

Complete citation: Eley, Robert and Hegney, Desley and Buikstra, Elizabeth and Fallon, Tony and Plank, Ashley and Parker, Victoria (2007). Aged care nursing in Queensland – the nurses' view. *Journal of Clinical Nursing*. ISSN 0962-1067.

This is the final manuscript of the paper at:  
<http://www.blackwellpublishing.com/journal.asp?ref=0962-1067&site=1>

## **Aged care nursing in Queensland – the nurses' view**

### **Queensland aged care nurses workforce**

**Robert Eley** BSc (Hons), MSc, PhD, MIBiol, CBiol, Senior Research Fellow, Centre for Rural and Remote Area Health, University of Southern Queensland, Toowoomba.

[eleyr@usq.edu.au](mailto:eleyr@usq.edu.au), tel. +61 7 4631 5477, fax +61 7 4631 5452

**\*Desley Hegney** RN, BA (Hons), DNE, PhD, FRCNA, FCN (NSW), Director, Centre for Rural and Remote Area Health, Faculty of Sciences, University of Southern Queensland, Toowoomba and University of Queensland, Brisbane. [hegney@uq.edu.au](mailto:hegney@uq.edu.au)  
tel. +61 7 4631 5456, fax +61 7 4631 5452

**Elizabeth Buikstra** BSc (Hons) PhD, Research Fellow, Centre for Rural and Remote Area Health, University of Southern Queensland, Toowoomba,

[buikstra@usq.edu.au](mailto:buikstra@usq.edu.au), tel. +61 7 4631 5443, fax +61 7 4631 5452

**Tony Fallon** BSc (Hons) PhD, Research Fellow, Centre for Rural and Remote Area Health, University of Southern Queensland, Toowoomba

[fallon@usq.edu.au](mailto:fallon@usq.edu.au), tel. +61 7 4631 5455, fax +61 7 4631 5452

**Ashley Plank** Dip.T, BSc, MSc (Hons), PhD, Statistics Coordinator SimStat, Department of Mathematics and Computing, Faculty of Sciences, University of Southern Queensland, Toowoomba.

[plank@usq.edu.au](mailto:plank@usq.edu.au), tel. +61 7 4631 5538, fax +61 7 4631 5452

**Victoria Parker** RN, BHSc, Grad. Dip. Critical Care, MN, MRCNA, Lecturer, Department of Nursing, University of Southern Queensland, Toowoomba, Australia.

[parkerv@usq.edu.au](mailto:parkerv@usq.edu.au) tel +61 7 4631 2377, fax +61 7 4631 5452

**\*Address for correspondence:**

Professor Desley Hegney  
Centre for Rural and Remote Area Health  
University of Southern Queensland  
PO Darling Heights, Queensland 4350

Funding for this study was provided by the Queensland Nurses Union

## **Aged care nursing in Queensland – the nurses' view**

### **ABSTRACT**

**Aims and objectives:** Through comparison of two studies undertaken three years apart the opinions of nurses working in aged care facilities in Queensland were determined. Results will support policy planning for the Queensland Nurses Union.

**Background:** An ageing population in Australia is placing increased demands on residential aged care facilities. In Queensland the national situation is exacerbated by an influx of retirees from other states and territories. The ongoing problem of shortages of nurses in the workforce may be addressed by gaining further insight into the nurses' own views of their conditions and experiences.

**Methods:** 1000 nurses working in public and privately owned residential aged care facilities were surveyed by postal questionnaire in 2004. Results were compared with data collected in an identical study in 2001.

**Results:** Respondents offered their opinions on working hours and conditions, professional development and experiences in nursing. The predominately female aged care nursing workforce is aging. Reported work place violence has increased substantially since 2001. Some improvements are reported in staff numbers, skill mix and workplace policies. Nurses expressed very serious concerns about pay, workload, stress, physical and emotional demands and staff morale.

**Conclusion:** Working conditions for nurses in the residential aged care sector in Queensland must be addressed in order to retain the current nurses and to encourage new nurses to replace those that retire.

**Relevance to clinical practice:** The findings of this study provide information not only for the Queensland Nurses Union but also policy makers and nurse managers both nationally and internationally on areas that need to be addressed to maintain the required workforce within the aged care sector.

**Word count: 4122**

**Key words:** Australia, nurses' roles, elder care, workforce issues

## **INTRODUCTION**

For the last five years Australia's population has been increasing annually at 1.2% and in June 2004 stood at 20.1 million (Australian Bureau of Statistics 2005). Two States, Western Australia (1.7%) and Queensland (2.1%), are experiencing population increases at rates above the national average. Queensland's population which was 3.37 million in 1996, and 4.0 million in January 2005, is expected to be between 4.7 and 5 million by 2021 and between 6 and 6.5 million by 2051 (Department of Primary Industries and Fisheries 2005).

Australia's population is also aging through a combined effect of sustained low levels of fertility and increasing life expectancy. The median age of the national population is rising by about 0.3 years per year (30.5 in 1984 to 36.4 in 2004) and nationally the number of persons aged 65 years and over now constitutes 13.0% of the population (Australian Bureau of Statistics 2005). From 1980 to 2000, the number of people in Queensland aged 85 years and over increased 179.8%, from 15,300 to 42,900, compared with a total population growth of 57.4% over the same period (Australian Bureau of Statistics 2005)

With the rise in age comes an increased demand for health services and assistance to older people in their daily living. These will be addressed in part by the services offered by residential aged care facilities and aged care community home care packages.

Of concern for the provision of health care to the elderly is not only the availability of home care and residential living but also that there is a sufficiently competent workforce. Planning for workforce requirements in the aged care sector requires

information about the current status and gaps in provision. In 2003 the Australian National Institute of Labour Studies (NILS) published a report entitled *Who Cares for the Elders* in which they compared workforce information from a variety of federal, state and independent sources (Healy & Richardson 2003). The study demonstrated that despite a large number of data sources reliable details of the aged care workforce are limited. A subsequent study by NILS provided national figures on workforce numbers, however no state/territory breakdown data were presented (Richardson & Martin 2004).

In 2001 the University of Southern Queensland (USQ) in conjunction with the Queensland Nurses' Union (QNU) undertook a survey of nurses. The survey was repeated in 2004. The studies demonstrated that the working conditions and experiences of nurses working in residential aged care facilities differed from those of nurses working in hospitals or community health (home care) (Hegney et al 2005). In this paper we look specifically within the aged care sector at the responses from the 2001 and 2004 studies of nurses. Nurses who work in non-government (for profit and not-for-profit – known in Australia as the private sector) facilities are compared with those who work in the government (known as the public sector) facilities.

## **AIMS**

The combined studies aimed to identify the factors impacting upon nursing work in residential aged care facilities and to use the results to inform strategic planning of the Queensland Nurses Union.

## **METHODS**

### **Sample and sampling design**

Both 2001 and 2004 studies involved a descriptive, self-reporting, postal survey of 1000 nurses in Queensland, Australia. On each occasion nurses to be surveyed were randomly selected from the QNU database of members. The selection criteria for

inclusion were employment in residential aged care and paid membership of the QNU during the year of each respective study.

### **The survey instrument**

The validated survey instrument used in 2001 is described in detail by Hegney, Plank & Parker (2003). In addition to background information about the respondents (age, education, ethnicity etc), sections in the questionnaire sought information on current employment (time in current job, sector of employment), working hours, working conditions (skill mix, workload, rostering practices and workplace violence), professional development (education and training) and experiences in nursing (perceptions of nursing, breaks from nursing).

In 2001 data were entered into SPSS manually. In 2004, instead of manual entry of the data, the questionnaire was formatted using the software program Verity Teleform Version 9 (Sunnyvale, California) as the platform for automated data entry. For the 2004 survey a few items from the 2001 questionnaire were reworded for clarity; two questions on nursing agency work were added and a question on work hours was divided into three. These modifications were pre-tested by independent experts. With only two exceptions questions (totalling 72 in 2001 and 77 in 2004) offered multiple choices requiring ticking or entering data into a box. There were two open questions.

In both 2001 and 2004 the survey packages containing the questionnaire, plain language statement, covering letter containing details about the research and reply-paid envelope were posted to participants by the QNU. Two weeks after the initial mail-out a reminder package was sent to non-respondents. All surveys were coded and the research team was not able to link the codes to individual members of the QNU. Similarly, the QNU was only provided with de-identified data.

## **Data analysis**

Quantitative data from 2001 and 2004 were analysed for differences between the nurses employed in the public and private aged care facilities within year and within each sector between years. Descriptive and inferential statistical tools were used as appropriate to the scale of measurement involved. Cross tabulations with chi square tests for significance were used for dichotomous and categorical variables and the t-statistic for independent groups for continuous variables. A threshold level of 5% was used for significance.

## **Ethics**

The study was approved by the Human Research and Ethics Committee of the University of Southern Queensland, Toowoomba, Australia.

## **RESULTS**

### **Response rate**

Of the 1000 participants to each survey 424 (42.4%) responded in 2001 and 405 (40.5%) responded in 2004.

### **Job classification**

Nurses were classified as assistants in nursing (AIN), enrolled nurses (EN) and registered nurses (RN levels 1-5). There were no differences in the distribution of job of the respondents across sectors for either year or within sector between years (Table 1). **Insert Table 1 here**

### **Age**

The mean age of all respondents in 2004 was 49.7 years; a significant ( $p < .001$ ) rise of 1.7 years since 2001. This rise is attributable to the fact that in 2004 when compared to

2001 more private aged care sector nurses were 50 or over and fewer aged 40 - 49. ( $p = .027$ ). The same, although non-significant, trend occurred in the public sector (Table 1).

### **Time in current nursing job**

Almost 60% of respondents had been in their current nursing job for more than 5 years and over 20% more than 15 years. There were no differences between sectors within years or within sectors between years (Table 1).

### **Nurses' status of employment**

In both 2001 and 2004, nurses in public aged care facilities were more likely to be employed permanently full-time and less likely to be employed permanently part time compared to those private facilities. In both years publicly employed nurses were more likely than privately employed nurses to work all three shifts or be day shift workers (Table 1). There were no differences within sectors over the two surveys.

### **Complete work in the available work time**

All nurses viewed their ability to complete work in the available time in the middle of the five point Likert scale; *never* (= 1), *seldom* (=2), *sometimes* (=3), *mostly* (=4) and *always* (= 5). There was a non significant trend ( $p = .051$ ) for public sector nurses to be able to complete their work on time in 2004 than their colleagues in 2001. Moreover in 2004 nurses in public facilities were more able to complete their work on time than those in private facilities (Table 2).

### **Level of staffing to cover work needs**

Overall nurses were dissatisfied with the level of staffing and only rated it between *seldom* (2) and *sometimes* (3) on a five point Likert scale that ranged from *never* (= 1)



to *always* (= 5) (Table 2). There was some improvement since 2001 in both facilities although this was only significant in the private sector. **Insert Table 2 here**

### **Sufficiency of staff skill mix to meet patient needs**

Opinions on staff skill mix did not differ between sectors within year, however opinions did differ across the years. In 2004, nurses from both public and private facilities stated that skill mix met patient needs better than it did in 2001 (Table 2).

### **Reasons for the inadequacy of staff skill mix**

When asked for the reasons for skill inadequacy nurses proffered *too many inexperienced staff, too few experienced staff* and *lack of funding* as the principle reasons. Private sector nurses in 2004 also believed that *too much use of casual staff* and *employer policy on skill mix* were contributory factors.

### **Effectiveness of workload issues committees and process**

Private sector nurses in 2001 had a greater belief in the effectiveness of processes to deal with workload issues than they did in 2004 (Table 2). A similar non significant trend occurred in the public sector. In both sectors and in both years the effectiveness of these committees and processes was at best considered to be *sometimes* effective.

### **Workplace violence**

Nurses were asked if they had been subjected to workplace violence in the last three months. Violence was defined to include aggression, harassment and bullying. There was no difference between sectors within years (Table 3). Violence was reported by more public sector nurses in 2004 (68%) than in 2001 (49%,  $p = .037$ ), with a similar but non-significant increasing trend in the private sector (56 versus 49%,  $p = .072$ ).

### **Sources of workplace abuse**

As indicated in Table 3, clients/patients were the highest source of abuse with more than two thirds of nurses who reported abuse indicating this as a source. The incidence had not changed between or within sector across the years.

Other sources of violence had changed. In 2004 public sector nurses reported more abuse by other nurses and other staff than they did in 2001. Similarly private sector nurses more abuse by other nurses, visitors/relatives, nurse managers and other staff in 2004 than they did in 2001. **Insert Table 3 here**

### **Workplace policies to deal with aggressive behaviour and abuse**

In 2004 87% of all nurses stated that their workplace had policies to deal with violence from other staff. The figures on existence of policies had increased by about 5% in both sectors since 2001. There was no difference between nurses employed in the two different sectors ( $p = .957$  for 2001 and  $p = .559$  for 2004).

In both years 10-15% of nurses did not know whether policies existed or not. Slightly over 50% of nurses noted that policies were *mostly or always/nearly always* adequate on a five point Likert scale of *never, seldom, sometimes, mostly and always/nearly always*.

With respect to policies dealing with violence from patients/clients/visitors the proportions of nurses who stated that there were policies in place were 75.7% and 75.4% for publicly employed nurses in 2001 and 2004, respectively and 71.3% and 74.9% for the privately employed nurses. There was no difference between sectors with year ( $p = .540$  for 2001 and  $p = .407$  for 2004). The 3.6% increase in the private sector responses between 2001 and 2004 was significant ( $p < .001$ ). The adequacy of this policy was *mostly or always/nearly always* adequate with no significant differences either between sectors or within sector across years ( $p > .078$  for all comparisons).

### **Access to training**

In 2001 84.3% of publicly employed nurses and 89.9% of privately employed nurses reported that they had access to training/professional development through their workplace. The figures for 2004 were 83.9% and 88.0%. No significant differences were detected across years or between the public and private sectors ( $p > .170$  for all comparisons).

### **Barriers that prevent nurses from undertake training/education**

Despite training/professional development opportunities being offered nurses indicated that there were barriers to their participation. As shown in Table 4 lack of time and the fees involved were the reasons given by the highest proportion of respondents. Distance to training, availability of relief staff and leave issues (cost or permission) were also prominent. In 2004, smaller proportions of nurse reported barriers than in 2001 and this reduction was significant for private sector nurses for most of the barriers to training. **Insert Table 4 here**

### **Current and expected years in nursing**

Over 60% of respondents had been nursing for at least 15 years. There were no significant differences between sectors within years or within sectors across years. About 15% of nurses were unsure how long they would remain in nursing. Of those that were sure 44% in 2001 and 40% in 2004 expected to be in nursing for a further 10 or more years. No differences were detected between or across years (Table 5).

**Insert Table 5 here**

### **Experiences in nursing**

Nurses were asked to rank a number of statements as being *extremely true* (= 1) through to *extremely false* (= 7) with 4 being a neutral (i.e. neither true nor false).

Results are given in Table 6. Overall nurses believed that nursing was emotionally challenging, physically demanding and highly stressful with a heavy workload and marginal rewards of status, pay and career prospects. Although nursing was seen to be valued by the health system and particularly the community, staff morale was considered to be deteriorating.

Comparing sectors three items were significant; in 2001 publicly employed nurses believed their work hours were more convenient and their career prospect better than those employed in the private sector. In 2004 public sector nurses believed work load was heavier than did nurses in the private sector.

Two within sectors significant differences were found for publicly employed nurses. In 2004 nurses in public facilities perceived workload as being even heavier than they did in 2001. In 2004 public sector nurses indicated that their career prospects had deteriorated since 2001 and were the same as the private sector nurses. There were no difference between 2001 and 2004 for any of the experiences for private sector nurses. **Insert Table 6 here**

## **DISCUSSION**

### **Limitations to study**

The percentage of respondents from the public sector (16.5% and 14% for 2001 and 2004, respectively) is slightly higher than might have been expected as the number of public aged care facilities is only 8% of all aged care facilities in Queensland (Richardson & Martin 2004). The small number of public facilities means that there is less power to detect differences in the public nurse sample than in the larger sub-sample of privately employed nurses.

The proportion of assistants in nursing working in aged care who are members of the QNU in 2006 is 52% which is 10% less than the 2004 national nursing workforce average (Richardson and Martin 2004). The assistants in nursing who responded to this study in 2001 were 40% and in 2004 44%. Consequently, although the study is quite representative of the QNU membership this cadre of nurse are under-represented when compared to the total age care workforce.

The number of aged care nurses working part time (nationally about 66%, this study 77%) and full time (nationally 11%, this study 16%) are slightly higher than National Institute of Labour Studies figures (Richardson & Martin 2004). In that study casual and contract staff accounted for 19% of the aged care nursing workforce as compared to figures less than 10% in this study. The results therefore suggest that contract and casual staff particularly in the private sector may either be under-represented in the members' database or chose not to respond to the survey.

Despite these small limitations, when age and other demographic details of respondents are compared with the QNU member database the results from the two study are deemed to be largely representative of the QNU workforce. Furthermore as approximately 70% of nurses working Queensland are members of the Union the results paint a good picture a large proportion of the entire nursing workforce and thus will be of value to policy makers and nurse managers state-wide.

### **Response rate**

The response rate of 40.5% in 2004 compares to 42.4% for the 2001 study and is consistent with response rates for other recent similarly distributed surveys of nurses in Australia (Albert Research, 2004; Hegney *et al.* 2005; Stanton, Bartram and Gerreffa 2005; Yu 2005).

## **Age**

The aged care nursing workforce is ageing. In 2001 the Australian Bureau of Statistics estimated that 57% of aged care nurses were above 45 years of age (Richardson & Martin 2004) as compared to the 48% in our 2001 data set who were older than 50 years. By 2004 the proportion over 50 had risen to 58%. On average Queensland nurses in residential aged care are six years older than those employed in hospital or community health sectors (Hegney et al 2005). These data are consistent with those published by AIHW (Australian Institute of Health and Welfare 2005).

## **Employment**

Aged care workers are far more likely to work on a part time basis than the nurses from other sectors (Hegney *et al.* 2005). Within the aged care sector in Queensland nurses in the public facilities are twice as likely to be employed full time and on continuous or day shifts as nurses in the private sector. The part time employment on *other* shifts in the private sector demonstrates a greater degree of flexibility perhaps as a balance against lower remuneration in this sector.

## **Working conditions**

Both public and private residential aged care nurses consider their jobs to be poorly rewarded, with a heavy workload, physically demanding, emotionally challenging and stressful. Furthermore they report that they cannot complete their job to their satisfaction and are critical about their workload, staff numbers and staff skills mix. These data which have remained constant from 2001 to 2004 are largely consistent with the study of Richardson and Martin (2004) who found that over 50% of the aged care nurses in that study felt under pressure to work harder and were dissatisfied with their pay.

Additional comments were given by 134 aged care nurses in 2004. The highest number of comments (63, 47%) related to workload and the second highest number (30, 22%) mentioned that there was far too much paperwork involved in their daily activities.

This work situation is attributed by the nurses to employer policy on staffing with employment of too few experienced staff and too many casuals. These results support those of Richardson and Martin who reported that 75% of nurses and 65% of carers considered that they were unable to spend enough time with each resident (Richardson & Martin 2004). This situation may create a fall in job satisfaction which in turn can affect morale and retention of nurses in the profession.

It is encouraging to note that nurses in both public and private aged care facilities reported greater satisfaction with staff numbers and skill mix than they did in 2001. However there was deterioration in the proportion of private facility nurses who considered that workload issues were dealt with efficiently and this should be addressed.

In many of the parameters noted above nurses in the aged care sector reported more unfavourable conditions than did those in the hospital or community care sectors (Hegney et al. 2005). These other sectors may thus be seen to be preferential places of employment to some nurses. These results emphasise the importance in addressing the current situation if the future aged care work force is going to meet demands placed upon it.

## **Violence**

Our studies concur with others that there is a reported increase in workplace violence, although when compared to other sectors nurses in aged care were less likely to report

violence from visitors/relatives, doctors or nursing management (Hegney et al, 2005). In that study within the hospital and community health sectors privately employed nurses reported the lowest incidence in violence. Within the aged care sector the same albeit non-significant trend was found between public and private facilities with nurses in private facilities reporting less violence.

Of interest is that the public aged care sector nurses demonstrated a far greater increase in reporting violence since 2001 than did those in the private sector. It is possible that this is a reflection of the awareness campaigns such as 'zero tolerance to violence', promoted by Queensland Health. The source of abuse increased from other nurses and other staff in both public and private facilities from 2001 to 2004 and also by visitors and relatives upon private facility nurses.

In addition to the possibility of actual increase in violence these reported increases perpetrated by fellow employees may be a result of greater knowledge of workplace policies or of the wider definition of violence that includes bullying, verbal abuse and sexual harassment. Regardless of the reasons for the reported increase, this aspect of the work environment must be addressed. It is encouraging that in both public and private aged care facilities nurses were more likely to report the existence of policies to address violence in 2004 as compared to 2001. Concern must be expressed however for the considerable number of nurses (ranging from 8 to 19%) who continue to be unaware of whether such policies existed or not.

### **Training and education**

It would appear that training and professional development opportunities are available to many nurses working in aged care facilities, however they are often not able to take advantage of these. Time, cost of fees and lack of leave were frequently indicated as barriers. These results are consistent with the results of barriers to training in



information technology from a nationwide study of Australian nurses (Hegney et al 2006).

Nurses reported fewer barriers in 2004 than they did in 2001. In 2004 the Department of Health and Ageing announced that up to 15,750 personal care workers would be eligible for government support to upgrade their vocational education and training (Department of Health and Ageing 2004). This included training towards Certificate Level III or IV in aged care work up to an enrolled nurse qualification. It is possible that this training initiative influenced the response.

### **Time in nursing**

The figures for length of time in nursing and in their current job indicated that the retention of nurses in aged care facilities is relatively high. These data support those for other sectors of nursing that indicated although mobile within the profession and despite breaks usually for family reasons, nurses are retained in the profession (Hegney et al. 2005). Additional evidence comes from a national study commissioned by the Department of Health and Ageing that surveyed nurses who allowed their registration to elapse in 1999/2000. The major reason for departure was family commitments and over 50% of the nurses who had worked in aged care stated they would return with a preference for part-time work (Australian Centre for Evidence Based Residential Aged Care 2002).

In this study 28% of the nurses expected to leave nursing within 5 years. This was a higher figure than that given by nurses from the hospital and community health sectors (Hegney et al. 2005) and could be merely indicative of retirement of the more elderly nurses in the aged care sector. The only comparable national statistic is 29% to have left aged care employment in three years (Richardson & Martin 2004). Nurses in aged care were also more likely to have been employed for longer periods of time and to

have longer breaks; both factors affected by the older age cohort than in other sectors. Furthermore in the past there was no retraining/re-entry into the hospital sector and therefore if a nurse had a long break they usually could only get work in the aged care sector. This situation has now changed with the government training opportunities noted above and with some states offering retraining incentives as a major strategy to encourage nurses to return to work in all sectors.

### **Experiences in nursing**

The responses of the aged care nurses to statements related to work experiences suggest that there are some very serious issues to be addressed. For example publicly employed aged care nurses in 2004 considered workload to be heavier than they did in 2001 and that their career prospects were lower. As the workforce ages and subsequently retires replacements are essential and working conditions must be conducive to recruitment.

In this study aged care nurses have expressed very serious concerns about pay, workload, stress, physical and emotional demands and staff morale; none of which will aid recruitment. Furthermore these factors can affect retention. In a survey of registered and enrolled nurses who had left nursing in 2000, work hours, pay and staff shortages were the major work related reasons for leaving the profession (Australian Centre for Evidence Based Residential Aged Care 2002)

The aged care nurses do perceive their working environment to be well equipped and safe and for themselves to be valued by both the community and the health system. These are very positive aspects, however are unlikely to weigh very heavily against the concerns which if not addressed suggest that the work force in this sector will be under threat and with it the health of the Australian senior population.

It is interesting to note that despite criticism by nurses of many aspects of their working conditions the Australian nurses in Richardson and Martin (2004) study stated that they were quite satisfied with their job. A specific question on job satisfaction was not asked in the survey of Queensland nurses. Working opportunities are far greater now than they were when the predominantly female and soon to be retiring nurses joined the profession. It is suggested that job satisfaction of future generations of nurses may not outweigh negative aspects and will be reflected in recruitment and retention figures.

## **CONCLUSION**

Our results for nurses employed in aged care facilities in Queensland demonstrate that replacement staff for the aging work force is a major priority. Nurses in both public and private residential aged care sectors are far from satisfied with their employment conditions mainly due to staff numbers, skills and experience. Overall staff morale is declining and there are major complaints regarding pay and inability to spend enough time with residents/clients. Although some small improvement in working conditions have been seen since 2001 much more is needed to avert major staff shortages of nurse working in aged care in Queensland.

## **ACKNOWLEDGEMENTS.**

The project team would like to recognise the nurses who completed the survey and the Queensland Nurses Union for financial support.

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**Table 1. Job classification, age and employment characteristics of aged care nurses**

		Year of study			
		2001		2004	
		Public n (%)	Private n (%)	Public n* (**%)	Private n (%)
Total responses		70 (16.5)	354 (83.5)	57 (14.0)	348 (85.9)
Classification	AIN	26 (37.7)	135 (39.2)	24 (48.0)	149 (43.3)
	EN	13 (18.8)	41 (11.9)	10 (20.0)	43 (12.5)
	RN	28 (40.6)	162 (47.1)	16 (32.0)	149 (43.3)
	Other	2 (2.9)	6 (1.7)	0 (0)	3 (0.8)
Within year		p = .378		p = .121	
Public 2001 v 2004		p = .522			
Private 2001 v 2004		p = .533			
Age (years)	less than 30	0 (0.0)	10 (2.3)	1 (1.8)	13 (3.8)
	30 - 39	10 (15.2)	33 (9.6)	7 (12.3)	34 (9.8)
	40 - 49	28 (42.4)	132 (38.4) <sup>a</sup>	17 (29.8)	96 (27.7) <sup>a</sup>
	50 and above	28 (42.4)	169 (49.1) <sup>b</sup>	32 (56.1)	203 (58.7) <sup>b</sup>
Within year		p = .231		p = .805	
Public 2001 v 2004		p = .278			
Private 2001 v 2004		p = .027			
Years in position	less than 5	24 (34.3)	132 (37.5)	23 (40.4)	147 (42.2)
	5 - 14	23 (32.9)	147 (41.8)	21 (36.8)	123 (35.3)
	15 and above	23 (32.9)	73 (20.7)	13 (22.8)	78 (22.4)
Within year		p = .079		p = .963	
Public 2001 v 2004		p = .455			
Private 2001 v 2004		p = .214			
Employment	Full-time permanent	23 (33.0) <sup>a</sup>	60 (17.0) <sup>a</sup>	15 (28.3) <sup>b</sup>	47 (14.6) <sup>b</sup>
	Part-time permanent	38 (55.1) <sup>a</sup>	277 (78.7) <sup>a</sup>	33 (62.3) <sup>b</sup>	255 (79.4) <sup>b</sup>
	Other	8 (11.6)	15 (4.3)	5 (9.4)	19 (5.9)
Within year		p < .001		p = .021	
Public 2001 v 2004		p = .726			
Private 2001 v 2004		p = .464			
Type of shift	All three shifts	15 (22.1) <sup>a</sup>	27 (7.7) <sup>a</sup>	11 (21.2) <sup>b</sup>	36 (11.4) <sup>b</sup>
	Day	15 (22.1) <sup>a</sup>	55 (15.8) <sup>a</sup>	13 (25.0) <sup>b</sup>	51 (16.1) <sup>b</sup>
	Morning/evening	23 (33.8)	148 (42.4)	17 (32.7)	114 (36.1)
	Other	15 (22.1)	119 (34.1)	11 (21.2)	115 (36.4)
Within year		p = 001		p = 036	
Public 2001 v 2004		p = .986			
Private 2001 v 2004		p = .232			

\* n = number of responses

\*\* (%) = percentage of total responses

<sup>a a, b b</sup> Figures in a row with the same superscript differ from each other (p < .05)

**Table 2. Opinions of nurses on work load, staff numbers, staff skills and management response**

	Year of study			
	2001		2004	
	Public	Private	Public	Private
	Mean rating*	Mean rating	Mean rating	Mean rating
Job completed in time available	2.9	2.9	3.4 <sup>a</sup>	3.0 <sup>a</sup>
Within year	p = .589		p = .047	
Public 2001 v 2004	p = .051			
Private 2001 v 2004	p = .097			
Sufficient staff to cover needs	2.5	2.5 <sup>a</sup>	2.8	2.8 <sup>a</sup>
Within year	p = .895		p = .740	
Public 2001 v 2004	p = .179			
Private 2001 v 2004	p = .017			
Sufficient skill mix of staff	2.7 <sup>a</sup>	2.9 <sup>b</sup>	3.3 <sup>a</sup>	3.2 <sup>b</sup>
Within year	p = .139		p = .609	
Public 2001 v 2004	p = .008			
Private 2001 v 2004	p = .012			
Committee or process effective	2.8	3.0 <sup>a</sup>	2.5	2.8 <sup>a</sup>
Within year	p = .347		p = .338	
Public 2001 v 2004	p = .369			
Private 2001 v 2004	p = .045			

\* Higher the mean the more frequent the occurrence

<sup>a a, b b</sup> Figures in a row with the same superscript differ from each other (p<.05)

**Table 3. Sources of violence against nurses**

	Year of Study			
	2001		2004	
	Public	Private	Public	Private
	n (%)	n (%)	n (%)	n (%)
Subject to violence in last 3 months	70 (49.3)	354 (49.4)	57 (67.9)	348 (56.3)
Within year	p = .982		p = .103	
Public 2001 v 2004	p = .037			
Private 2001 v 2004	p = .072			
<b>Source of abuse*</b>				
Clients/patients	23 (67.6)	128 (74.4)	26 (65.0)	157 (77.3)
Within year	p = .415		p = .098	
Public 2001 v 2004	p = .810			
Private 2001 v 2004	p = .509			
Visitors/relatives	2 (5.9)	22 (12.8) <sup>a</sup>	8 (20.0)	50 (24.6) <sup>a</sup>
Within year	p = .251		p = .530	
Public 2001 v 2004	p = .077			
Private 2001 v 2004	p = .004			
Other nurses	6 (17.6) <sup>a</sup>	30 (17.2) <sup>b</sup>	17 (42.5) <sup>a</sup>	74 (36.5) <sup>b</sup>
Within year	p = .954		p = .470	
Public 2001 v 2004	p = .021			
Private 2001 v 2004	p = .000			
Nurse managers	7 (20.6)	28 (16.3) <sup>a</sup>	12 (30.0)	54 (26.6) <sup>a</sup>
Within year	p = .541		p = .659	
Public 2001 v 2004	p = .356			
Private 2001 v 2004	p = .016			
Other managers	3 (8.8)	17 (9.8)	0 (0.0)	14 (6.9)
Within year	p = .856		.087	
Public 2001 v 2004	p = .055			
Private 2001 v 2004	p = .303			
Doctors	3 (8.8)	5 (2.9)	2 (5.0)	10 (4.9)
Within year	p = .103		p = .984	
Public 2001 v 2004	p = .514			
Private 2001 v 2004	p = .320			
Allied health professionals	1 (2.9)	1 (0.6)	1 (2.5)	6 (3.0)
Within year	p = .200		p = .875	
Public 2001 v 2004	p = .907			
Private 2001 v 2004	p = .091			
Other staff	0 (0.0) <sup>a</sup>	8 (4.7) <sup>b</sup>	6 (15.0) <sup>a</sup>	29 (14.3) <sup>b</sup>
Within year	p = .200		p = .906	
Public 2001 v 2004	p = .018			
Private 2001 v 2004	p = .002			

<sup>a a, b b</sup> Figures in a row with the same superscript differ from each other (p<.05)

\* percentages of the respondents who indicated that they had been subjected to violence in the last three months.



**Table 4. Barriers to accessing training**

	Year of Study			
	2001		2004	
	Public	Private	Public	Private
	n (%)	n (%)	n (%)	n (%)
Lack of time	20 (37.7*)	93 (33.1) <sup>b</sup>	17 (30.4) <sup>a</sup>	52 (15.6) <sup>ab</sup>
Within year	p = .513		p = .008	
Public 2001 v 2004	p = .416			
Private 2001 v 2004	p = .000			
Lack of information	5 (9.4)	31 (11.0)	5 (8.9)	32 (9.6)
Within year	p = .731		p = .872	
Public 2001 v 2004	p = .927			
Private 2001 v 2004	p = .563			
Couldn't afford fees	21 (39.6)	109 (38.6) <sup>a</sup>	18 (32.1)	78 (23.4) <sup>a</sup>
Within year	p = .909		p = .161	
Public 2001 v 2004	p = .416			
Private 2001 v 2004	p = .000			
Could afford to take unpaid leave	13 (24.5)	77 (27.4) <sup>a</sup>	16 (28.6)	59 (17.7) <sup>a</sup>
Within year	p = .665		p = .057	
Public 2001 v 2004	p = .633			
Private 2001 v 2004	p = .000			
Family commitments	9 (17.0)	56 (19.9) <sup>a</sup>	5 (8.9)	39 (18.7) <sup>a</sup>
Within year	p = .619		p = .542	
Public 2001 v 2004	p = .209			
Private 2001 v 2004	p = .005			
Distance was a barrier	14 (26.4)	65 (23.1) <sup>a</sup>	9 (16.1)	30 (9.0) <sup>a</sup>
Within year	p = .606		p = .104	
Public 2001 v 2004	p = .186			
Private 2001 v 2004	p = .000			
Relief staff not available	14 (26.4)	65 (23.1) <sup>a</sup>	7 (12.5)	44 (13.2) <sup>a</sup>
Within year	p = .606		p = .884	
Public 2001 v 2004	p = .066			
Private 2001 v 2004	p = .001			
Employer would not permit leave	11 (20.8) <sup>a</sup>	23 (8.2) <sup>a</sup>	6 (10.7)	25 (7.5)
Within year	p = .006		p = .412	
Public 2001 v 2004	p = .149			
Private 2001 v 2004	p = .755			

<sup>a a, b b</sup> Figures in a row with the same superscript differ from each other (p<.05)

\* percentage of total respondents

**Table 5. Year worked and anticipated future years of work in nursing.**

	2001		2004	
	Public	Private	Public	Private
	n (%)	n (%)	n (%)	n (%)
Years in nursing				
Less than 5	7 (10.0)	34 (9.7)	8 (14.0)	43 (12.5)
5 - 9	7 (10.0)	44 (12.6)	6 (10.5)	52 (15.1)
10 - 14	6 (8.6)	49 (14.0)	8 (14.0)	38 (11.0)
15 - 24	21 (30.0)	83 (23.8)	10 (17.5)	68 (19.8)
25 - 34	22 (31.4)	91 (26.1)	18 (31.6)	86 (25.0)
35 and above	7 (10.0)	48 (13.8)	7 (12.3)	57 (16.6)
Within year	p = .577		p = .748	
Public 2001 v 2004	p = .653			
Private 2001 v 2004	p = .381			
Future years in nursing				
Less than 2	5 (7.2)	30 (8.6)	2 (3.5)	31 (8.9)
2 – 4	9 (13.0)	60 (17.3)	8 (14.0)	67 (19.3)
5 – 9	14 (20.3)	81 (23.3)	15 (26.3)	82 (23.6)
10 – 14	17 (24.6)	80 (23.1)	9 (15.8)	67 (19.3)
15 and above	12 (17.4)	52 (15.0)	10 (17.5)	48 (13.8)
Unsure	12 (17.4)	44 (12.7)	10 (17.5)	52 (15.0)
Within year	p = .818		p = .381	
Public 2001 v 2004	p = .708			
Private 2001 v 2004	p = .768			

**Table 6. Experiences in nursing**

	2001		2004	
	Public	Private	Public	Private
Nursing is emotionally challenging	2.1* ( $\pm$ .3)	1.9** ( $\pm$ .1)	1.9 ( $\pm$ .3)	2.0 ( $\pm$ .1)
Within year	p = .202		p = .677	
Public 2001 v 2004	p = .256			
Private 2001 v 2004	p = .848			
Workload is heavy	1.8 ( $\pm$ .2) <sup>a</sup>	1.6 ( $\pm$ .1)	1.4 ( $\pm$ .2) <sup>a,b</sup>	1.7 ( $\pm$ .1) <sup>b</sup>
Within year	p = .198		p = .028	
Public 2001 v 2004	p = .023			
Private 2001 v 2004	p = .107			
Work is physically demanding	2.0 ( $\pm$ .3)	1.9 ( $\pm$ .1)	1.9 ( $\pm$ .3)	2.0 ( $\pm$ .1)
Within year	p = .627		p = .623	
Public 2001 v 2004	p = .531			
Private 2001 v 2004	p = .807			
The pay rate is good	4.6 ( $\pm$ .5)	4.9 ( $\pm$ .2)	4.4 ( $\pm$ .5)	4.8 ( $\pm$ .2)
Within year	p = .287		p = .182	
Public 2001 v 2004	p = .580			
Private 2001 v 2004	p = .473			
Works hour are convenient	3.8 ( $\pm$ .5) <sup>a</sup>	4.4 ( $\pm$ .2) <sup>a</sup>	4.2 ( $\pm$ .5)	4.4 ( $\pm$ .2)
Within year	p = .008		p = .442	
Public 2001 v 2004	p = .184			
Private 2001 v 2004	p = .948			
Career prospects are good	3.7 ( $\pm$ .5) <sup>a,b</sup>	4.4 ( $\pm$ .2) <sup>b</sup>	4.5 ( $\pm$ .5) <sup>a</sup>	4.2 ( $\pm$ .2)
Within year	p = .012		p = .361	
Public 2001 v 2004	p = .033			
Private 2001 v 2004	p = .340			
Skill/experience are not rewarded	3.2 ( $\pm$ .4)	3.4 ( $\pm$ .2)	3.3 ( $\pm$ .5)	3.3 ( $\pm$ .2)
Within year	p = .291		p = .835	
Public 2001 v 2004	p = .710			
Private 2001 v 2004	p = .589			
Nursing is a high status career	4.4 ( $\pm$ .5)	4.3 ( $\pm$ .2)	4.1 ( $\pm$ .5)	4.2 ( $\pm$ .2)
Within year	p = .781		p = .659	
Public 2001 v 2004	p = .361			
Private 2001 v 2004	p = .314			
Work stress is high	1.8 ( $\pm$ .3)	1.8 ( $\pm$ .1)	1.7 ( $\pm$ .3)	1.8 ( $\pm$ .1)
Within year	p = .645		p = .627	
Public 2001 v 2004	p = .611			
Private 2001 v 2004	p = .714			
Colleagues are supportive	3.6 ( $\pm$ .5)	4.0 ( $\pm$ .2)	3.6 ( $\pm$ .5)	3.9 ( $\pm$ .2)
Within year	p = .145		p = .340	
Public 2001 v 2004	p = .998			
Private 2001 v 2004	p = .496			
The workplace is safe	3.0 ( $\pm$ .4)	2.7 ( $\pm$ .2)	2.8 ( $\pm$ .4)	2.8 ( $\pm$ .2)
Within year	p = .156		p = .982	
Public 2001 v 2004	p = .469			
Private 2001 v 2004	p = .521			
Autonomy encouraged	3.4 ( $\pm$ .5)	3.4 ( $\pm$ .2)	3.3 ( $\pm$ .4)	3.3 ( $\pm$ .2)

Within year	p = .978		p = .851	
Public 2001 v 2004	p = .657			
Private 2001 v 2004	p = .380			
Staff morale is good	4.7 (± .5)	4.8 (± .2)	4.4 (± .5)	4.5 (± .2)
Within year	p = .695		p = .828	
Public 2001 v 2004	p = .529			
Private 2001 v 2004	p = .067			
Staff morale is deteriorating	2.9 (± .4)	3.1 (± .2)	3.2 (± .5)	3.0 (± .2)
Within year	p = .640		p = .495	
Public 2001 v 2004	p = .472			
Private 2001 v 2004	p = .739			
Workplace is well equipped	3.4 (± .4)	3.4 (± .2)	3.3 (± .5)	3.3 (± .2)
Within year	p = .858		p = .864	
Public 2001 v 2004	p = .620			
Private 2001 v 2004	p = .598			
Nursing is valued by community	2.6 (± .4)	2.8 (± .2)	2.4 (± .4)	2.7 (± .2)
Within year	p = .295		p = .212	
Public 2001 v 2004	p = .497			
Private 2001 v 2004	p = .201			
Nursing is valued by health system	3.5 (± .5)	3.7 (± .2)	3.4 (± .5)	3.7 (± .2)
Within year	p = .331		p = .227	
Public 2001 v 2004	p = .857			
Private 2001 v 2004	p = .957			

<sup>a, b</sup> Figures in a row with the same superscript differ from each other (p<.05)

\*means and 95% confidence intervals (95% CI)

\*\* mean range = 1-7; the lower the mean the more in agreement with the question