

# The Issues Concerning the Ageing Workforce in the Health Care Industry – A Western Australian Case Study

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## **Abstract**

This working paper outlines data from a small study of workers in a private hospital in focussing on the issues of age and workplace injury. The study confirms current concerns about labour shortages arising from an ageing workforce. It also points to particular issues that relate specifically to the health care industry. These issues include a high propensity for injury and disease and longer duration rates for absence from work that arises in female dominated industries which are particularly apparent in the nursing industry. The paper concludes that policy-makers need to consider a range of special issues when preparing a strategy for engagement and retention of labour in the health care industry. These strategies include particular attention to work-life balance as well as remuneration and risk management.

## **Introduction - Australia's ageing workforce**

In Australia in 1970-1971, 31% of the population was aged 15 years or younger. By 2001-2002 this proportion had dropped to just 22%. At the other end of the spectrum, the proportion of the population aged over 65 had increased from 8% to 13% in the same period. The 65 and over age group is expected to increase to 25% in the next 40 years. With a current fertility rate of just 1.2% and a predicted fall to 0.85% by 2016, a sharp drop in new entrants to the Australian workforce is expected.<sup>1</sup>

If this trend continues, the expected outcome is an increase in the proportion of older workers remaining in the workforce relative to younger workers joining the workforce. Within the next 30 years, a combination of low fertility rates and an increase in the over 65s will result in a reduction from the current ratio of 5 people of working age for every person aged 65 and over, to a ratio of just 2 people.<sup>2</sup> The consequence of this demographic change is significant for the workforce and the economy as a whole. If these trends are realised, the Australian labour market will face different challenges and considerations than those of the past. Clearly, there is a need to consider strategies which assist in the retention of older workers in the workforce in order to prevent a dramatic reduction in the wage earners and tax payers who, in normal circumstances, would be expected to contribute through their taxation payments to the maintenance of those who have left the workforce.<sup>3</sup>

### **Strategies for the retention of workers and growing the workforce**

One strategy for tackling the issue of the ageing workforce is facilitating greater participation in the workforce by women. *Business Victoria* has released the study *Paving the Way for Older Women in the Workforce in 2025* which identified that between the ages of 25 and 65 participation by women in the workforce is more than 20 percentage points lower than for men in the same age group. In addressing the issue of declining numbers of workers in the Australian workforce as a proportion to those who have ceased work, the retention or re-involvement of women is, therefore, the logical target when aiming to increase labour force participation rates.

A key finding from *Paving the Way for Older Women in the Workforce in 2025*, which reviewed current literature relating to older women in the workforce, was the lack of current economic data relating to the participation of older women in the workforce. Most available literature refers to the participation of older men, but studies centred on women have tended to focus on younger women and have not included discussion on older women. Current literature reports that older women see caring roles within their

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<sup>1</sup> *Australia's demographic challenges*, Commonwealth of Australia, 2004

<sup>2</sup> *Australia's demographic challenges*, Commonwealth of Australia, 2004

<sup>3</sup> B Jorgensen, *The ageing population: implications for the Australian workforce*, (commissioned by Hudson ), August 2004

family and community as being key determinants as to whether they choose to participate in the workforce. A strong negative relationship has also been reported between poor health status and labour market participation. Findings in the report suggest that poor health is a far greater concern to non-partnered women as opposed to partnered women when considering a return to the workforce. The data showed that partnered women perceived that greater support was available to them from their partners to remain in paid work despite suffering ill health. For the increasing number of women becoming sole-parents, the *Paving the Way for Older Women in the Workforce in 2025* report found that there is currently little on offer by way of a safety net to encourage them to return to the workforce – certainly not past the age of 65.<sup>4</sup>

Bill Shorten, National Secretary of the Australian Workers Union, suggests the Federal Government should consider tax incentives for older employees and boost female work participation. Shorten noted that “workers’ compensation limitations based on age also have to be reconsidered if we seriously want to increase labour participation by older workers.”<sup>5</sup> Pru Goward, former Commonwealth Sex Discrimination Commissioner, believes economic necessity will see discrimination diminish against women in their 50s seeking work.<sup>6</sup> Economic imperatives may reduce the incidence of discrimination in employing older women, but current legislation, such as outdated workers’ compensation laws, may lead older women to face a whole range of new issues, such as workplace injury.

### **Women in health care in Western Australia**

It is estimated that approximately 30% of women throughout Australia work in the Health and Community Services industry.<sup>7</sup> Statistics from the study in *Women’s Pay and Conditions in an Era of Changing Workplace Regulations: Towards a “Women’s Employment Status Key Indicators” (WESKI) database* (the ‘WiSER report’) indicate that the Health and Community Services sector has the third highest percentage of award workers (26.6%), the highest share of employees who are women (78.6%), and the second highest percentage of employees who are employed part-time (44.6%). In

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<sup>4</sup> *Paving the way for older women in the workforce 2025*, Business Victoria, Executive summary

<sup>5</sup> S Baden, *Shorten wants incentives for old workers*, AAP Bulletins, 20 September 2005

<sup>6</sup> *Women in workforce an economic necessity*, ABC Newsonline, 10 September 2004

<sup>7</sup> R Guthrie & L Waldeck, *Laws relating to safety compensation and equal employment law (industrial) 303*, School of Business Law, Curtin University of Technology, 2005

addition, the *WiSER* report also drew on the Australian Bureau of Statistics Data (2004) which highlights the discrepancy between actual earnings of men and women in the Health and Community Services sector, as shown in Table One.<sup>8</sup>

Table One

Full-time Employees Average Weekly Earnings (AWE)		Part-Time Employees	All Employees
Non-Managerial AWE Adult \$	Non-Managerial AWE Juniors \$	Total AWE \$	Total AWE \$
FEMALES			
826.20	396.30	463.50	602.40
MALES			
1010.30	436.90	605.70	939.60

According to WorkCover WA, women in the Health and Community Services industry in Western Australia had a Frequency Rate of 19.5 in 2004/05, second only to Agriculture, Forestry and Fishing with 21.5.<sup>9</sup> The latter three male dominated industries have been consistently recognised for the inherently dangerous nature of the work. On the other hand Health and Community Services work (which includes nursing) is generally an industry dominated by women.

Health and Community Services is also one of the few industries where women significantly outnumber the men in terms of lost-time frequency. Statistics from WorkSafe relating to *Average Frequency and Incidence Rates 2002-03 to 2004-05*<sup>10</sup> reflect a similar trend, with Health and Community Services showing a Frequency Rate average of 18.2<sup>11</sup>, which is less than Agriculture, Forestry and Fishing (22.1), Manufacturing (25) and Construction (19.8), but far greater than Mining (9.7) and Transport and Storage (17.2) which are largely male-dominated industries.

<sup>8</sup> Extracted from Table 3.1, page 26, of the *WiSER* report

<sup>9</sup> Lost-time claims per million hours worked

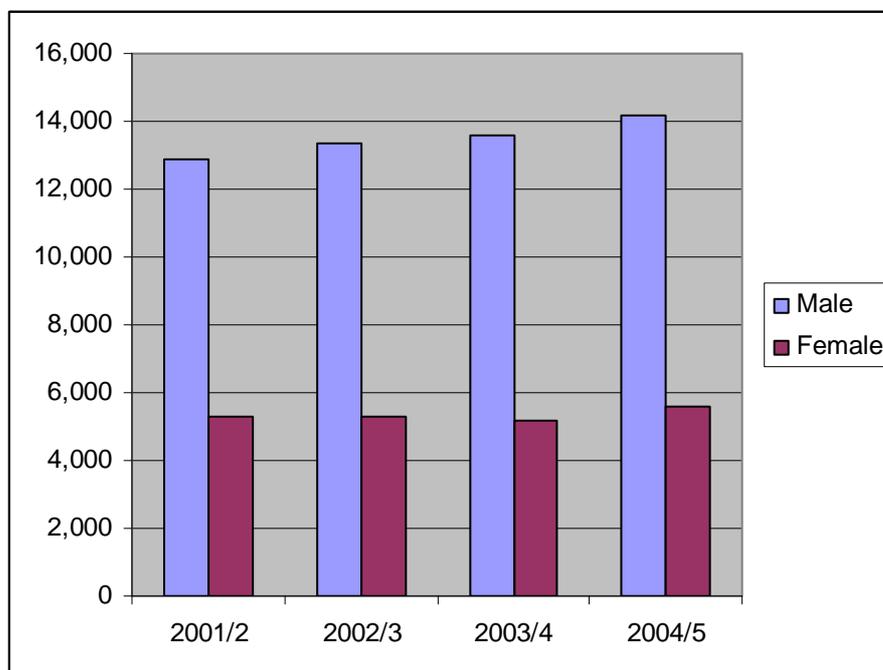
<sup>10</sup> *Work related lost-time injury and disease statistics*, DOCEP

<sup>11</sup> Frequency Rate = number of LTI/Ds/number of hours worked x 1,000,000

## Age and injury trends in health care in Western Australia – a small Case Study

This paper provides a case study based on data supplied by a large private health care organisation<sup>12</sup> (the “Hospital”) which was compared with the data from the Western Australian scheme. The results highlight the predominance of female workers employed in the area of health care in Western Australia. Table Two shows the number of men as compared to women who lodged lost-time claims across the entire workers’ compensation scheme in Western Australia over the past four data collection years

Figure One (Source *Workers Compensation Western Australia Statistic Report 2001/2-2004/5*)

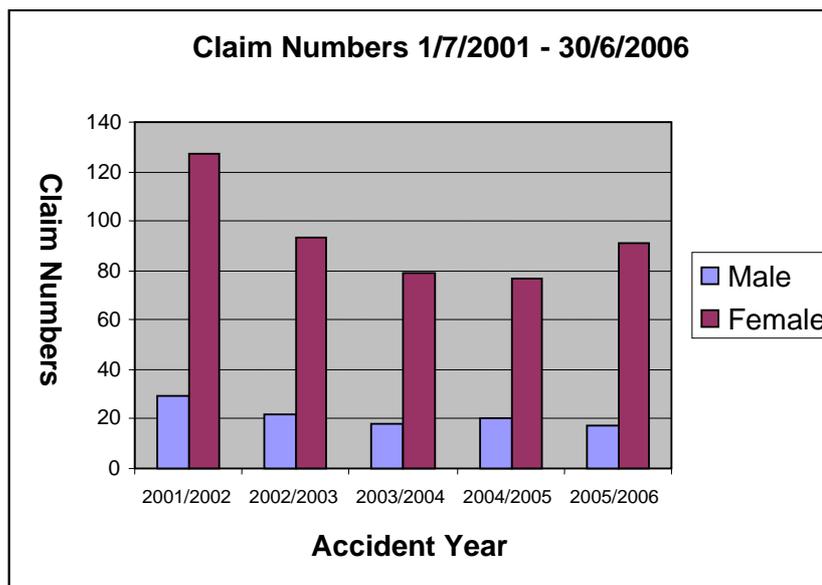


It can be observed that claims made by woman are average less than 50% of the claims rate of men. This reflects a number of factors not the least of which is the greater numbers of men in the paid workforce, but also the greater concentration of men in recognised dangerous activities such as agriculture, manufacturing and construction. Women tend to be concentrated in less dangerous industries although as will be shown below nursing falls into a somewhat different category

<sup>12</sup> Injury statistics apply to WA only and are based on staff numbers of approximately 4,000. The Hospital is part of a national health care group.

WorkCover WA data indicates that males account for around 72% of lost-time claims over the past 4 years. Figure Two shows all claims lodged with the Hospital from 1 July 2001 to 30 June 2006. Across the 5 years, the percentage of claims lodged by women is significantly higher than for men at 81.5%. This suggests that the demographic within the hospital is vastly different from the overall demographic of the Western Australian workforce as shown in Figure One above.

Figure Two (Source Hospital data on file)



The disparity between the male to female claims lodged with the Hospital as compared with the overall picture of workplace injury and disease as found in the WorkCover WA data referred to above is likely to be caused by a combination of:

- (a) the predominance of women employed in the health care sector as compared to the overall workforce and in particular the dominance of women as employees and workers at the Hospital; and
- (b) the inherent risks associated with the occupations in the health sector performed more often by women. The risks associated with the health care sector include a range of matter and are discussed below..

## **Manual handling - patients**

Health care workers are frequently involved with manual handling of patients. Even with additional lifting aids this may be hazardous work. WorkSafe Victoria<sup>13</sup> refers to the handling of live persons as a “hazardous” manual handling activity. In that Victoria a program, “Design 4 Health” was introduced 2004/2005 in an attempt to reduce the high numbers of musculoskeletal injuries occurring in the health and aged care industries. The program formed part of the National Occupational Health & Safety Commission Strategy whose aim is to reduce the number of injuries in the health and aged care industries by 40% by 2012. Manual handling injuries usually manifest in musculoskeletal injuries, notoriously the most common form of workplace injury.

## **Manual handling - cleaning staff**

Despite the declining requirement for patient handling brought about by the use of lifting aids, cleaning staff are also subject to a different type of manual handling risk, as noted by Woods and Buckle from the Robens Centre for Health Ergonomics in Surrey. Their studies<sup>14</sup> focused on the design and use of workplace cleaning equipment and recommendations for ergonomic improvement in an attempt to reduce the risk of musculoskeletal injury. Reporting systems, risk assessments, training, equipment and its maintenance can all have a positive effect on injury reduction. Despite these measures, the nature of cleaning is physical and repetitive which frequently correlates with repetitive injuries (such as tenosynovitis and epicondylitis), shoulder complaints and back injuries, as well as slips and trips on wet floors, and stumbling over equipment and equipment cords.

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<sup>13</sup> [www.worksafe.vic.gov.au](http://www.worksafe.vic.gov.au)

<sup>14</sup> V Woods & P Buckle, ‘An investigation into the design and use of workplace cleaning equipment’, *International Journal of Industrial Ergonomics*, March 2005, vol. 35, no. 3, pp. 247-266

## **Migrant workers**

A large number of cleaning staff in the health sector are female migrants. For example, Colic-Peisker and Tilbury recognised niche employment markets for migrants and refugees in Western Australia involving cleaning services and care of the aged.<sup>15</sup> The other areas identified were meat processing, taxi driving, security and building, which are largely male-dominated professions. A significant number of migrant women undertake cleaning positions as these are open to them because of the limited language and formal requirements needed for employment. Often women are forced to take cleaning work due to the absence of social networks within the new migrant community that otherwise might assist them in finding alternate employment. Many of these women have been working in labour-intensive, physical jobs for much of their working life and the propensity for further injury is increased the longer they remain in the workforce.

## **Blood-borne infection**

A risk which is very relevant to nurses and phlebotomists in a health care setting is the risk of contracting blood-borne diseases such as HIV, Hepatitis B and Hepatitis C. As a high proportion of nurses and phlebotomists at the Hospital are women, they face a higher risk of infection – the contraction of which may not be apparent for many years. WorkSafe Western Australia identified blood-borne infection as a risk as early as 1993. A study of Western Australian hospitals during 1993 found many health care workers did not take adequate safety measures against blood-borne diseases.<sup>16</sup> Since that time concerted efforts have been made to improve awareness of these risks.

## **Violence in the health care industry**

An emerging issue in the occupational health and safety area is aggression and violence in the workplace. The risks are particularly serious for hospitals dealing with medicated and unpredictable patients, and even more so for hospitals with emergency departments. Benveniste et al. utilised the AIMS (Australian Incident Monitoring System) to compile

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<sup>15</sup> V Colic-Peisker & F Tilbury, 'Employment niches for recent refugees: segmented labour market in twenty-first century Australia', *Journal of Refugee Studies*, 2006, vol. 19, no. 2, pp. 203-229

<sup>16</sup> *Infection Risk*, WorkSafe WA, Safetyline No. 19, August 1993

data on violence in the health care profession.<sup>17</sup> They found that 9% of all incidents involved patients and physical violence or violent verbal exchange. 5% of those incidents resulted in staff injury. The percentage rose to 16% in an emergency department setting, with mental health services experiencing 28%. A poll conducted by the Australian Nursing Journal found that over a quarter of nurses had experienced violent incidents at work on a daily basis, and over 40% had received physical injuries at work.<sup>18</sup>

### **Shift work**

Nursing and health care work involves shift work, as service to patients is a 24 hour requirement. The effect of shift work upon workers health has been extensively studied and, whilst the conclusions are not always consistent, it is well accepted that prolonged shift work has a number of adverse health effects. In response to this growing body of research, the Australian Council of Trade Unions released Guidelines for shift work and extended hours in 2000.<sup>19</sup> The Guidelines identified key areas of health and safety affected by shift work, such as ongoing sleep problems, increased physical and mental fatigue, concentration difficulties and, most importantly, an increased risk of accidents.

### **Age**

In this case study the average age of employees across the Hospital was 42.8 years old. There is a positive correlation between age and injury in that older workers, generally by reason of their experience and familiarity with a workplace, suffer fewer injuries than younger workers. Even allowing for the prohibition on engagement and promotion based on age, older workers may also have been elevated to positions of a more supervisory nature and are, therefore, less exposed to risks. However, older workers have longer rates of recovery than younger workers, so once injured they are absent from the workforce for longer periods. In addition, some workers who are injured at a later stage in their working life are more likely to choose this time to exit the workforce

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<sup>17</sup> KA Benveniste, PD Hibbert & WB Runciman, 'Violence in health care: the contribution of the Australian Patient Safety Foundation to incident monitoring and analysis', *Medical Journal of Australia*, 2005, vol. 183, no. 7, pp. 348-351

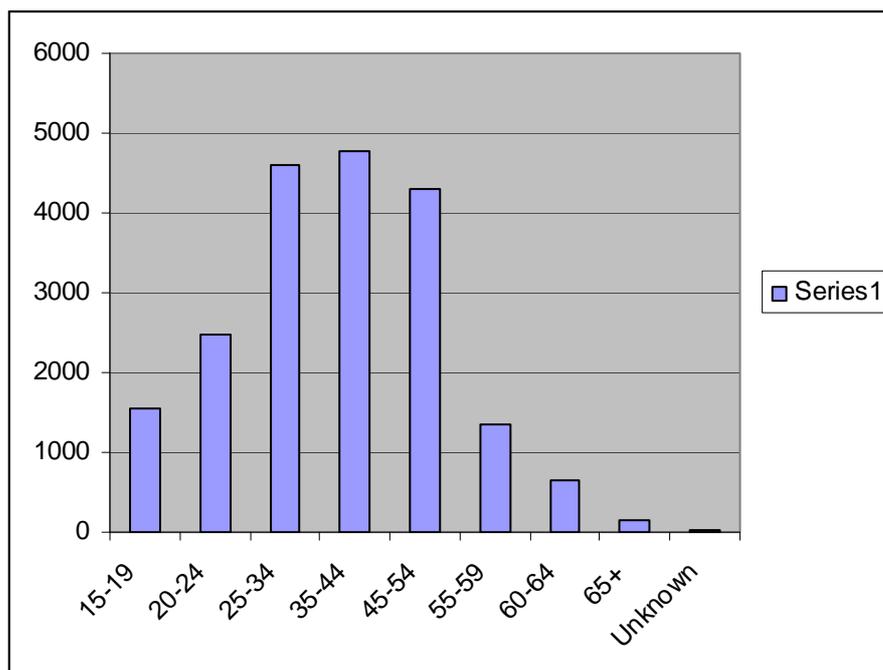
<sup>18</sup> *Australian Nursing Journal*, July 2002, vol. 10, issue 1, p. 6

<sup>19</sup> *Health and safety guidelines for shift work and extended working hours*, ACTU OHS Unit, September 2000, D No. 66/1000

than younger workers. Older workers may have accumulated sufficient savings or income support to make the return to work less attractive than it may be to those workers who have ongoing financial commitments. That said, if there is no change to the mode of work for some workers in the health industry and they continue to be engaged in manual handling occupations, such as nursing and cleaning, an increase in the average age of the workforce is likely to lead to a larger number of claims relating to “wear and tear” conditions such as bursitis, tendonitis, arthritis etc. The overall average age of women who lodged claims with the Hospital in the 2005/2006 accident year was 44 years of age, slightly above the average age of all employees across the group. Interestingly, the average age for claims lodged by men for the same period was slightly less than the group average, at 40 years of age. This suggests that men who are engaged in the health care industry may be engaged in different activities to women and, therefore, less exposed to risk of harm in the workplace. The other less likely theory is that men in this industry chose for whatever reason not to lodge claims or are safer workers than women.

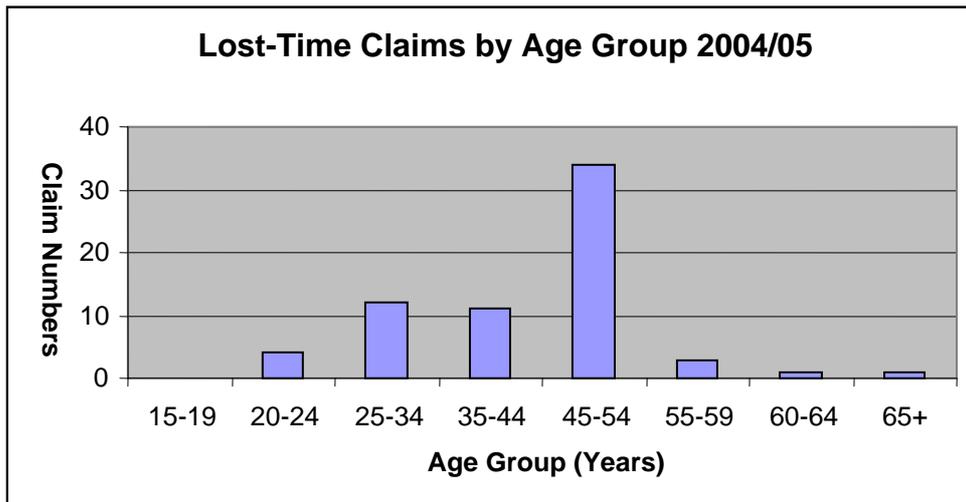
Figure Three below details lost-time claims age-banded across the entire State scheme. The two highest bands are the 25-34 and 35-44 age groups.

Figure Three (Source *Workers Compensation Western Australia Statistic Report 2001/2-2004/5*)



Across the Hospital, for the period 2004/5 the 45-54 age group accounts for 51.5% of the lost-time claims in 2004/05 (see Figure Four). Whereas the 45-54 age group across the entire State scheme accounts for only 21.6% of all lost-time claims.

Figure Four (Source Hospital data on file)



Although there was only one claim in the over 65 age group during the 2004/05 accident year, that one claim represents 1.5% of claims lodged at the Hospital, as opposed to 0.75% across the entire state scheme. Another factor which influences claims cost and productivity is claim duration. Figure Five confirms that the female age group within the workforce as a whole with the longest claim duration in 2003/2004 (most recent statistics available) is the 60-64 age group.

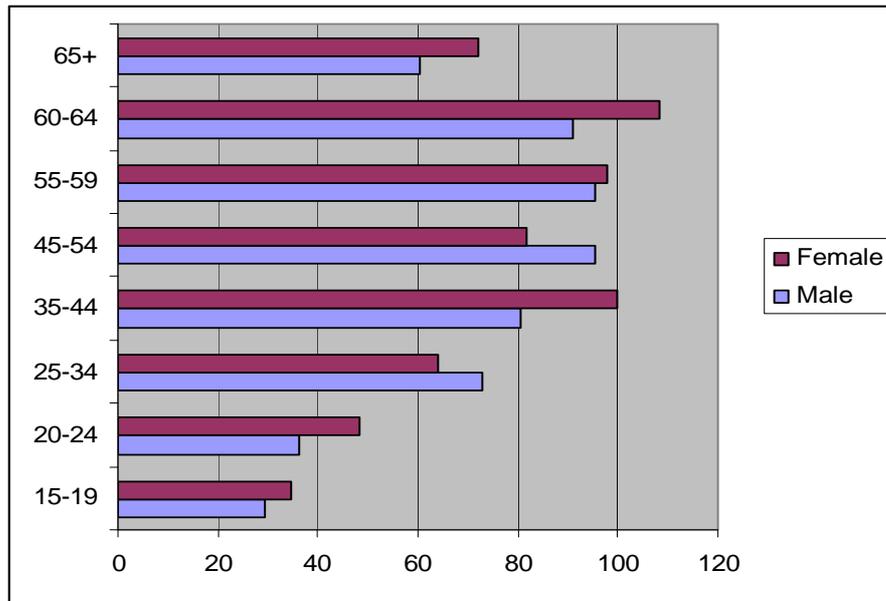


Figure Five (Source *Workers Compensation Western Australia Statistic Report 2001/2-2004/5*)

The Hospital reported a relatively small number of claims in the over 60 age group, however, with the ageing workforce likely to show an upward trend over the next twenty years, the age banding in claims experience is likely to also show an upward trend. Whilst the majority of claims at the Hospital are currently in the 45-54 age group it is likely that the staff in that age bracket will be increasingly encouraged to continue in the industry. By 2020, the age group currently representing the highest claim numbers (45-54) will be well into the age group representing the longest duration of claims across the scheme (60-64). It does not necessarily follow that the rate of injury and disease claims will translate into higher rates of claims in the 60-64 age group, but this data does support the proposition that this age group will continue to have high duration rates, bought about by wear and tear injuries. It also follows that the current demographic in the Hospital and indeed in the health care industry in Western Australia generally, highlights a continuing issue of concern in relation to age and recruitment within the health care industry.

### **Workers' compensation legislation in Western Australia**

Section 56 of the *Workers' Compensation and Injury Management Act 1981* (WA) provides that most workers' compensation payments will cease when the worker reaches the age of 65. Some workers will have ongoing entitlements after age 65, but

with significantly reduced payments for a limited period, usually 12 months. In other words, this legislation discriminates against older workers, but by reason of the exclusions in the *Equal Opportunity Act 1984* (WA), which exempts other legislative provisions from the prohibition on discrimination, these provisions are allowed to operate. There is clearly a tension between laws such as section 56 of the *Workers' Compensation and Injury Management Act 1981* (WA), which are a disincentive for older workers to continue in and/or return to the workforce, and the economic imperatives which point towards the need for older workers to remain in the workforce.<sup>20</sup>

Studies have shown that older workers consider maintaining a balance between continuing to participate in paid work with other areas of their lives as a critical factor in remaining in the workforce.<sup>21</sup> Unfortunately, the current workers' compensation legislation leaves employers with a gaping hole in providing the appropriate security to those women who consider remaining in the workforce in some capacity after the age of 65. If a woman aged over 65 falls down a flight of stairs at work, or suffers a disc herniation while bending to unplug a vacuum cleaner, she has limited access to compensation under the current Act. A large number of women in the 65-70 age-bracket provide some child-minding assistance to allow their children to return to the workforce after starting a family. Others may care for an infirm relative or spouse. These are the "other areas of their lives" referred to above. On top of losing income and facing the possibility of never being able to work again, these women also face the possibility of losing their ability to perform their other duties, which are possibly more important to them than their paid work.

Interestingly, data provided by the Hospital indicates that 55 employees, or 0.09% of the workforce employed across the group nationally, are aged 65 and over.<sup>22</sup> Of these staff, 73% work in the areas of nursing, health professionals/ medical officers and patient support; only the remaining 27% work in the lower risk area of administration. As noted above, occupational risks such as shift work, blood-borne infection, manual

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<sup>20</sup> R Guthrie, *Workers' compensation and age discrimination in Australia*, Curtin University of Technology

<sup>21</sup> M Merkes, *A longer working life for Australian women of the baby boom generation? – women's voices and the policy implications of an ageing female workforce*, LaTrobe University, June 2003

<sup>22</sup> Age Profile as at 2 July 2006

handling and workplace violence are more likely to affect staff employed in the these areas. The same statistics indicate that 738 employees or 12.7% of the workforce across the Hospital nationally, are aged 55-64. Again, 73% of those employees are in the areas of nursing, health professionals/medicals officers and patient support.

Western Australia is currently experiencing labour shortages due to the resources boom.<sup>23</sup> The migration of many Western Australians to jobs in the North-West has left a wide range of industries short-staffed, including the health care industry. The labour shortage is compounded in health care because there has been a worldwide shortage of nurses for some time.<sup>24</sup> A problem that might otherwise be solved by skilled migration is only compounded as the global competition for health professionals increases. Another effect of the ageing population is the expected increase in pressure on health care resources. Logically, given the greater health needs of the elderly, health expenditure, both public and private, will steadily increase as the population ages, leaving an even larger gap between the staffing that is required and what is available in the labour market. It is expected that a proportion of the current nursing staff will look to reduce their hours or move towards retirement, but with a lack of new graduates to take their place stresses on other retained workers could arise. This will be an ongoing challenge for all health care providers in Australia, as competition mounts to retain the best staff for as long as possible. Due to the relatively low profit margins in the health care field, inflated remuneration is not the long term answer to retaining quality staff.

## Conclusions

There has been a worldwide shortage of registered nurses for some time due to a range of factors including relatively low pay levels, long hours, under-resourcing of health care facilities and increased risk of injury.<sup>25</sup> Workers in the health care industry also face special issues in relation to injury, disease and longevity in the workforce. The health care industry is made up of predominantly female workers. Many studies have shown that despite the introduction of anti-discrimination legislation and that women continue to dominate particular areas of the workforce, they are paid less than their male

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<sup>23</sup> A Morton, *Victorians flock to WA as labour shortage continues*, *The Age*, 27 October 2006

<sup>24</sup> MJ Purnell, DED Horner, J Gonzalez, N Westman, 'The nursing shortage: revisioning the future', *Journal of Nursing Administration*, April 2001, vol. 31, no. 4

<sup>25</sup> RZ Booth, 'The nursing shortage: a worldwide problem', *Revista Latino-Americana de Enfermagem*, May/June 2002, vol. 10, no. 3, pp.392-400

counterparts in many instances, occupy less senior positions, work more casual and part-time hours than men, and they continue to work a double-shift as carers for their children and family members. The health care industry is under considerable pressure to cater for a growing number of clients/patients. The demand on the health care industry to retain experienced workers is extreme. Retention of workers' compensation laws that do not provide equity for older workers is probably a less significant issue in relation to the recruitment and retention of older workers, though these provisions could easily be removed. However, a strategy to engage and retain health care workers will need to address the front-end issues discussed previously. These include less than attractive pay rates, occupational injury and disease concerns, and hours of work which are not family friendly, none of which are easy to resolve. As this small study of the Hospital data has shown, private hospitals will have the same concerns to address as public hospitals, and in many cases will need to address human resource issues without the assistance of Government funding. In considering these issues, the Hospital developed a discussion paper that highlighted work-life balance as a key component in the retention of staff. The Hospitals own researches show a need for a work/life balance which allows a range of flexible work practices. It was acknowledged that older workers have a strong preference for a work/life balance as a condition of continuing work.<sup>26</sup> These flexible arrangements might include the following;

1. Paid carers leave
2. Flexible shift arrangements – compressed time, working required hours over fewer days
3. Ability to purchase leave for carers
4. Deferred salary schemes (payment of less wages annually to allow workers extended leave)
5. Paid maternity leave
6. Self rostering
7. Accrual of other leave
8. Phased retirement – reduction of hours of an period of time
9. Conversion to part time or casual work
10. Working from home arrangements – increased job mobility

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<sup>26</sup> Merkes M (2003) A Longer Working Life for Australian women of the Baby Boom Generation? – Womens voices and the policy implications of an ageing female workforce. Unpublished PhD Thesis La Trobe University Victoria accessed on 30<sup>th</sup> October 2007 at [http://members.westnet.com.au/monikamerkes/phd\\_thesis\\_monika\\_merkes\\_2003.pdf](http://members.westnet.com.au/monikamerkes/phd_thesis_monika_merkes_2003.pdf)

## 11. Improved staff facilities at work

The trends are such that in the nursing industry the move towards work/life balance as a retention strategy for employers is an imperative.

## BIBLIOGRAPHY

### Cases, Articles and Journals

- Andrews, The Hon Kevin, MP, Minister for Ageing, *National Strategy for an ageing Australia - an older Australia, challenges and opportunities for all*, [www.longevity-international.com](http://www.longevity-international.com)
- *Australian Nursing Journal*, July 2002, vol 10, issue 1, p. 6
- *Australia's demographic challenges*, Commonwealth of Australia, 2004
- Baden, S, *Shorten wants incentives for older workers*, AAP Bulletins, 20 September 2005
- Benveniste, KA, PD Hibbert & WB Runciman, 'Violence in health care: the contribution of the Australian Patient Safety Foundation to incident monitoring and analysis', *Medical Journal of Australia*, 2005; vol. 183 no. 7, pp. 348-351
- Booth, RZ, 'The nursing shortage: a worldwide problem', *Revista Latino-Americana de Enfermagem*, May/June 2002, vol. 10, no. 3, pp.392-400
- Buerhaus, PI, DO Staiger & DI Auerbach, 'Implications of an aging registered nurse workforce', *The Journal of the American Medical Association*, June 14 2000, vol. 283, no. 22; pp. 2948-2954
- Cohen, JD, 'The ageing nursing workforce: how to retain experienced nurses', *Journal of Healthcare Management*, July/August 2006, vol. 51, no. 4, pp. 233-45
- Colic-Peisker, V & F Tilbury, 'Employment niches for recent refugees: segmented labour market in twenty-first century Australia', *Journal of Refugee Studies*, 2006 vol. 19, no. 2, pp. 203-229
- Graycar, R & J Morgan, *Chapter 2 – Out to work, the hidden gender of Law*, 2<sup>nd</sup> Edition, Federation Press, 2002,
- Guthrie, R, *Workers' compensation and age discrimination in Australia*, Curtin University of Technology
- Guthrie, R *Report on the implementation of the Labor party direction statement in relation to workers' compensation*, Institute for Research into International Competitiveness, Curtin University of Technology, 31 July 2001

- Guthrie, R & L Waldeck, *Laws relating to safety compensation and equal employment law (industrial) 303*, School of Business Law, Curtin University of Technology, 2005
- *Harvester Wage Case* (1907) 2 CAR 1
- *Health and safety guidelines for shift work and extended working hours*, ACTU OHS Unit, September 2000, D No. 66/1000
- ‘The Hospital’s age profile statistics’, July 2006
- ‘The Hospital’s workers’ compensation statistics’, 2001-2006
- *How are older women faring in Australia's ageing workforce?*, [www.cota.org.au](http://www.cota.org.au)
- Ilmarinen, J, ‘The ageing workforce - challenges for occupational health’, *Occupational Medicine*, September 2006, vol. 56, issue 6; pp. 362-364
- *Inequities in Workforce Participation*, [www.eeo.gov.au](http://www.eeo.gov.au)
- *Infection Risk*, WorkSafe WA, updated from an article in Safetyline No. 19, August 1993
- Merkes M (2003) *A Longer Working Life for Australian women of the Baby Boom Generation? – Womens voices and the policy implications of an ageing female workforce*. Unpublished PhD Thesis La Trobe University Victoria accessed on 30<sup>th</sup> October 2007 at [http://members.westnet.com.au/monikamerkes/phd\\_thesis\\_monika\\_merkes\\_2003.pdf](http://members.westnet.com.au/monikamerkes/phd_thesis_monika_merkes_2003.pdf)
- Morton, A, *Victorians flock to WA as labour shortage continues*, *The Age*, 27 October 2006
- *Paving the way for older women in the workforce 2025*, Business Victoria. Executive summary, [www.business.vic.gov.au](http://www.business.vic.gov.au)
- Preston, A, T Jefferson, & R Seymour, *Women’s pay and conditions in an era of changing workplace regulations: towards a “Women’s Employment Status Key Indicators” (WESKI) database*, WiSER - Women in Social & Economic Research, Curtin University of Technology for The Human Rights and Equal Opportunity Commission, The Women’s Electoral Lobby, The National Foundation for Australian Women, September 2006

- *Productive and safe workplaces for an ageing workforce*, [www.apsc.gov.au/publications03/maturecomcare.htm](http://www.apsc.gov.au/publications03/maturecomcare.htm)
- Purnell, MJ, DED Horner, J Gonzalez, & N Westman, 'The nursing shortage: re-visioning the future', *Journal of Nursing Administration*, April 2001, vol. 31 no. 4
- *Rural Workers' Union v Mildura Branch of Australian Dried Fruits Association* (1912) 6 CAR 62 at 70
- *United Construction Pty Ltd v Rizzo* [2000] WASCA 207
- *Women and ageing*, [www.ofw.facs.gov.au](http://www.ofw.facs.gov.au)
- *Women in the workforce*, Unionteach, [www.labor.net.au](http://www.labor.net.au)
- *Women in workforce an economic necessity*, ABC Newsonline, 10 September 2004
- Woods, V & P Buckle, 'An investigation into the design and use of workplace cleaning equipment', *International Journal of Industrial Ergonomics*, March 2005, vol. 35, no. 3, pp. 247-266
- Woods, V & P Buckle, 'Musculoskeletal ill health amongst cleaners and recommendations for work organisational change', *International Journal of Industrial Ergonomics*, January 2006, vol. 36, no. 1, pp. 61-72
- *Workers Compensation Western Australia Statistic Report 2001/2-2004/5 WorkCover 2006*
- *Work/life balance*, Discussion Paper, National Human Resources, May 2006
- *Workers' Compensation and Injury Management Act (WA) 1981*

## Websites

- [www.abs.gov.au](http://www.abs.gov.au)
- [www.cota.org.au](http://www.cota.org.au)
- [www.docep.wa.gov.au](http://www.docep.wa.gov.au)
- [www.hreoc.gov.au](http://www.hreoc.gov.au)
- [www.nursing.health.wa.gov.au](http://www.nursing.health.wa.gov.au)
- [www.women.gov.au](http://www.women.gov.au)
- [www.workcover.wa.gov.au](http://www.workcover.wa.gov.au)

- [www.worksafe.vic.gov.au](http://www.worksafe.vic.gov.au)