Australian medication names. Extending orientation period on the ward to at least one week seemed desirable in some hospitals, with more education support during this period also being suggested. Subsidising formal academic education was proposed to upskill not just the overseas-qualified but the locally-qualified professionals, too. Considering different practice in that regard in the NT's hospitals, each centre could adopt its own approach, adequate to its particular needs and resources. Finally, cultural aspects of nursing in Australia going beyond the Aboriginal awareness program were proposed to be better addressed. This could be a measure facilitating communication and assisting in the learning process,

leading in turn to achievement of the required professional standards. The need for these cultural aspects of nursing to be addressed was also confirmed in interviews with the overseas-qualified nurses themselves.

It was recommended that a ‘cushioned landing’ would enhance retention. Assistance with securing accommodation was one such recommendation, especially given that 457 temporary visa holders are subject to rules of the Foreign Investment Review Board, which limit purchase opportunities and hence these individuals encounter particular difficulties in getting settled. Partnerships with local real estate agents are proposed to be considered in the first instance. An information package facilitating settlement into the community was proposed by the managers, as a result of them being approached for this sort of information on top of the work-related issues. An easy way to do it would be to compile a list of relevant electronic links and attach them to all out-going communication between the employer and the individual prior to immigration. Apart from benefiting the nursing professionals, the managers could potentially gain time to concentrate on their core business.

Offering financial rewards to those achieving higher academic qualifications was also proposed – this could benefit not only the overseas-qualified staff but the locally-trained nurses and midwives. Apart from potentially reducing the financial incentives to move interstate, the professional standards could be raised at the same time. In recognition of the survey results indicating that the opportunity to contribute to Indigenous health was an incentive to the overseas-qualified professionals to come to, and remain in the NT (also recognised as an incentive to the locally-trained professionals), a structured program to support and enable work experiences in relevant areas could be offered.

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5. COSTS OF STAFF TURNOVER

SUMMARY

Costs of staff turnover were calculated from records of the Department of Health and Families (DHF), and were estimated to average \$10,734 per turnover (\$5,963 – \$22,123). This was broken down into:

- Recruitment 40% (\$4,659: \$2,074 – \$7,485)
- Reduced productivity (new hire) 28% (\$3,727: \$755 – \$11,484)
- Vacancy 21% (\$1,511: \$0 – \$5,336)
- Training 7% (\$699: \$71 – \$2,726)
- Termination 1% (\$139: \$65 – \$309)

The total annual cost of nursing workforce turnover for the department was estimated to be \$6,884,519. Costs varied considerably between work sectors, with remote being the most expensive. The methodology applied in these estimates is conservative and in particular does not include the costs of reduced service delivery resulting from high staff turnover and applies a modest weighting for reduced productivity of new recruits, which are major cost components in a number of international studies.

INTRODUCTION

Nursing turnover is important as it affects budgets, diverts senior staff from other tasks and may impact on health system performance. Estimates of the costs of nursing turnover vary greatly, however, with studies published between 1990 and 2006 reporting costs ranging from UK£494 (US\$768) to US\$67,100 per nurse (Jones 2004, 2005, O'Brian-Pallas et al. 2006, Gray et al. 1996). While inflation will account for some of the variation, differences may also arise from disparities in definitions, methodologies and study settings.

For example, Jones' Nursing Turnover Cost Calculation Methodology (NTCCM) produced an estimate of US\$10,098 per registered nurse (RN) in 1988, but after a revision that added new cost categories, calculation methods and data closer to the point of service, it produced a cost of US\$67,100 per RN in 2002 (Jones 2004, 2005). After adjusting for inflation, this result is about three times greater than that obtained in 1988. Jones (2005) attributed the difference to the more comprehensive estimation and increased expenditure on filling vacant positions and the inclusion of the reduced productivity associated with resigning nurses. Other studies conducted in the United States (US) at a similar time by Waldman et al. (2006) and O'Brien-Pallas et al. (2004) produced cost es-

timates that were half the size of Jones' estimate (US\$31,486 and US\$33,062, respectively). The breadth of costs in these studies was narrower and there are differences in study population and setting. For example, O'Brien-Pallas et al. (2006) focussed on nurses providing patient care including less qualified nurses such as enrolled nurses (ENs) in Australia, but excluded nurses in administrative and specialist type roles such as midwives. They included internal (transfers within the organization) and external turnover, but excluded dismissals, voluntary retirements, maternity absences and other involuntary turnover (O'Brien-Pallas 2006). In contrast, Jones (2005) focussed on RNs and external turnover regardless of whether it was voluntary or not. Waldman et al. (2004) did not distinguish between types of nursing staff or turnover, but noted that bureaucratic and academic obligations in their study setting (a university hospital) may have increased recruitment costs.

Focussing on sub-sets of nurses and turnover may improve the precision of estimates, but be less useful to managers who need to make decisions and policy across the organization. Furthermore, it is not clear that the process and costs associated with replacing a nurse will differ depending on the nature of the departure (voluntary or involuntary) or whether the new hire is an existing member of staff, especially if they must win the position on merit against other applicants. The broader range of costs included in more recent studies will better reflect the economic impact of nursing turnover. However, with the exception of Jones, there is often insufficient detail about cost components to determine whether studies have used an incremental cost approach. That is, whether they have only counted those costs that would not have been incurred if there had been no turnover. For example, including the payout of unused leave and other entitlements at termination of employment would be inconsistent with an incremental approach. These entitlements are owed regardless of whether the nurse terminates; if not used they would be a liability carried forward into the next period. Accordingly, termination affects the time of payout, but it would not be considered to be an incremental cost of turnover. The inclusion of equipment costs and office overheads also suggest that other costs, which are incurred regardless of turnover, may have been included in costing studies.

A large cost component in studies tends to be productivity losses arising from turnover. Most studies include or acknowledge the reduced productivity of new hires, but costs differ depending on the inputs used to calculate this cost. These inputs comprise of starting productivity, the time it takes the new hire to reach full productivity and the shape of their learning curve. Waldman et al. (2004) showed how the assumption of a linear learning curve can more than double the cost of lost productivity compared to an assumption of a non-linear curve where 80% of learning is assumed to have occurred in the first 20% of time in the job (US\$14,026 compared to US\$6,027). Jones (2005) showed that experience affects the shape of the learning curve. She found that inexperienced nurses needed six times longer than experienced nurses to reach the same level of productivity. Her estimates were based on a staged linear approach where, for an experienced nurse, productivity was zero upon commencement, increased linearly to 75% productivity at the end of the first two weeks, 85% at the end of the fourth week and 90% at the end of the sixth week (time to 100% productivity was not assessed). These examples show that assumptions made regarding the inputs for calculating the reduced

productivity of new hires can have an important influence on the magnitude of this cost item.

Most studies on the cost of turnover have been set in the United States of America (USA). O'Brien-Pallas et al., however, estimated costs in the USA and three other countries – Australia, Canada and New Zealand. Cost estimates in these countries were much lower than in the USA with the estimate for Australia – US\$16,634 per nurse – being about half that for the USA (2006). It was unclear whether the lower cost in Australia reflects country-specific differences or data limitations.

The current study adds to the literature by providing further estimates of the cost of nursing turnover in Australia. It also provides cost estimates across an organization providing a range of health care services in urban and isolated regional (remote) settings in the NT. The study applied an incremental approach and captured visible costs such as those relating to hiring and training of replacement nurses as well as less visible costs such as lost productivity and administration of the turnover process.

METHODS

Data was collected retrospectively from nine branches within the DHF. These branches provide acute care, mental health, primary healthcare, community nursing and public health services. The period for the analysis was the 2006–07 financial year (1 July 2006 to 30 June 2007).

To facilitate data collection, a template was developed that identified cost items and data elements needed for the calculation of costs. Items included in the template were guided by the literature, most notably Jones' revised NTCCM (2005). Expenditure data was accessed through DHF financial databases. Data was also gathered using semi-structured interviews from key personnel, as recommended by senior management and further directed by personnel during the interviews. For estimates of reduced productivity of new hires, relevant interviewees were asked to provide their own estimates or select from a list of estimates drawn from the formal and informal literature. Where interviewees provided a data range for a cost component, the approach of Waldman et al. (2004) to include the lower rather than higher estimate, was adopted.

Costs were classified into five components:

1. Recruitment costs (costs of hiring a permanent replacement) – advertising; staff time spent on recruitment, administration and other arrangements for new hires; office equipment; and relocation (airfares, chattels) of new hires.
2. Training costs (to train and orientate new hires) – labour costs; and training materials.
3. Reduced productivity costs (the lesser output of new hires during orientation and on-the-job). Additional data on reduced productivity was obtained from the

nurse and midwife mobility survey (Section 4) in which respondents estimated the time it took them to reach full productivity.

4. Termination costs (costs incurred when a nurse departs from the organization) – staff time spent on interviews and other exit processes, processing final payments, and transition arrangements; and reduced productivity of departing nurses.
5. Vacancy costs (the cost of temporary nurses until a permanent replacement is appointed) – surcharges for overtime and agency nurses; and reduced productivity of temporary personnel.

Consistent with the incremental approach, the costs of DHF equipment and facilities used for training and orientation were excluded as they tend to be fixed in nature. Additional costs were expected to be relatively minor. Staff time spent training new hires was included, but for DHF orientation courses where nurses attend along with non-nursing staff, the incremental cost of attendance is small. The large volume of nursing turnover may mean, however, that additional courses are provided so the average cost per participant was used to estimate this cost. Office and other equipment for personnel undertaking recruitment and termination functions were included if those positions dealt solely with nursing turnover and there was the potential for savings if turnover was reduced.

Reduced productivity was estimated at 100% during the orientation period. During this time new hires attended courses or were in the workplace as supernumeraries (additional to the prescribed number of staff). Once they began the job, reduced productivity was based on an estimate drawn from the literature (where chosen). If branches made their own estimate, a linear approach, which required the input of a starting productivity level, time to full productivity (100%) and wages. New hires were assumed to stay long enough to reach full productivity. Consistent with previous studies, wages were used to value lost productivity and these were based on the typical grade of a commencing nurse, which varied by branch. It is noted, however, that the centralised fixation of wages for public sector nurses may mean that wages do not adequately reflect the marginal product of labour.

Estimates were not made of time spent by nurses preparing applications, attending interviews and other aspects associated with seeking and obtaining a new job. Impacts on patients such as delays or errors in care by new hires were also excluded from the study. Key personnel were, however, asked a general question on other impacts of nursing turnover, which provided an opportunity to comment on this issue. One interviewee advised that she had examined staffing levels and patient incidents in her work unit and found that, when there were recruitment difficulties and staff levels were lower, incidents tended to be higher. Further details could not, however, be obtained. These exclusions mean that the analysis reflects the costs incurred by the NT Government rather than society more broadly.

Data on total numbers, commencing and separating nurses were accessed from DHF personnel databases. Like O'Brien-Pallas et al., both RNs and ENs were included in the study. ENs, who provide care within the limits of their training and under the supervision of RNs, comprise 9% of DHF nurses (2006). Contrary, however, to O'Brien-Pallas et al., nurses in administrative and specialist roles were included to capture the general nursing workforce regardless of whether they directly or indirectly contribute to the delivery of health care in the NT. Beginner nurses participating in the graduate nurse program (a post tertiary schooling transition year) were excluded from the study as their recruitment, work program and employment terms differ from that of the general nursing workforce.

Turnover was calculated by dividing the number of separating nurses by the average number of nurses employed during the financial year. Turnover was expected to be primarily voluntary in nature as dismissals, retirements and redundancies tend to be rare. For example, exit interviews over a seven-year period revealed that only 1% of nurses were leaving due to retirement. Many nurses, however, recorded breaks in their employment with DHF, but the data could not reliably identify the cause for the break. Travel, family circumstances and the use of contracts for defined periods to attract staff to difficult-to-fill positions may give rise to these breaks. It was decided that nurses who discontinued then resumed employment with DHF within one month were classified as continuous employees. Nurses with breaks over one month were considered to have turned over. Internal turnover either within or between branches could not be reliably identified from the data, but selected tracking of individual nurses indicated that a reasonable number may be moving between branches. The inability to include these nurses in the turnover denominator means that there is an upward bias in the per nurse cost.

For commencing nurses, data was not available to determine whether they were occupying a position vacated in the previous financial year. Thus, no adjustments were made for the presence of these costs in the period under study. Similarly, some costs relating to turnover at the end of the study period may have been omitted if they were incurred in the following financial year. Nurses hired to fill newly created positions could also not be identified from the data; however, it was expected that their recruitment and reduced productivity would be the same as that for vacancies that arose through turnover. Thus their inclusion is unlikely to affect the average cost for recruitment, training and reduced productivity, but will bias termination and vacancy costs in a downward manner.

RESULTS

The nine branches employed 1,710 nurses (1,461 full-time equivalent; FTE), and represented 96% of nurses employed by DHF. The size of the nursing workforce in the branches ranged from 29 to 772. The branches provided health services through five acute care facilities with a total of 569 beds (minimum 20 beds, maximum 297); two mental health inpatient facilities (34 beds); primary healthcare centres in 56 remote communities; and community services (nursing, mental health, disease control) in the NT's five major centres – Alice Springs, Darwin, Katherine, Nhulunbuy and Tennant Creek. A total of 644 nurses (562 FTE) separated from the branches and 713 nurses

(625 FTE) commenced in the branches. Turnover in the nine branches ranged from 13% to 83%. Total turnover was 38%.

The total cost of turnover for the nine branches was estimated to be \$6,884,519 (Table 5.1). Recruitment costs for replacement nurses accounted for 40% of total costs. Over half of these costs were due to staff time spent on recruitment and associated administration and recruitment agency fees, which could be seen as the ‘outsourcing’ of these aspects of recruitment. A further 23% of recruitment costs was for the relocation of new hires. The second largest component of total costs, at 28%, was reduced productivity of new hires. Vacancy costs accounted for another 21%.

The per nurse turnover costs are presented in Tables 5.2 and 5.3. The mean turnover cost per commencing nurse was \$10,734 (about 15% of the average cost of a N2 nurse), but costs ranged from \$5,963 to \$22,123 per nurse across the branches. Of the components, the costs of recruitment, training and termination were the most easily determined. Together they amounted to \$5,497 (51%) of the mean turnover cost per nurse. The reduced productivity of new hires during orientation and on-the-job training accounted for a further \$3,727 (35%) and the cost of temporarily filling vacant positions was \$1,511 (14%). There was considerable variation across the branches in the estimates of some cost components most notably reduced productivity where the highest estimate was 15 times that of the lowest estimate; and training costs where the highest estimate was 38 times that of the lowest estimate.

The mean cost of \$10,734 per nurse was based on the headcount number of nurses to reflect the actual number of nurses commencing with the branches. However, had FTE numbers of nurses been used, the mean cost would have been 16% higher (Table 5.2). Using headcount numbers of separating nurses would also have resulted in a higher mean per nurse cost, but the increase was much smaller (5%). As discussed in the previous section, there is some bias from using commencing nurses as the denominator and the net effect is likely to bias downward the per nurse cost. Across the branches, there were 54 more nurses (8% of commencing nurses) in 2006–07 compared to 2005–06, which is consistent with reports of the creation of 55 new FTE nursing positions in 2007.

Patterns occurred in the mean turnover costs across the branches. Branches providing acute care services had the lowest turnover costs while remote primary healthcare services had the highest costs. The turnover costs for branches providing community nursing and disease control services tended to fall midway between these higher and lower groups. Within the branches providing acute care services, higher turnover tended to be linked to higher costs, if the effect of location was removed (branches located in more remote locations had higher relocation costs).

Table 5.1
Total costs of turnover among nurses and midwives in the
Northern Territory Department of Health and Families

Cost Component	\$	%
Recruitment	2,734,962	40%
Training	684,652	10%
Reduced Productivity (new hire)	1,958,357	28%
Termination	75,714	1%
Vacancy	1,430,834	21%
Total Turnover Costs	6,884,519	100%

Table 5.2
Mean turnover costs among nurses and midwives employed by
the Northern Territory Department of Health and Families

Turnover Cost	\$
Mean branch turnover cost	
per commencing nurse	10,734
per commencing FTE nurse	12,464
per separating nurse	11,222

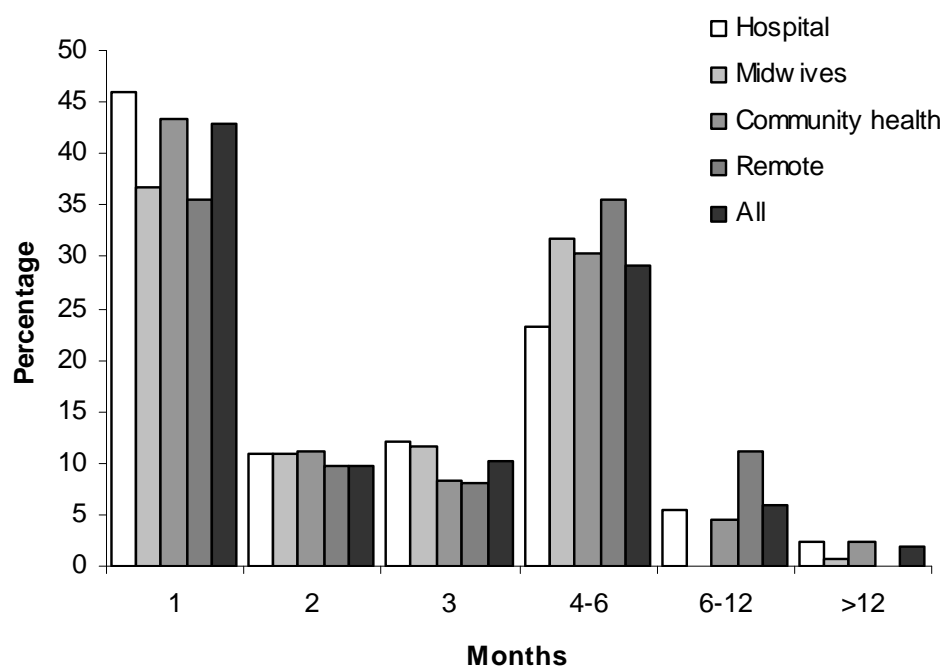
Table 5.3
Turnover costs per employee among nurses and midwives in
the Northern Territory Department of Health and Families

Cost Component	Mean (\$)	Range (\$)	%
Recruitment	4,659	2,074 – 7,485	43
Training	699	71 – 2,726	7
Reduced Productivity (new hire)	3,727	755 – 11,484	35
Termination	139	65 – 309	1
Vacancy	1,511	0 – 5,336	14
Total Turnover Costs	10,734	5,963 – 22,123	100

Reduced productivity of new hires was a major cost item. Most branches estimated a time taken by newly hired nurses to reach full productivity rather than choosing from the literature. The times ranged from six days to six months, but most were under three months. The short periods reflected branches' employment of experienced nurses and the belief that they reached full productivity quite quickly except where the setting or nature of the work required specialised skills and knowledge. Two branches did comment that overseas nurses, although experienced, took substantially longer (six months or more) to become fully productive. However this cost had largely been subsidised by

the Australian Government, which pays these nurses during their training period. Branches did not provide an estimate of the starting level of productivity (post orientation) for new hires so 75% productivity was used. To test the impact of this decision, the analysis was run using a starting point of 50% productivity. It increased the mean turnover cost per nurse by 5% to \$11,304.

Figure 5.1
Time estimated by nurses and midwives before they reached full competence after joining the Northern Territory workforce



(Source: Nurse and Midwife Mobility Survey)

These productivity estimates reflect the perceptions of managers. Respondents in the Nurse and Midwife Mobility Survey were asked how long it took before they felt confident to work at full capacity in their current work area in the NT (1 month, 2 months, 3 months, 3–6 months or more than 6 months). There were differences in response depending on nurses' areas of work (Figure 5.1). Nurses who responded that they were working in remote community settings were more likely to report taking longer to feel confident in their roles. For example, 35% of these nurses estimated it took one month to be fully confident compared to 50% of nurses working in other settings while 46% estimated it took more than three months compared to only 30% of other nurses. These results suggest that managers may be underestimating the time to reach full productivity. When the survey results were used to estimate on-the-job productivity losses, the mean cost per nurse increased by 7% to \$11,482. If a 50% starting productivity (rather than 75%) was used, the mean cost per nurse increased to \$14,110.

While the choice of a 75% starting productivity and use of manager's estimates of time to full productivity might be giving rise to a conservative estimate of productivity losses, the assumption of a linear learning may be overstating the productivity loss. Following Waldman et al. (2004), productivity losses were estimated using a non-linear learning curve where 80% of the learning occurred in the first 20% of time. This approach resulted in 13% reduction in the mean cost per nurse from to \$9,361.

No estimates of reduced productivity pre-turnover were made as key managers indicated that almost all staff were diligent in their work until departure. Managers also noted that there may be impacts from turnover on other staff. For example, turnover could destabilise other long-term staff precipitating their departure or exhaust and frustrate ('rust out' – a slow erosion over time) staff because they are unable to achieve goals due to turnover and the time spent on staffing matters. No branch made estimates of the productivity impacts on other staff members from exiting nurses or the presence of new hires except for time spent on specific tasks such as exit processes and orientation arrangements.

The third largest cost component was vacancy costs. Costs ranged between zero and \$5,336. Branches with no vacancy costs left positions unfilled until a replacement nurse was recruited. While the unpaid wage represents a cost saving, it would be offset by a loss in productivity. Assuming a 100% loss, valued at the nursing wage, the net cost would be zero. It is noted, however, that the net cost could be positive if co-workers are able to lift productivity to cover some of the loss, but this may not be sustainable. Other branches temporarily filled positions through overtime, agency nurses (from firms that provide temporary staff) and short-term reassignment of DHF staff. While the latter could not be quantified, in 2006–07 the branches in the study spent over \$16 million on agency nurses and overtime. This amount represents over 210 FTE nurses. One branch provided an estimate of the proportion of this expenditure that was applicable to filling vacant positions (20%) and this was applied across the branches. Of this expenditure, only the difference between agency and overtime costs and the wage that would have been paid to permanent staff was included in the estimate of vacancy costs. One branch suggested that, if staff used to temporarily fill vacant positions lead to a poor skill mix, there could be a productivity loss of up to 35% in a section. It was also suggested that the productivity of agency nurses was lower because, compared to permanent nurses, they were less familiar with the workplace and less committed to the objectives of the organization. To account for these factors, agency nurses were assumed to work at 90% productivity. The productivity of nurses working overtime may be lower, for example, due to fatigue, but no allowance was made for this in the costing. Reduced productivity costs accounted for 9% of total vacancy costs.

A key cost impact that was mentioned by most branches was the high cost and difficulty in housing staff. DHF provides accommodation for nurses, particularly in locations outside Darwin. Accommodation costs were deemed to be staffing costs and only incremental costs such as cleaning and preparation of accommodation for new hires were included in the costing. One branch, however, asserted that its increasing need to lease properties was due to turnover, but this seems unlikely with turnover rates declining in recent years. Rather, it is likely that recent increases in rents and local housing prices

have meant that staff are more likely to use and prolong their stay in DHF housing. These changes will mean less DHF accommodation is available, forcing branches to lease additional properties to attract new hires. Thus, these costs are likely to be due to housing market conditions rather than turnover unless terminating nurses are predominantly those who are living in private housing. Housing could, however, indirectly affect turnover by causing delays in the arrival of new hires (increasing vacancy costs), deterring nurses from considering or accepting positions (increasing recruitment costs) or increasing turnover as new hires, frustrated and unsettled by housing issues, decide to leave the Territory.

To calculate reduced productivity and staff time spent on turnover activities, the model used the average wages (remuneration to staff including on-costs such as allowances, penalty payments, superannuation and payroll tax) paid in 2006–07 by grade and branch. The impact of the level of wages used in the model was investigated. Had a common cost (the DHF average) been used for all branches, there would have been little change in the mean cost per nurse. A rise in wages of 4% (typical of current annual increases) increased the mean per nurse cost by 2.7%.

DISCUSSION

Branches providing acute care services had the lowest per nurse turnover costs. However there was considerable variation within this group. Differences in the level of turnover and the remote location of some services contributed to this variation. In discussions with branches, relocation costs were often raised as a major concern; however, the costing showed that these were not a major cost driver for most branches. This expenditure is, however, highly visible and branches tended to have quite restrictive policies on eligibility and levels of reimbursement. Less emphasis was given to other substantive, but less visible costs, such as the reduced productivity of new hires. Thus it may be better to incur higher recruitment and relocation costs if it secures nurses who will stay longer and thus, reduce other costs of turnover.

The branch with the lowest turnover cost had specifically sought to reduce turnover. A key strategy it had adopted was to expand the EN workforce using local people and encourage ENs to train as RNs. This strategy was believed to create a more stable workforce and reduce the need to recruit interstate RNs and incur the associated costs.

Remote primary healthcare services had the highest turnover cost because of the specialised nature of the work and the unique conditions of workplaces resulted in high training and lost productivity costs for new hires. Vacancy costs were also high, which reflects the difficulty of getting permanent staff suited to work in these services and the high cost of temporary replacements.

Of the branches that fell between the highest and lowest cost groups, the key drivers were reduced productivity and recruitment costs. These branches tended to provide specialised services such as mental health, child and maternal health, control of communicable diseases and immunisation. They had greater productivity losses because the ex-

pected time to acquire the necessary level of skills and knowledge needed for work in these branches tended to be longer than in other branches. These branches were also more likely to conduct specific recruitments. Other branches made greater use of 'bulk' recruitment strategies. This style of recruitment involved joint advertising of multiple positions across branches and generic marketing through a website, staff forums and advertisements. Senior staff also accepted direct approaches from nurses seeking work. Bulk recruitment tended to give branches access to a pool of potential staff, lower the cost of advertising and mean that more new hires could be obtained relative to the time spent on recruitment.

The study sought to capture incremental costs and thereby indicate the costs that would be avoidable if turnover was reduced to zero. Savings may not, however, accrue linearly as turnover is reduced. A non-linear relationship would occur because some resources are 'lumpy' in nature. In particular, it may not be easy to reduce the cost components that involve staffing – time spent on recruitment, administration activities and training – as turnover declines. For many staff these activities only accounted for part of their time and it may be difficult to eliminate or make these positions part-time. For example the nursing director and shift managers are still required to supervise staff and operations regardless of turnover. When asked what difference a reduction in turnover would make to their role, most interviewees responded that it would allow them to focus on quality or give them time to attend to other less pressing issues. Thus, rather than reflecting potential savings, the study results could be interpreted as the minimum cost of improving the quality of nursing care. This may result in those savings in the social cost of health care that were beyond the scope of this study.

The mean cost per nurse of \$10,734 in this study was considerably lower than O'Brien-Pallas et al.'s estimate of US\$16,634 (over AUS\$30,000) in 2001 (2006). Even the highest cost among the branches was well below this estimate. It is also possible that staff may have underestimated the resources and time spent on turnover related activities because they tend to be done in bulk rather than individually. Moreover, in a narrower study setting like that of O'Brien-Pallas et al., it may be possible to better identify and measure the costs associated with each incidence of turnover. In particular, the training costs and loss in productivity of new hires relative to the person they are replacing could be better quantified. In the current study, orientation courses and standard training activities, for example, learning IT systems or time spent with clinical educators, were captured, but other training at an individual level could not be quantified. Estimates of lost productivity were also likely to be lower with only limited impacts on co-workers and supervisors being captured and new hires having lower reduced productivity costs because they were assumed to be experienced and reach full productivity in a relatively shorter timeframe.

However, as shown by the sensitivity analyses, the assumptions made about new hires' starting productivity levels and learning curves had a substantial impact on the estimate of productivity losses. There was also a difference between managers' perceptions of the time taken to reach full productivity and the perceptions of surveyed nurses. Further research to measure the inputs into the productivity equation more accurately would be valuable for improving cost estimates. Studies also tend to assume that new hires oper-

ate at less than full productivity for some time. This situation may not always be the case when experienced nurses are being recruited. Initially, when the new environment is unfamiliar, their productivity may be reduced, but after this period they may bring experience and ideas that result in a higher level of productivity than was achieved with the former incumbent (Eley et al 2007). In this case, there could be a net benefit from turnover.

Other factors also mean that the current study's result is a conservative estimate of the cost of turnover. Use of lower bound estimates lowered termination costs and some estimates of staff time spent on turnover activities. The numbers of commencing nurses included nurses filling newly created positions and this will have reduced the per nurse termination and vacancy costs.

Vacancy costs in the current study were much lower than in other studies, particularly Jones' (2005) most recent study where they account for a disproportionate amount of total costs (72–78%). Some elements of vacancy costs are not applicable in this study setting, for example, forfeited revenues (the branches are publicly funded and services mostly provided free of charge to clients). Branches also sought to replace exiting staff before they left and the bulk recruitment process may facilitate this aim. Some branches do, however, spend a considerable amount on agency nurses and overtime, but the estimate of the proportion of these costs that were related to turnover was based on one branch's response and may not be representative of the circumstances of other branches. It is also possible that the study captured the direct effect of turnover, but did not capture indirect effects, for example, an increase in absenteeism due to additional stress placed on remaining staff or that periods of high turnover coincide with periods of high demand for health services necessitating a greater number of temporary staff. A prospective study may be able to identify these effects more precisely and so quantify vacancy costs more accurately.

The study used headcount number of commencing nurses as the denominator to determine the per nurse cost. The cost per FTE nurse might seem a better reflection of the cost of turnover because it will account for the impact of part-time staff replacing full-time staff. The difference, however, between headcount and FTE commencements was similar to the difference between headcount and FTE separations. This similarity suggests that little structural change is occurring as part of the turnover process. Like previous studies, it was assumed that decisions to terminate employment are made independently of one another. Qualitative comments however suggested that certain exits or the volume of exits might increase the probability of future exits. Future studies should consider the possibility of this externality, particularly in workplaces with high volumes of turnover or strong team allegiances.

Overall the study revealed that there were considerable differences between branches in the cost of turnover. Costs differed with branches providing more specialised functions tending to have higher costs. Branches providing services in remote locations also tended to have higher costs. These factors, and differences in recruitment processes, complicated the interpretation of the impact of differing levels of turnover; although

higher turnover did appear to be linked to higher average costs among acute care branches.

Data limitations and the scale of the analysis mean that results of this study are likely to be a conservative estimate of the economic impact of nursing turnover on the NT Government. The study captured the avoidable costs of turnover across DHF, but rather than considering these as potential savings that the organization could make. They could be interpreted as the minimum cost of improving quality of health services.

There was an awareness of, and efforts made to curb, the visible costs of turnover, but less consideration seemed to be given to less visible costs, particularly reduced productivity. Branches aimed to recruit experienced Australian nurses and tended to estimate that they had a relatively short period of reduced productivity. Nurses, on the other hand, indicated that it might take longer to reach full productivity than did the managers. Further research on the costs of reduced productivity would be valuable for improving the estimates of this cost and informing management decisions. It is also important as increased competition for experienced Australian nurses is forcing the NT Government to employ more less experienced or overseas nurses. These nurses may be easier to recruit, but much costlier in terms of training and reduced productivity.

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6. PERSONAL TESTAMENTS

SUMMARY

Three factors were also revealed to be important by written comments that reinforce the results described above. The first was inappropriate workplace behaviour such as bullying. Secondly the desire for greater financial incentives to stay was expanded upon by many respondents. Thirdly the dissatisfaction with management evidently influenced many nurses and midwives.

INTRODUCTION

Numbers tell only part of the story. As valuable and revealing in many ways are written commentary describing why people have acted in the way they have. The NT Nurse and Midwife Mobility Survey provided the opportunity for respondents to give additional information. Over half the respondents to the survey used this opportunity to elaborate on their answers or provide information not already covered in the survey. Several themes emerged from the comments.

METHODS

All comments were assembled in a database and a textual analysis performed to identify the main features in each comment. These features were then matched against demographic and motivational characteristics.

RESULTS

Inappropriate workplace behaviour

Bullying or any other forms of discrimination or maltreatment by colleagues was not listed as a motivation in the 'reasons for leaving the NT workforce' section of the survey. Nevertheless about 4% of respondents commented on this in the additional comments section, saying that they had either experienced or witnessed inappropriate behaviour, or both. Despite this, the data suggest that over half the respondents who commented on 'bullying' behaviour have not left, or do not plan to leave, the NT.

While specific references to 'bullying' were quite common, there were other comments on the behaviour of staff (and clients) that were no less definitive.

- Bullying:

Due to acute shortages in the hospital system the amount of overtime contributes to the rate of burnout. Senior nurses leave to take on positions less stressful, leaving junior nurses to cope on

large wards with little or no support from higher management. Junior nurses after hours have no clinical resource to call upon and bullying from nurses in senior groups who are in consultative roles is rife.

- Aggression:

... lack of support and aggression within hospital system against staff and clients!

The antisocial behaviour outside the workplace coupled with aggression within the workplace and poor management practices generated my departure from the NT.

- Horizontal and vertical violence:

From my 3.5 yrs working in the NT, I have seen so many nurses that would have stayed but 'horizontal violence' has pushed them away. There are many 'senior' nurses that 'eat their young'. It is so sad to see it occurring.

While some respondents did not mention 'bullying' as a reason for leaving many suggested that working conditions were unacceptable.

After 11 years I have seen too many friends leave worn out and broken, the work and effort they put in never acknowledged.

After 22 years of nursing I got very tired of no one saying thankyou and the lack of flexibility, begging for holidays when you want them, being sent to other wards when you're not interested in working there – just too much! Time to move on!

I know of at least 10 nurses who choose to work in retail and other areas as they were so badly treated by permanent... staff.

Financial incentives

Ten per cent of the total survey respondents commented on their disappointment in the lack of incentives or rewards associated with their job. For one frustrated respondent the solution is very straightforward:

Over the last 7 years we have filled out so many questionnaires, always saying the same thing to hospital administration: 1. appreciate your staff, 2. offer airfares back to family annually, 3. pay some of the staff's rental costs.

There was a general feeling of being unappreciated by many nurses and midwives. In particular the respondents who considered themselves long-term felt they were being overlooked in the attempt by management to recruit staff:

I believe there is a flaw in the system of recruitment being that, loyal long term staff members who have vast knowledge and experience, especially regarding Indigenous health in the NT get

somewhat overlooked in regards to airfares, subsidised housing etc. whilst short term contract staff (which we have to orientate, teach and support) get many financial incentives.

This is causing tension between long-term and short-term nurses, with one respondent stating:

I find it hard working beside people who get subsidised housing and airfares because they have a short term contract when permanent long term staff do not have the same. We are not valued for making a long term commitment.

Similar comments were made regarding recruitment of other health professionals:

If there were greater incentives for nursing staff (like doctors), more would be willing to move to NT to experience the Territory. Why would we move to a place more expensive (living costs) to be paid less and have poor support at work (due to increasing workloads and poor staffing)?

Respondents often mentioned that current salaries didn't provide an incentive to move to the NT nor was it seen as adequate remuneration for the job:

Further future nursing employments would be improved if NT nurses are given better pay conditions, as current pay does not cover interest rises, increasing food prices, increasing petrol prices and general cost of living. It is an insult to those who have committed to nursing in the NT, especially with improving Indigenous Health. Soon midwife numbers will drop dramatically!!!

Many respondents remarked on the inequity of being unable to salary sacrifice if working external to the public service (e.g. in community health):

... when will this be changed, it will need to be VERY soon or else myself and others will leave and take our extensive 'corporate and local' knowledge with us!

Further inequities were mentioned regarding the practice of providing financial support for those renting their accommodation but not those paying a mortgage.

Poor management

While examples of poor management are not uncommon in any occupation and may well exist in other states, some of the comments did discriminate specifically against the NT:

Management is one reason why I won't go back to the NT to work.

Management have a set of rules for them and another for the 'low life' nurses on the ground. Coming to the NT has made becoming a nurse the biggest regret of my life.

Several comments were in relation to management issues in remote nursing:

I have worked in remote health in several program areas and while I found the work very rewarding and interesting, I was disappointed at the mediocre management skills which lead to some staff doing almost no work at all and refusing to actually cover areas outlined in business plans.

Opportunities

Many respondents commented on the opportunities that working and living in Darwin provides:

I have dared to try in my working life things that I would not have ever tried back in Melbourne. Indeed I probably would not have been aware of the opportunities back there.

I came to Gove because I wanted to get out of a rut and do something different with my life.

I really came for the birdwatching and the natural environment. I thought I would be nervous about nursing Indigenous folk but, I've been surprised by how tolerant of us they are! And I'm hoping to stay for longer than I first planned.

The work experiences particularly visiting and working in remote Aboriginal communities is challenging, confronting and really rewarding. My work learning curve is constantly on a sharp incline, I have learnt so much and continue to do so.

Many comments on why respondents left the NT indicate that motivations to leave are not always negative:

After 6 years we feel we have 'seen+done' a lot in the NT, and it is time to move on.

I appreciate the skill, talent and hard work of many of my colleagues that I had the opportunity to work with. I have many marvellous memories to share with my family on the positive experiences and now I teach nursing students about the great and necessary work of nurses and midwives in Darwin and some of remote areas I was lucky to be part of.

Working in the NT was one of my best professional and personal experiences.

Many of the respondents commented that short term working contracts in the NT were preferable:

Although my permanent residence is NOT in the NT I travel there and work on a casual basis as I enjoy the work on... Aboriginal communities. I have a permanent casual contract which is renewed yearly. This gives me flexibility – work as needed and when I choose.

I obtained a 3 month contract easily and was very happy with the experience. I would like to return in future years for a further 3 months as we travel round Australia.

I have been working short term (2–5 month) contracts in the NT since 2003 and enjoyed every minute of it.

DISCUSSION

While comments from surveys are likely to be from a biased sample of respondents, being those who feel most strongly about particular issues, they can also be a useful guide to issues that may not otherwise arise in formal questions, or can illuminate existing trends. Most comments, such as those referring to opportunities to experience working in the NT, see the natural environment and do 'something different', reflect the motivational reasons for coming to the NT that were apparent in the survey results. Many comments also highlight positive experiences by nurses and midwives who have worked in the NT on one or several short-term contracts. A number of comments, however, raised new issues that had received significant discussion in the grounding phase of the Delphi technique employed.

One such factor was bullying in the workforce. The Australian Nursing Federation, NT Branch has recently experienced an increase in complaints about bullying in the workplace (ANF 2008). Bullying (commonly referred to as either horizontal or vertical violence) occurs with varying levels of intensity across the national nursing/midwifery workforce, with reports of occurrence from veterans (Ball et al. 2002, Woelfle et al. 2007) as well as students and new recruits (Randle 2003). Bullying can range from subtle 'invisible' non-verbal abuse to physical assault (Farrell 1996). In an overseas study aspects of bullying were found to include 'shifting the goalposts, withholding necessary information, undue pressure to produce work, freezing out, ignoring or excluding, and persistent attempts to belittle or undermine the person's work' (Quine 2001, p. 80). The behaviour is often perpetrated by those who were once the victims of bullying, leading to low self esteem, lower standards of patient care (Randle 2003), absenteeism, and, ultimately, nurse turnover (McKenna et al. 2002, Woelfle et al. 2007).

Finance was another issue raised frequently. The comments indicate that at least some NT nurses and midwives would appreciate meaningful financial incentives to come to the NT such as return airfares, and assistance in costs associated with living in the NT such as mortgage assistance, and salary sacrifice opportunities. Comments by long-term staff particularly referred to the perceived preferential treatment towards short-term agency staff, and other health professionals who receive greater incentives and higher wages. A small study on factors that would help retain experienced critical care nurses found that flexible working conditions, meaningful financial service rewards, and organizational respect were the most significant (Alspach 2007). Management also came under scrutiny in the comments. It is unclear whether these comments refer to vertical violence mentioned above or whether they refer to a lack of understanding regarding what is important to nurses and midwives in the workplace. Research has shown that organizational factors that influenced nurses to leave were not acted upon by nurse executives, partly because the nurse executives were not alert to the reasons nurses were leaving the profession (O'Brien-Pallas et al. 2006).

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7. SUMMARY AND RECOMMENDATIONS

The two major drivers underlying this study have been a global shortage of trained nursing staff and the remoteness of the NT. The first means that nurses and midwives are in a buyers' market – they can readily get jobs elsewhere if dissatisfied. The second is that nursing professionals not only have to be enticed to work at nursing as against other professions but, unlike in large urban centres, must also be enticed to come to the NT.

It should be said that some elements of this study deal with perennial issues: relative isolation has always made the NT a difficult place to recruit and retain nursing professionals. The novel factor is the extent of the increasing demand and diminishing supply, at least of Australian-qualified nurses and midwives.

In the past the high mobility of nurses and midwives has been dampened by successful recruitment of a group of nursing professionals who have stayed and become embedded in the society. Many of these are now retiring and the majority of those who now fill their jobs appear to be either travellers or older nurses whose principal place of residence is outside the Territory. There is also an increasing number of nursing professionals being recruited from overseas. The result is a workforce with a relatively high turnover, though the annual rate of turnover has declined, and the prospect of substantial shortfalls in the coming decade. Costs of recruitment, already high, are likely to increase, institutional memory dissipate and patient care be at risk of decline.

The global nurse shortage and relative isolation of the NT affect both the processes described in this report, recruitment and retention, which need to be managed if the standard of nursing care and midwifery is to be maintained in the NT. However they are largely driven by different motivations and mostly require different management approaches. Recommendations are therefore in two parts.

RECRUITMENT

1. Recruitment campaigns should emphasise the features of the NT that make it a pleasant place to live and raise a family.
2. Target potential employees who already have family living here. If return airfares are provided to employees from outside the NT, ensure those living in the NT are provided with benefits of equivalent value.
3. Tailor recruitment to attract nurses/midwives who are likely to stay in the NT for extended periods, possibly through a screening survey. Different strategies should be executed to maximise the chances of hiring the right staff for different areas (e.g. hospital, remote).
4. Recruitment to remote areas should be honest about both the high demands and the need for resilience. Working as a nurse in a remote area has many advantages but it

is not a tourist experience and if sold as such, will attract mostly short-term employees, who are likely to leave disappointed and dispirited.

5. Put in place protocols to ease difficulties in finding accommodation upon arrival in housing-limited locations. This may include the purchase and rental of government housing stock, partnerships with real estate agents to help people find places to stay or initial rental assistance (although this will need to be managed so that long-term employees are not penalised). If housing is purchased, rents should be fed back into the maintenance of properties. Recruits from overseas with temporary visas should be given special treatment since Foreign Investment Review Board rules limit purchase opportunities.
6. Provide an information package facilitating settlement of nursing professionals into the community, including a map and information about available services (childcare, healthcare, public transport, etc.). Electronic links could be attached to communication with the employee before they arrive, particularly for nurses/midwives recruited abroad.
7. Monitor the impacts of recruitment interventions to avoid and correct perverse consequences and test their cost-effectiveness. In particular, ensure records of employment and employment history record recruitment-related incentives or employment conditions. On recruitment include an entry interview on reasons to work in the NT.
8. Create an online 'virtual community' for past, present and future NT nurses which lets them interact with each other and so reduce the sense of isolation. While this happens informally, it could also help the Department monitor currents of opinion and make it easier for nurses to find a compatible community with which to interact.
9. Form partnerships with other state and territory health departments and with intra-state agencies to help 'manage' the mobility of nurses/midwives collaboratively. There is always going to be an element of the workforce who wish to be mobile. Partnerships with other health agencies may assist mobility and reduce recruitment transaction costs. Recruitment into one system could therefore be the equivalent of recruitment into a network of systems. Partnerships with intrastate/interstate health services will also provide short-term strategic support, relief and capacity building.

RETENTION

Higher retention rates should result partly from an appropriate recruitment policy. However the research illustrated a number of issues that should improve retention of those who have come to the NT. These relate primarily to contract management and training, both for managers and employees. Recommendations that follow from our results are:

10. Institute management training for nurse managers. Training for nursing and midwifery does not currently include training for personnel management, which is vital in an area as complex as nursing. Most nurse managers do an excellent job but increasing expertise and strategies in this area could be a useful investment. If well integrated into the system, the opportunities for management training could make the prospect of working in the NT more attractive.
11. Institute a system of flexible contracts, with appropriate monitoring of responses. While institution of the two year contract has increased retention until the end of the contract, it has resulted in a sudden turnover at that time. Other contracting strategies may have different perverse effects that can only be detected through ongoing analysis of workforce statistics. Alternatives could be:
 - a. Contracts that run for successive 3 month periods in a 'placement' approach, with appropriate 'down-time' between placements. Although this will have the disadvantage of localised turnover, the nurses/midwives will gain experience from several workplaces/locations and may reduce risk of 'burnout'.
 - b. Contracts with the option of automatic extensions to reduce administration and instability.
 - c. Permanent part-time contracts, job sharing and other flexible employment options.
12. Examine ways to reduce and balance workloads to reduce burnout. Two of the principal work-related reasons for leaving were related to stress from too much work. While this is a perennial problem in nursing everywhere, benchmarking against other nursing and midwifery workplaces would be a valuable start.
13. For overseas-qualified nurses/midwives, institute a skills check at the commencement of their employment to identify gaps (if any) and then another one six months later. Also provide ongoing clinical support, assistance with transition to the Australian healthcare system and standards of professional nursing and support to help integration into the community.
14. Early and comprehensive training in Indigenous nursing/midwifery in a Northern Territory context. An average cost of recruitment-related training of only \$700 is extraordinarily low. One area mentioned repeatedly as a need is training in how to cater to the special needs of Indigenous patients. This applies for all nurses and midwives but particularly those qualified overseas. A cultural component covering communication with the Australian and Indigenous Australian peers and patients could be included in the Charles Darwin University bridging program. A similar program needs to be initiated for Australian-qualified nurses and midwives.

15. Training should extend to other forms of professional development through the establishment of reserved training periods. Performance of managers and staff should be assessed partly on the basis of compliance with training provisions.
16. Underwriting the bridging program (costs \$17,000 for 6 months) will enhance retention of nurses/midwives from poor countries for whom the initial up-front cost is prohibitive.
17. Commission research to explore ways of embedding nurses/midwives in the community. The strong connection between length of stay and attachment to the community warrants a management response that extends beyond the workplace. Relatively small investments in supporting nurses/midwives outside the workplace and maximising their opportunities to become connected to the community, especially soon after they arrive, will increase the chances of long-term retention.
18. Determine the cost of turnover at the work or unit level, to assess the impact on branch budgets, and of burn-out, particularly in remote communities. Such studies should look beyond the administrative costs measured in this study to the impacts on quality and cost of health care that arise from high nurse/midwife turnover.
19. Make registration/enrolment with the Nurse and Midwifery Board of the Northern Territory conditional on completion of a minimal dataset to be made available for workforce analysis. Multiple incomplete sources of workforce data inhibit early detection of and timely response to trends and lower health care outcomes.
20. Repeat aspects of the research in three years' time to identify changes in turnover, impact of interventions and identify further areas for work.

8. APPENDIX

NURSE AND MIDWIFE MOBILITY SURVEY 2007

The motivational questions of the questionnaire below, to be answered on a scale of 1–5, are accompanied by a note on the frequency with which issues were raised during interviews with 103 nurses and midwives across the sector in the Northern Territory (all employment classes grouped). The questions were initially based on surveys used for dental professionals and engineers as well as those proposed for accountants. There is a special section for overseas-qualified nurses and midwives.

The motivational questions are followed by demographic questions.

The survey was sent to nurses and midwives through the registration board and via email. The existence of the survey was also notified through newsletters etc.

The survey has the following introduction:

Northern Territory Nurse and Midwife Mobility Survey 2007

This is a mobility survey conducted by Charles Darwin University with the support of the NT Department of Health and Families. The study has the approval of the CDU Human Research Ethics Committee. The questionnaires are being distributed by the Nursing and Midwifery Board of the Northern Territory so respondents cannot be identified. All information collected through this survey is confidential, and only group data will be published.

This survey will take 15–20 mins. This survey may reach you by both on paper via the post and by email, to be filled in electronically. Please fill it in only once, by whichever means suits you best. It is not possible to return to the web-based version of the survey once it is closed, so you should aim to complete it in one sitting.

Please indicate the importance of the factors using the following scale:

1	2	3	4	5	
Not at all important	Not important	Neutral	Important	Very important	Does not apply

Are you working, or have you worked in the NT in the past ten years as a nurse or midwife?

☐ Yes

☐ No

If you ticked No please do not fill out this survey.

Factors influencing your decision to come to the NT

How important were the following when deciding to move to the NT or, for those who previously lived in the NT, in choosing to return?

Work-related issues

Questions	Not at all important	Not important	Neutral	Important	Very important	Does not apply
	1	2	3	4	5	
Active recruitment programs offering opportunities for nurses in the NT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Attraction of tax benefits associated with remote location	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expectation of an opportunity to use a wide range of skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expectation of job availability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financial incentives (better salary/wages)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opportunities for professional development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opportunity for working holiday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opportunity to work alongside experienced nurses and midwives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opportunity to work in clinics with good facilities and equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opportunity to work with Indigenous people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Positive prior work experience in the NT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prospect of career advancement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reputation as a good place to work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Satisfaction with providing an important service in an area of need	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workplace benefits (e.g. return airfare to place of origin, subsidised housing)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reasons for coming: work-related issues cont.

Questions	Not at all important	Not important	Neutral	Important	Very important	Does not apply
	1	2	3	4	5	
<i>If your initial nurse training was done overseas, we would appreciate your response to the following extra questions</i>						
NT Government nomination for temporary or permanent residency in NT (employment not a pre-condition of migration)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Offer of NT employer-sponsored application for permanent residency in Australia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Offer of NT employer-sponsored application for temporary residency in Australia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opportunity for employment under a Working Holiday Maker visa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pre-arrival information to prepare me to work as a nurse in the NT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prospect of permanent residency and citizenship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Visa application turnover in NT quicker than in other states	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Factors influencing your decision to come to the NT (cont.)***Social issues***

Questions	Not at all important	Not important	Neutral	Important	Very important	Does not apply
	1	2	3	4	5	
Allure of the tropics/desert	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Attraction of the natural environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Attraction of the NT lifestyle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Better work/life balance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cost of living in the NT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Desire to leave my previous place of residence/ opportunities for a new start	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Educational opportunities or facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Familiarity with the NT or similar environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Family and/or social networks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Multicultural society	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opportunities for new experiences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opportunity to experience Indigenous culture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perception that the NT is a good place to raise children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Positive NT holiday experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work or career opportunities for partner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reasons for coming: Social issues cont.

Questions	Not at all important	Not important	Neutral	Important	Very important	Does not apply
	1	2	3	4	5	
<i>If your initial training was done overseas, we would appreciate your response to the following extra questions</i>						
Join family member(s)/partner settled in NT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provide better future for myself and family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Others factors that persuaded you to move to the Northern Territory:

Factors influencing your decision to stay in the NT

How important have the following been in relation to staying in the NT?

Questions	Not at all important	Not important	Neutral	Important	Very important	Does not apply
	1	2	3	4	5	
Ability to negotiate suitable employment contracts (e.g. higher paying shifts, flexible shifts, family-friendly workplace)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clinical variety and challenge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contributing to Indigenous health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Family and/or social networks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Natural environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No reason to leave or to move	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NT lifestyle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opportunities for professional development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opportunity to be involved in governance or leadership activities (e.g. representing professional bodies)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opportunity to work in remote locations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personal relationships with staff and patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sense of community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sense of professional independence and responsibility (autonomy)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Size of city/town where living	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Support from other nurses (including Associations)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workplace benefits (e.g. return airfare to place of origin, subsidised housing)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reasons for staying, cont.

Questions	Not at all important 1	Not important 2	Neutral 3	Important 4	Very important 5	Does not apply
<i>If your initial training was done overseas, we would appreciate your response to the following extra questions</i>						
Able to support family overseas financially	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Job security better than at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NT employment and/or residence conditions of my current visa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prospect of permanent residence and/or citizenship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What other factors do/did you enjoy about living and working as a nurse/midwife in the Northern Territory? <div style="border: 1px solid black; height: 100px; width: 100%; margin-top: 10px;"></div>						

Factors influencing your decision to leave the NT workforce

Are you no longer working in the NT or are planning to leave the NT workforce within the next twelve months?

☐ Yes

☐ No

If 'yes' how important have the following been in relation to your decision to leave the NT?

Work-related issues

Questions	Not at all important	Not important	Neutral	Important	Very important	Does not apply
	1	2	3	4	5	
Career opportunities elsewhere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Completed employment contract period	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Difficulties with working in remote communities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expectation of work experience did not match reality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High administrative load (including recruitment and training)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of flexibility in working hours/leave	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of support from management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Language barriers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Limited opportunity for career progression	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Limited opportunity for professional development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not given time to take advantage of professional development opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nurse/doctor relationships	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reasons for leaving: Work-related issues (cont.)

Questions	Not at all impor-	Not important	Neutral	Important	Very important	Does not apply
	1	2	3	4	5	
Plans to undertake further study	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Poor employer-provided housing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety issues in work environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Skills not appreciated/valued	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Slow rate of innovation in work practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stressful work environment (burnout)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uncertainty about contract extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unreasonable workload	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>If your initial training was done overseas, we would appreciate your response to the following extra questions</i>						
Minimum employment contract and/or residence requirements in NT imposed by my visa met	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overseas-gained skills not fully appreciated and utilised	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overseas-qualified nurses and/or midwives treated with reserve by management and colleagues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Factors influencing your decision to leave the NT workforce (cont.)***Social issues***

Questions	Not at all important	Not important	Neutral	Important	Very important	Does not apply
	1	2	3	4	5	
Climate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cost of living in the NT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Desire for change in lifestyle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dislike NT lifestyle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Educational opportunities or facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Family and/or social networks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Further travel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of specialist health facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Limited recreational activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Problems with housing (e.g. availability, quality, costs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public antisocial behaviour	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Racist attitudes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Retirement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety issues outside the workplace	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Small town syndrome (e.g. poor consumer choice, limited social opportunities)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The 'distance from everywhere' factor (e.g. expense/inconvenience of isolation, quality of supermarket goods)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unforeseen family issues (e.g. poor health, relationship issues)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work or career opportunities for partner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other Issues (please specify)

Have you got suggestions for ways to persuade people to stay longer in the NT?

About you

1. **Sex** ☐ Female ☐ Male
2. **Year of birth** 19 __ __
3. **Where were you born?** ☐ In the NT
☐ Elsewhere in Australia
☐ Overseas, please name country _____
4. **Where did you consider to be home when you were in high school (or the greatest part of Years 8 – 12)?**
☐ NT ☐ Other State or Territory – urban area
☐ Overseas _____ ☐ Other State or Territory – rural area
5. **Where is your usual place of residence now?**
☐ Darwin ☐ Remote Top End
☐ Alice Springs ☐ Remote Centre
☐ Regional town (Katherine, Nhulunbuy, Tennant Creek) ☐ Outside the NT (please specify) _____
6. **In total, how long have you lived (did you live) in the NT? _____ years**
7. **In total how many times have you lived (did you live) in the NT? _____ times**
8. **Most recently, with whom did you move to the NT? (*Tick all that apply*)**
☐ Husband, wife, partner or de facto ☐ Other family
☐ Children at primary school or younger ☐ Friends/other adults
☐ Children at high school ☐ I moved alone
☐ Children who had left high school ☐ I have always lived in the NT
☐ Parents ☐ Other (please specify) _____
9. **In the NT what is / was your housing situation?**
☐ I own / owned my home outright ☐ I am (was) purchasing my home
☐ I rent / rented my home ☐ I occupy (occupied) my home rent free
☐ Other (please specify) _____

10. Who currently lives in the same household as you? (Tick all that apply)

- | | |
|--|--|
| <input type="checkbox"/> Husband, wife, partner or de facto | <input type="checkbox"/> Other family |
| <input type="checkbox"/> Children at primary school or younger | <input type="checkbox"/> Friends/other adults |
| <input type="checkbox"/> Children at high school | <input type="checkbox"/> I moved alone |
| <input type="checkbox"/> Children who had left high school | <input type="checkbox"/> I have always lived in the NT |
| <input type="checkbox"/> Parents | |

11. Are/were you involved in any of the following activities in the NT? (Tick all that apply)

- | | |
|---|--|
| <input type="checkbox"/> Professional groups (business associations, professional associations or boards) | <input type="checkbox"/> Religious groups |
| <input type="checkbox"/> Cultural groups (e.g. music, dance, literature) | <input type="checkbox"/> Social groups (e.g. scouts, Rotary) |
| <input type="checkbox"/> School support groups | <input type="checkbox"/> Sports clubs |
| <input type="checkbox"/> None | Other (please specify) _____ |

12. Medicare address. Medicare change of address information is used as an indication of interstate population movement. We are trying to help the NT Treasury learn more about the accuracy of these statistics.

For personal/family Medicare correspondence and claims, is your registered address with Medicare?

- | | |
|--|---|
| <input type="checkbox"/> An address in the NT | <input type="checkbox"/> Unsure |
| <input type="checkbox"/> An address outside the NT | <input type="checkbox"/> Not registered with Medicare |

Work and Training Characteristics

1. In which area of nursing are you working? (Tick all that apply)

- | | |
|---|--|
| <input type="checkbox"/> Critical care/emergency | <input type="checkbox"/> Aged care |
| <input type="checkbox"/> Mixed medical/surgical | <input type="checkbox"/> Rehabilitation-disability |
| <input type="checkbox"/> Medical nursing | <input type="checkbox"/> Mental Health |
| <input type="checkbox"/> Surgical nursing | <input type="checkbox"/> Family & child health |
| <input type="checkbox"/> Perioperative | <input type="checkbox"/> Community Health (urban) |
| <input type="checkbox"/> Midwifery | <input type="checkbox"/> Community Health (remote) |
| <input type="checkbox"/> Other (please specify) _____ | |

2. In which area of nursing are you qualified? (Tick all that apply)

- | | |
|---|--|
| <input type="checkbox"/> Critical care/emergency | <input type="checkbox"/> Aged care |
| <input type="checkbox"/> Mixed medical/surgical | <input type="checkbox"/> Rehabilitation-disability |
| <input type="checkbox"/> Medical nursing | <input type="checkbox"/> Mental Health |
| <input type="checkbox"/> Surgical nursing | <input type="checkbox"/> Family & child health |
| <input type="checkbox"/> Perioperative | <input type="checkbox"/> Community Health (urban) |
| <input type="checkbox"/> Midwifery | <input type="checkbox"/> Community Health (remote) |
| <input type="checkbox"/> Other (please specify) _____ | |

3. Where did you first train to be a nurse?

- | | |
|---|--|
| <input type="checkbox"/> Northern Territory | <input type="checkbox"/> South Australia |
| <input type="checkbox"/> ACT | <input type="checkbox"/> Tasmania |
| <input type="checkbox"/> New South Wales | <input type="checkbox"/> Victoria |
| <input type="checkbox"/> Queensland | <input type="checkbox"/> Western Australia |
| <input type="checkbox"/> Other. If overseas, which country? _____ | |

4. In which year did you gain your first nursing qualification? ____

5. In total, how many years have you worked in the NT? ____

6. Choose the option that best describes your current employment in the NT.

- ☐ Not currently employed ☐ Employed – Permanent
- ☐ Employed - Casual ☐ Employed – Fixed term or temporary contract

7. In the last 12 months have you had multiple contracts (including those held simultaneously)?

- ☐ yes ☐ no

8. How long did it take before you felt confident to work at full capacity in your current work area in the NT?

- ☐ 1 month ☐ 3–6 months
- ☐ 2 months ☐ More than 6 months (please specify) ____
- ☐ 3 months ☐ Not applicable – not working as a nurse/midwife in NT

9. Did the departure of other nurses from your work area have any impact?

- ☐ yes ☐ no

If yes, what was the impact?

10. What benefits are provided by your employer under your work agreement/contract?

- ☐ Accommodation ☐ Utility services (e.g. phone, power)
- ☐ Subsidised education (self or family) ☐ Tax incentives
- ☐ Return flight to place of origin ☐ None

Other (please specify) _____

Residence Status

1. Residence status

Are you an Australian citizen? ☐ Yes (Please, go to question 4) ☐ No

2. What is your current residence status in Australia? Visa subclass numbers are provided as a guide.

- ☐ Australian permanent resident (136 visa subclass – skilled Independent)
- ☐ Australian permanent resident (family sponsored e.g. 139 visa subclass – skilled–Designated Area Sponsored SDAS)
- ☐ Australian permanent resident (employer sponsorship or State/Territory Government nomination e.g. 137 visa subclass – STNI, 857 visa subclass – RSMS, 855 visa subclass – Labour Agreement)
- ☐ Temporary resident (employer sponsorship or State/Territory Government nomination e.g. 457 visa subclass, 495 visa subclass – Skilled Independent Regional (Provisional) SIR)
- ☐ Temporary resident (family-sponsored e.g. 496, 309, 820 visa subclasses)
- ☐ Working Holiday Maker (417 visa sub-class)
- ☐ New Zealand citizen (please also tick any other boxes here that might apply)
- ☐ Other, please specify _____

3. How many months have you spent in Australia under your current visa?

Months _____ ☐ Not applicable

4. Was your *initial* training overseas?

- ☐ Yes. ☐ No. (Please, go to 'General' section)

5 Have you worked interstate as a nurse or midwife immediately before moving to the NT to take up your current job?

- ☐ Yes ☐ No ☐ Not applicable (e.g. worked interstate immediately before moving to the NT but not working as a nurse here)

6 Have you previously held an Australian work visa that required you to work and/or live in the NT (e.g. 457 visa subclass, 857 visa subclass – RSMS)?

- ☐ Yes ☐ No ☐ Not applicable

7 If your *initial* training was overseas, have you undertaken post-graduate nursing and/or midwifery training in Australia?

- ☐ Yes ☐ No

General

Please use the space below if you wish to add additional comments about living and working in the NT. We find that personal stories about why people move can bring the statistics to life and help greatly with interpretation of the numbers.

1. Additional Comments:



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There is a global shortage of nursing professionals. It is particularly tight for remote places like the Northern Territory, Australia. This report looks at the demographic profile of the Territory's nurses and midwives, how that has changed in the last few decades and explores prospects for the future. The report also explores why nursing professionals come to the Northern Territory, why they stay and why some leave. The drivers of international migration are investigated as well as some of the costs of nursing turnover to the Territory economy. Twenty recommendations are made to improve retention rates.

