Missed Nursing Care: Report to the Australian Nursing and Midwifery Federation: Tasmanian Branch

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Abbreviations and Acronyms

ABS Australian Bureau of Statistics ADL Activities of Daily Living A&E Accident and Emergency Department AHPRA Australian Health Practitioner Regulation Agency AIHW Australian Institute of Health and Welfare AiN Assistants in Nursing ANF Australian Nursing Federation ANMFSA Australian Nursing and Midwifery Federation South Australia ANMF Australian Nursing and Midwifery Federation AMA Australian Medical Association DHHS Department of Health and Human Services EB Enterprise Bargaining ED Emergency Department EN Enrolled Nurse GP General Practitioner IT Information Technology			
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EN Enrolled Nurse GP General Practitioner			
GP General Practitioner			
IT Information Technology			
, C			
LGH Launceston General Hospital			
HCAHPS The Hospital Consumer Assessment of Healthcare Providers a	The Hospital Consumer Assessment of Healthcare Providers and		
Systems			
MCH Mersey Community Hospital			
NAPLAN National Assessment Program Literacy and Numeracy			
NEAT National Emergency Admission Times			
NEST National Elective Surgery Targets			
NHPPD Nursing Hours Per Patient Day			
NHS National Health Service			
NPM New Public Management			
NUM Nurse Unit Manager			
NW North West			
NWRH North West Regional Hospital			
TAS Tasmania			
TRDS Tasmanian Role Delineation Framework			
PHIAC Private Health Insurance Admonition Council			
RHH Royal Hobart Hospital			
RN Registered Nurse			
SBREC Social and Behavioural Research Ethics Committee			
TAFE Technical and Further Education			
TRDF Tasmanian Role Delineation Framework			

Executive Summary

- From June through to the end of July 2015, the missed care survey was run through the Australian Nursing and Midwifery Federation Tasmanian Branch. Six hundred and forty eight nurses, midwives and four personal care workers completed the survey. These figures mirror state numbers in terms of gender, and number of RNs to ENs and midwives.
- The survey was made up of ten demographic questions, 22 questions that explored working conditions including questions to do with how workload is measured and staff assigned to the ward or unit, 21 questions concerning missed care (care that is omitted, postponed, or not completed) and 19 questions that asked the participants why they believed care was missed.
- The survey also included questions on staffing tools, rounding and whether or not nurses considered they worked within their scope of practice. Kalisch defines missed care as "required patient care that is omitted (either in part or in whole) or delayed" and acknowledges that it is a response to "multiple demands and inadequate resources" (Kalisch & Williams 2009, p. 1510).
- The proliferation of research on missed care, including the work on rationed care is ensuring that researchers are exploring underlying causation in more depth. To date analysis by the Australian team have focused on the relationship between missed care and work intensification linked to new public management.
- Recent research published by Kalisch (2006; 2009; 2012) makes a distinction between missed care as an error of omission (care not given) and missed care as an error of commission (incorrect care). In tracking omitted care, Debney and Kalisch (2015a) have developed a missed care survey for patients which demonstrated considerable consistency with nurses' perception of missed care.
- A significant finding of the patient surveys is the impact of skill mix on missed care. Registered nurses are less likely to miss care than lower grades of care workers. This is attributed to their knowledge and deeper understanding of the importance of timeliness in providing care.
- Recently published research by Kalisch et al. (2012), showed that skill mix, leadership and team work are also factors strongly associated with missed care.
- Castner et al. (2014) explored missed care during times of hospital merger. Their research demonstrates that unit level factors and individual nurse factors are both contributors to missed care and there is ample evidence of related factors during hospital merger such as re-admissions following early discharge and reduced staffing levels that point to missed care.
- Both the Castner et al. (2014) and the Blackman et al. (2015a) studies confirm Kalisch et al. (2015) observation that nurse skill mix and nurse communication are key to reducing missed care.
- Studies suggest that highly experienced nurses report more missed care than younger nurses with less years of experience and these same nurses report major issues with supply and communication problems. It is not clear whether this is because these nurses are more reflective than younger less experienced nurses; intuitively this would seem a reasonable assumption.
- One of the managerial responses to missed care is to introduce mandatory rounding. Rounding involves
 nurses carrying out regular and standardised checks on all patients at set intervals to assess and manage
 their fundamental care needs. This is usually done on an hourly basis and is promoted as an opportunity

for the nurses to involve the patient in their own care, and for them to ensure all is well (Tea, Ellison & Feghali, 2008).

- Tasmania is a small state with low population and a resource base limited by low revenue.
- Tasmanian health care like the rest of Australia it is a mixed system. There are 27 public and 14 private hospitals in the State. Four of the public hospitals are major providers, the other 23 are rural or community based. These smaller hospitals offer varying services from residential aged care, emergency, primary care and sub-acute and same day surgery.
- Health outcomes for Tasmanians are below Australian national averages. This is reflected in lower life expectancy rates for both males and females, and the percentages of the population who smoke, are obese or overweight, as well as prevalence of chronic conditions all of which are higher than national average.
- Health system performance in Tasmania is also below peer hospitals in other states, with outcomes for patients influenced by where they live.
- The major reform direction for 2015 and beyond is to organise the sector into one system, rather than three health organisations with specific hospitals operating as centres of excellence.
- The concept of universal health care equity and access, the corner stone of the 1983 Medicare agreements has given way to quality and risk reduction, and a stronger focus on medical expertise.
- Similar to mainland Australia, people living in Tasmania have access to private health care services. There are 14 private hospitals in Tasmania. However, the number of people with private health insurance in below the national average.
- According to the Australian Health Practitioner Regulation Authority Nursing and Midwifery (AHPRA) statistics (March 2015) there are 7989 registered [6429 792 male] and enrolled nurses [1426- 127 male] plus 47 with dual qualifications in Tasmania with around 87 of these not practicing. There are 647 nurse/midwives with 7 not practicing and 17 midwives with a single qualification.
- One of the confounding issues for Tasmania is remoteness. New South Wales has the highest average available beds per 1,000 population in *Remote* areas (5.0 beds per 1,000 population) and Tasmania had the lowest (1.5 beds per 1,000 population).
- The NEAT target for Tasmania for 2015 is 90 per cent of patients to be attended to in Accident & Emergency (A&E) within the four hour time allocation. Current performance is between 65 and 70 per cent (AIHW 2015; DHHS 2015b). Meeting this target will impact on missed care. Tasmania also has long waits for elective surgery.
- Participants reported a broad range of beliefs about the frequency of missed care with the bulk of staff indicating that missed care is occasionally to frequently missed. Staff did not indicate whether that care is always missed or never missed at all.
- Missed nursing care can be categorised into treatment related, lower priority (emotional support, patient education and discharge planning) and high priority care (handwashing, IV/CV lines, call bells, BSL, vital signs). Treatment (intermediate) related care is the most likely form of care to be missed. These are nursing specific tasks such as feeding, turning, wound care, medications given on time, ambulation, mouth hygiene, and toileting. This finding is consistent with survey results from NSW and Victoria.

- The frequency of missed care across the three shifts does not deviate significantly from each other, in terms of not only missed care frequency but also the different aspects of missed care.
- Focused reassessment according to patient condition is missed the most frequently across all shifts, whereas staff hand-washing is missed the least frequently for the same corresponding time periods.
- Staffs' perception of how effective they are in managing their daily work tasks are strong predictors underlying the frequency of and types of missed care
- Hospital or unit characteristics including the location of the health care service (regional or city based) and whether the health unit is publicly or privately owned has no effect on missed care during any shift.
- Increased day shift missed care is associated with two factors: staff effectiveness in self-managing their work, and the staffs' level of (dis)satisfaction with being a member of a team in their own workplace.
- Nurses/Midwives who experience difficulty managing their daily work, who are not satisfied with their current job, nor their current work rosters, or who are working less than thirty hours per week and believe their clinical areas are not adequately staffed for long periods of time, indicate greater incidences of day treatment-related missed care.
- Current job (dis)satisfaction remains a significant influence on missed care during the afternoon shift, particularly with staff employed on a part-time basis.
- Staff age, particularly younger staff, are more likely to miss lower priority tasks during afternoon shifts than older staff.
- Afternoon and night shift staff link missed treatment-related care to consequence of work rosters and would prefer to change these.
- Staff holding a Bachelor's degree (or above) indicate a greater likelihood for missing higher-priority care
 tasks during the night shift than staff with hospital qualifications or at diploma level. Length of clinical
 experience is a factor in missed care; staff with less experience are more likely to miss higher-priority care
 at night.
- Reasons for missed care identified by nurses in order of magnitude are; the provision of resources for care (+0.51), communication tensions between the care providers (+ 0.34), workload predictability (+0.19), issues related to workload intensity (+0.14), and finally satisfaction levels of staff in their role as a team member (-0.15).
- Hospital location is a significant factor behind why care is missed. Tasmanian regional sector venues are more likely to be identified as contributing to missed care compared to city based health care venues.
- The average frequency of missed care is approximately the same for both morning and afternoon shifts, and is significantly less overall in all shifts compared to NSW and Victorian.
- Employer type (private of public agency) was not a factor associated with missed care in Tasmania.
- The use of rounding practices in the clinical arenas has produced (a small) negative result in both the frequencies and types of missed care.

- Staff's perception of staff (in)adequacy at ward level is related to both the frequencies and types of missed care reported by Tasmanian nurses.
- Country of origin of nursing/midwifery qualifications demonstrates significant variations (incidences) as to why care is missed in Tasmania. Australian qualified nurses indicate lack of resources as a significant reason for missed care more than nurses/midwifes obtaining their qualifications outside Australia
- Age of the staff providing care shows a mixed but statistically significant influence on missed care.
- The gender of the Tasmanian nurse/midwife is not significant in predicting the frequency of and type of missed care.
- Staff employment status (both full and part-time employment) contributes to variance (incidences) in frequencies of missed care in Tasmania.
- The complexity of staffs' (in)ability to manage daily work tasks is a significant factor in variations/incidences in missed care in Tasmania.
- Dissatisfaction with work teams is a statistically significant influence on missed care.
- Staff preferences for current roster changes demonstrates a statistically significant influence on missed care.
- Current job dissatisfaction demonstrates a statistically significant influence on missed care.
- Staffs' self-rated level of their current health is associated with increased incidences of missed care.
- In the qualitative accounts nurses and midwives highlighted the need to prioritise care. The care that was most frequently identified as missed was basic nursing care, such as mouth care, hygiene, making beds as well as additional care such as spending time with patients. Other factors were competing demands; patient acuity; deficits in knowledge, and education; and recent cuts in both nursing and ancillary staff in the public sector.
- Aged care nurses identified three central issues that contributed to missed care; the increasing acuity of
 aged care residents, RN staffing ratios and communication issues. Nurses identified a shift towards more
 residents with complex needs that increases RN workload.
- Community nurses identified staffing issues as a major factor in missed care

Chapter One: Background to the Study

From June through to the end of July 2015, the missed care survey was run through the Australian Nursing and Midwifery Federation Tasmanian Branch. Six hundred and forty eight nurses, midwives and four personal care workers responded to the survey. Similar to the studies conducted with nurses and midwives in South Australia, New South Wales and Victoria, the survey was made up of ten demographic questions, 22 questions that explored working conditions including questions to do with how workload is measured and staff assigned to the ward or unit, 21 questions concerning missed care (care that is omitted, postponed, or not completed) and 19 questions that asked the participants why they believed care was missed. We continued our study on Rounding, by including questions that explored nurses' understanding and practice of this newly introduced management practice as well as nine questions that asked nurses to reflect on whether or not they worked within their scope of practice (see Appendix A for survey). The results of the survey are outlined in this report.

The report is presented over five chapters. Chapter one provides a brief outline of recent nursing research on missed care. In this review of literature we have briefly drawn on the work of Beatrice Kalisch, but have also summarised our own work in Australia and New Zealand and included an up-date of research in this area, which as we note is becoming more sophisticated in its analysis. Chapter two outlines some of the key contextual factors of the health care system in the state of Tasmania with particular attention devoted to the proposed public health reforms mooted in early 2015. This chapter also describes the study. In Chapter three the quantitative results are presented, while an analysis of the qualitative comments forms the basis for chapter four. In the final chapter, the findings are summarised.

Missed care: a review of the literature

The MISSCARE survey was developed by Beatrice Kalisch (Kalisch, Lanstrom & Hinshaw 2009). Kalisch defines missed care as "required patient care that is omitted (either in part or in whole) or delayed" and acknowledges that it is a response to "multiple demands and inadequate resources" (Kalisch & Williams 2009: p. 1510). Following a qualitative study in 2006 where she tested her survey out with nurses for reliability she subsequently went on to test it at a number of hospital sites, wards and units both in the USA and various countries in Europe, Asia and Africa (Kalisch, Terzioqlu & Duyqulu 2012). Findings consistently point to three key factors contributing to missed care: 1) the labour resources available to provide patient care; 2) access to the material resources needed to provide patient care; and 3) relationship and communication factors that impact on the capacity to deliver care (Kalisch et al. 2009; Kalisch & Williams 2009).

Research in Australia and New Zealand conducted by Blackman et al. (2015a; 2015b) and Harvey et al. (2013) has come to similar conclusions as Kalisch. The major difference between the Kalisch research in the USA and the Australian studies has been in sponsorship. The majority of Kalisch's research has been hospital sponsored. In Australia and New Zealand all three studies published to date, as well as this one, have been administered under the auspices of the Australian Nursing and Midwifery Federation (ANMFSA) (Henderson et al. 2013; Blackman et al. 2015a; Harvey et al. 2013). The limitation here is that participants have needed to be union members to access the survey, and while the findings have been consistent with Kalisch's own results, there is always the issue of convincing politicians and health bureaucrats that union led surveys reflect more than union disenchantment.

Missed care in Australia

As the amount of research on missed care increases researchers have found it necessary to tease out in more detail what tasks are being missed, and why this might be so. Where Kalisch tended towards analysis of individual nurse characteristics as well as structural factors such as staffing levels and skill mix, the Australian team have tended to limit their analysis to structural factors, consistent with union sponsorship and also with the macro health reform agenda in Australia where the public health system employs the majority of nurses. As a consequence missed care is conceptualised as an outcome of new public management and work intensification, rather than poor team work, or the inability of RNs to delegate (Willis 2015a; 2015b; 2015c). The Australian authors have presented the issue of missed care as an obvious response to the quickening pace of nursing work, a result of accelerated patient throughput, shorter length of stay, and the array of Federal government incentive reforms, such as the National Emergency Admission Target (NEAT) four hour rule that mean patients cannot be kept in Accident and Emergency beyond the prescribed time and will often be admitted to the ward whether there is a bed available or not.

Errors of commission and omission: patient perceptions of delayed care

Publications by Kalisch available within the last 12 months indicate a wider and deeper exploration of the underlying causes of missed care. For example, while she has explored missed care in a variety of contexts, two recent publications point to examining patient perceptions of missed care and to separating missed care as an act of omission out from acts of commission (Dabney & Kalisch 2015a; Kalisch, McLaughlin & Dabney 2012). In the 2015 study, Kalisch makes a distinction between missed care and errors or commission where the health professional may have given the wrong treatment, rather than omitted it altogether, or delayed the care. Her research with Dabney suggests that omissions are also part of the quality and safety required for optimal patient outcomes, although a lot harder to track. While care is most often not omitted, it is often delayed when staffing levels are not optimal. Cognisant of the difficulty in identifying tasks of omission or delay Dabney and Kalisch (2015) interviewed 39 patients to see if they could accurately report on the care they missed or received later than requested during their hospital stay. They found that patients reported omissions in mouth care, patient information, responses to call bells, alarms, assistance with meals, pain medication and follow-up and bathing. Patients were also able to report, but with less accuracy, missed care linked to ambulation, discharge planning, patient education, medication administration, repositioning, monitoring of vital signs and hand washing. However, patients could not report with any accuracy missed tasks linked to patient surveillance, intravenous site care or patient assessment. Consistent with much of the missed care literature patients report mouth care, ambulance, discharge planning, patient education, and being listened to as tasks most often missed (Dabney & Kalisch 2015, p 3).

Using these insights from their qualitative interviews with patients they developed a patient missed care survey and delivered it to 729 patients across two hospitals in 20 inpatient units. These were primarily medical, surgical and rehabilitation units. Patients needed to be in hospital for at least three days and to be cognitively able to respond to the survey questions. Of particular interest was a sub-scale used to measure missed timeliness where patients were asked to record how long it took to receive care. Delay in care, while not an omission, is emerging in the literature, with nurses reporting that some ADL tasks may be delayed to later shifts, and nurses in ICU, theatre and other temporary units report that patients arrive not having been bathed, medicated, or fed (Blackman et al. 2015a; 2015b).

In Dabney and Kalisch (2015, p. 4) study patients were asked to report significant delays in receiving care ranging from five to 30 minutes. Patient responses to these questions were analysed against three nurse staff measures; nursing skill mix, the number of registered nurses rostered in relation to patient numbers, and the total care staff hours per patient day (all care staff including unlicensed staff such as Assistants in Nursing). There was a strong relationship between all three staffing variables and delayed care, but not in issues of communicating with patients; for this care task, only skill mix was significant. However, patient status also impacted on missed care. For example, older patients who reported better health and did not have a psychiatric diagnosis reported more timely care. In their concluding comments, Dabney and Kalisch (2015) note that the staff skill mix; the presence of registered nurses, is highly relevant to timeliness of care. Where there is adequate RN skill mix, care is provided in a more timely manner. In surmising what this means they suggest that RNs understand the importance of timely care more than lower level care workers. They also suggest the explanation may lie in the quality of the team work between these two grades of carers including the capacity of RNs to delegate to nursing assistants, and to incorporate care workers into their team. These findings are significant for the Tasmanian context, where Assistants in Nursing (AiNs) will presumably play a significant role given the service re-design underway in 2015. AiNs or care assistants have been used in community settings in Tasmania for some time, particularly in the aged care sector.

The findings linked to the importance of team work reflect earlier work by Kalisch. For example, in 2009, she examined the impact of teamwork on missed nursing care, arguing that it was not the result of the number of nurses rostered on a ward at any one time, but the skill mix (Kalisch, Lanstrom & Hinshaw 2009). In this study she found that RNs were more likely than nurse assistants to report missed care and to associate it with an unexpected rise in patient volume or acuity, increased admissions and discharges, and access to material resources. The nature of teamwork was also the focus of the 2010 study with Kyung (Kalisch & Kyung 2010). Results from this study point to poor team work between registered nurses and nursing assistants, although a later study pointed to flexibility in staffing, rather than skill mix, with several other variables factored into the explanations for missed care, including the capacity for nurses to delegate, their leadership skills, and the overall environment of the unit (Kalisch, Gosselin & Choi 2012).

Missed care during times of health care reform

Of relevance to the Tasmanian context is a study conducted by Castner, Yow-Wu and Dean-Baar (2014) examining the impact of hospital mergers on missed care. While no hospital mergers occurred when the Tasmanian survey was live, early in 2015 the Tasmanian government announced a major health reform agenda that may result in the closure of some smaller hospitals or the amalgamation of services to achieve increased volume of patient throughput (DHHS 2015a). Castner et al. (2014) study examined missed care in a series of hospitals undergoing mergers making a distinction between missed care caused by individual nurse differences (education, supply problems, communication, and errors of commission) and what they coined unit context (unit workload, skill mix, unit type, case mix, administration errors, falls, staffing ratios and experience). While we find these distinctions somewhat counter intuitive we do find the findings consistent with our own observations. As the authors note, Kalisch's research demonstrates that unit level factors and individual nurse factors are both contributors to missed care and there is ample evidence of related factors during hospital merger such as re-admissions following early discharge and reduced staffing levels that point to missed care.

Results from the Castner et al. (2014) study also demonstrate that units such as Rehabilitation, and Emergency departments have the highest rates of missed care, with Theatre and Recovery rooms demonstrating the least,

along with ICUs. This is not surprising given that Intensive Care Unit (ICU) and Recovery rooms almost always have nurse-patient one-to-one ratios, while other wards do not. They also found a relationship between RN level variables such as nurse experience, education, workload, supply problems, communication and errors of commission. Interestingly, the first study in Australia (Henderson et al. 2013), identified resource issues as a major factor in missed care. Both the Castner et al. (2014) and the Blackman et al. (2015a) studies confirm Kalisch et al. (2015) observation that nurse skill mix is key to reducing missed care as is nurse communication, although Blackman et al. (2015a) is less focused on communication as a factor. As noted above, Kalisch links communication to the employment of lower grades of care workers and suggests that RNs fail to adequately lead and delegate to these workers. Castner et al. (2014, p. 16) attribute the majority of missed care to the interplay between structural variables and individual nurse variables noting that as workload increased so does missed care; as optimal skill mix reduces so does missed care. An intriguing finding from this study was that highly experienced nurses noted more missed care than younger nurses and these same nurses reported major issues with supply and communication problems. The authors ask is this reflective of the nurse's experience, or do they miss more!

While Australian studies have argued that missed care emerges from work intensification that in turn, is the result of serial health care system reform instigated to either reduce budgets or increase profits (see for example, Willis et al., 2015) in the USA the research literature takes missed care as a given and is now moving to link it to patient satisfaction measures (Lake et al. 2015; Kalisch, McLaughlin & Dabney 2012; Kalisch & Dabney 2014). This development is partly driven by the requirement for all hospitals in receipt of Medicare and Medicaid funding to report high levels of patient satisfaction measured through the publically available National Quality Forum, HCAHPS surveys-data. The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) surveys are sent to patients once they are discharged and request information on satisfaction with their hospital stay. One component of the survey asks patients about the care provided by nurses although it does not specifically request information on missed care, other than delayed medications. What the data does show is that patients take careful note of the number of nurses on the ward, and the general ward environment. Both Lake et al. (2015) and Kalisch and Dabney (2014) report a correlation between nurse's perceptions of missed care and the patient's evaluation of their hospital care. These studies also show that nurses tend to prioritise clinical care over the interpersonal care, despite the fact that these are perceived by patients to be primary nursing roles.

The managerial response to missed care: rounding

Missed care is an issue of risk and quality assurance. For this reason hospital and nurse managers have introduced Rounding onto wards and throughout hospital networks as a way to ensure regular nurse patient surveillance (Dix 2012). Rounding involves nurses carrying out regular and standardised checks on all patients at set intervals to assess and manage their fundamental care needs. This is usually done on an hourly basis and is promoted as an opportunity for the nurses to involve the patient in their own care, and for them to ensure all is well (Tea, Ellison & Feghali 2008). It is also promoted as a strategy for reducing nurse workload as evidence suggests it reduces the number of call bell, approaches to the nurse's station and patient falls given the nurse has regular contact with the patient (Helm, 2009; Studer Group 2007; Krepper et al. 2012).

Despite these claims the evidence is ambiguous. For example, while Bougault et al. (2008) found that rounding was associated with a reduction in falls, Tucker, Bieber, Attlesey-pries et al. (2012) report that while these events reduced in number during rounding trials they returned to previous rates once the focus shifted away from monitoring nurse rounds. More insightful is the research by Woodard (2009) who argues that the

full impact of rounding is dependent on the RN experience; where nurses are experienced, rounding enhances patient safety, where they are not, there is little evidence of increased patient safety. Given the continuing use of Rounding, the survey asked nurses a number of questions on the practice in order to evaluate its impact, along with questions to do with their scope of practice and capacity to delegate.

Chapter Two: Study Methods and Context

The survey approach

The MISSCARE survey was conducted in Tasmania in June and July of 2015. Minor modifications were made to the survey, particularly the first section that asks nurses to provide data on their work situation, experience and education. This was done to reflect the nursing and midwifery context in Tasmania. The first three questions sought demographic information on the participants. This was followed by five questions directly related to the organisational context. Questions 9 to 14 sought information about qualifications and employment status, with questions 15 to 26 exploring the type of shifts worked, as well as over-time. Included also in this section were questions dealing with presenteeism; working while sick. Our colleagues in New Zealand are exploring this issue in more depth (Buckley et al. 2015). Questions 29 through to 31 sought information on staff allocation tools and models, as well as admission and discharge issues that might impact on missed care. The remaining questions in this section dealt with nurse's overall satisfaction, and whether or not rounding were practiced. Sections two and three of the MISSCARE tool asked nurses and midwives to identify the care tasks most often missed and why they thought this was the case. In the final section, questions explored the impact of interdisciplinary care, and the capacity of nurses to delegate tasks to other staff. The survey is presented in full in Appendix A. The study was approved by the Social and Behavioural Research Ethics Committee (SBREC) at Flinders University on 2nd June 2015.

Table 2.1 provides a comparison of nursing in Tasmania with survey participants. As can be seen, the percentage of females to males mirrors the demographic profile, with lower numbers of ENs, midwives and Nurse Practitioners completing the survey.

The survey was administered by the Tasmanian Branch of the Australian Nurses and Midwifery Federation (ANMF Tasmanian Branch), with publicity and recruitment via the branch's web page. The survey was administered online via *Survey Monkey*. The Branch opened the survey in early June displaying it on the front of the home page. The letter of introduction assured members of confidentiality. Approximately 10.4 per cent of the ANMF Tasmania membership completed the survey (6227 members). This was a higher percentage than achieved in South Australia, or Victoria. It is possible that the current public health system led reforms may have been an influencing factor in these robust participation numbers.

SPSS Version 20 was the tool used to analyse the quantitative results that are presented in Chapter three. The 76 qualitative responses were loaded onto NVivo and are presented in Chapter four. Chapter five, brings together both the quantitative and qualitative analysis together with the missed care literature.

Table 2.1: ANMF Tasmania membership, survey participants and total Tasmanian nurse profile

Item	Tasmanian total nurse		ANMF	Survey respondent	
			Tasmania	percentage of	
			Membership	membership	
	Number	Percentage	Number	Percentage	
Number of nurses	7986	100	6227	648 = approx. 10.4% of	
				total membership	
Ratio females to	6429/792	90% to 10 %	6008 to 665	90.21% to 9.79%	
males					
Numbers of nurses in Tasmania, ANMF members and survey respondent					

Registered nurses	6433	80.5 %	5166	78.3 %
Enrolled	1426+127	19.5 %	1061	12.92 %
Midwives	647		124	7.89 %
Nurse Practitioners	25	0.31 %		
PCA			322	0.89 %
Public Private			3822 to 1387	64.27% to 34.03%
Aged care/other			1276 to 188	

The study context

Any study of the health sector in Tasmania needs to take account of two pertinent factors; the low sparsely spread population throughout the island and the climate. Tasmania has a cool temperate climate, with rain spread throughout the year. While summers can be hot with temperatures in the 30°, summers can also be cold. Snow falls in the mountains. Hobart, the capital city of Tasmania, is in a rain shadow that makes for dryer weather and impacts on population. The low population base in turn impacts on a range of other development factors; examples include water supplies, transport, education and health. The population of the state of Tasmania is under one million at 515,235 as of June 2015. It has the lowest growth rate of any state or territory with higher numbers of migration out, than immigration into the state. While the pressures on the health care system in the state of Victoria are linked to rapid and unexpected population growth, the issue for Tasmania is providing services to a population spread over a wide geographical area. For example, Victoria's population grew by 0.35 per cent in the three months September to December 2014, while for Tasmania the growth was 0.05 per cent (ABS 2015a).

What else separates Tasmania from the mainland?

Pressure on a public health system is also a result of the overall health of the economy and the population usually summarised under the term social determinants of health. The unemployment rate in Tasmania is seven per cent, the second highest across all states and territories. Approximately 23,934 Tasmanians are seeking work. Only South Australia has a higher rate at just over eight per cent (Australian Government 2015a). The proportion of the population over the age of 65 is higher than the Australian average 15.6 per cent to 13.5 per cent, with rates for those over 85 years of age at 2.0 per cent to 1.8 per cent. The medium age of the population is also higher at 39.9 years versus the national average of 36.9 years of age. Life expectancy at birth for males is 77.9 years while the national rate is 79.3 years of age. For females the average is 82.2 years of age with the national average rate is 83.9 years of age. Education shows a similar lower rate than the Australian average with NAPLAN results slightly lower than the Australian average for reading at Year 5 level. Retention rates at year 10 through to year 12 are 70.7 per cent compared to the national rate of 78.5 per cent (ABS 2015b).

The Tasmanian health care system

Tasmanian health care like the rest of Australia it is a mixed system. There are 27 public and 14 private hospitals in the State. Four of the public hospitals are major providers, the other 23 are rural or community based. These smaller hospitals offer varying services from residential aged care, emergency, primary care and sub-acute to same day surgery. The primary care system has 167 general practices employing 590 GPs and 320 Practice Nurses. Tasmania has 2141 allied health practitioners, 676 pharmacists operating in 148

pharmacies and 38 residential aged care providers operating 78 facilities. There are 20 community providers for aged care. Ninety-five per cent of all public hospital admissions are in the four major public hospitals; Royal Hobart Hospital (RHH), Launceston General Hospital (LGH), North West Regional Hospital (NWRH) and Mersey Community Hospital (MCH). The limitations of clinical services in Tasmania is best illustrated by the fact that the NWRH has no permanent oncologist, but must rely on a fly-in, fly-out locum from the Peter MacCallum Cancer Centre in Melbourne, Victoria. The *One Health Care System* proposes increases in travel for patients as well as health professionals, including in-sourcing from other states (Department of Health and Human Services [DHHS] 2015a).

Health outcomes for Tasmanians are below national averages. This includes life expectancy rates for both males and females, higher percentages of the population who smoke, are obese or overweight, as well as the prevalence of chronic conditions (DHHS 2015b). Health system performance in Tasmania is also below peer hospitals in other states, with outcomes for patients influenced by where they live. For example, the LGH and RHH have longer waiting lists than the recommended clinical time than the other two hospitals in the state and Tasmania has the highest rate of adverse events per thousand separations, the highest rates of unplanned readmission for some procedures, and the costs per services outstrip other states. Medical salaries are also higher than in other states. This is partly explained by the employment of locums in regional, rural and remote areas, rather than having patients come to the four major hospitals where specialist services are concentrated (DHHS 2015a, p. 15). For this reason, one of the major reform directions is to organise the sector into one system, rather than three health organisations with specific hospitals operating as centres of excellence. Delineating the role of all existing services comes under the Tasmanian role delineation framework (TRDF). Under this framework public hospitals have been categorised according to a six level model of complexity for patient care and volume. Complexity and volume underpin the level of risk, and as a consequence the patient profiles and the level of services provided. These reforms follow on from earlier structural adjustments made in 2012-2013 when the acute hospital sector was separated within the DHHS for the purposes of introducing the funder/purchaser mode of operation (Tasmanian Government 2014). Service agreements are in place for the three health organisations to deliver services for the DHHS, although under the more recent reforms these three separate services will be amalgamated into one.

Tasmanian hospitals are also behind in meeting other Commonwealth imposed targets that link funding to incentives. For example, while they have improved Emergency Department waiting time, Category 3 presentations remain below 65 per cent, the National Emergency Access Targets [NEAT] targets have not been met and are below 70 per cent, and elective surgery waiting times [medium 45 days], National Elective Surgery Targets [NEST] targets are below 50 per cent, and less than 60 per cent of Category 2 admission occur within 90 days (AMA 2015; AIHW 2015).

Health care reform in Tasmania

One of the abiding issues in the four studies conducted to date on missed nursing care in Australia has been to examine the impact of new public management (NPM) strategies on the public health care system in particular, as well as similar reforms in the private sector (Henderson et al. 2013; Blackman et al. 2015a, Willis et al. 2015a). The focus on Rounding and benchmarking between peer hospitals in the NSW Study, and staff-patient ratios in Victoria are three examples (Henderson et al. 2013; Blackman et al. 2015; Willis et al. 2015b). All four MISSCARE surveys have been conducted at a time when the Federal Government has reduced funding to the states and territories for the running of the public hospital system. As the 2015, AMA Report Card (2015) notes, Commonwealth funding to the states reduced by 1.8 billion between 2011-2015 and

the new proposals to come into place in 2017-2018 which link funding to population, will have a severe impact on states like Tasmania and South Australia, where throughput has been high, but the populations numbers are less and older relative to other states.

The Tasmanian study has added to the theoretical work on contemporary approaches to NPM in health care in a unique fashion, specifically through the current state government led health system reform agenda. The approach taken by the Tasmanian government exhibits a number of characteristics also found in other states in Australia (e.g. South Australia) and in the National Health Service (NHS) in Britain and the more radical reforms in the republic of Ireland. These can be best summarised under the banner of Transforming Health (see the Irish Ministry of Health 2012; Naylor, Imison, Addicott et al. 2015). While many of the old strategies of NPM are evident in these reform agendas such as efficiency, the reduction of duplication and increased productivity, the strategies have moved away from managerially led re-designed care approaches towards a stronger focus on evidence based medicine as the key to care re-design. Services are now rationed in the interest of concentrating medical expertise in fewer sites in order to reduce risk and create a climate of quality and excellence. The concept of universal health care equity and access, which were the cornerstone of the 1983, Medicare agreements first brokered under the Hawke/Keating governments have given way to quality and risk reduction, and a stronger focus on medical expertise. Taking a public health care system in this direction has consequences for patient and health professional access to services, particularly in Australia where distances between sites can be vast. While laudatory, the assumption that digital ehealth technologies can overcome these distances has yet to be proven. The low population base also makes the provision of adequate public transport difficult given the high costs of public provision.

The relatively small population in Tasmania provides opportunity for a cohesive health care system. This is the thrust of the current reform agenda; *One State, One Health System, Better Outcomes program* (DHHS 2015a). Tasmania is characterised by having only one University, one other research centre (the Menzies Institute for Medical Research) and only four major public acute hospitals. The current reform agenda seeks to bring these four hospitals and the recently formed three health organisations under one structure, known as, the Tasmanian Health Service, rather than three regional systems. The focus will continue to promote efficiency over duplication of services, and a concentration of quality and expertise, however, while equity of access will continue to be important, it will be a secondary consideration. The new directions in transforming health seek to create concentrations of expertise. The argument being that this reduces risk, while at the same time avoiding duplication. The trade-off is that patients and families will have to travel; in Tasmania this also means clinicians will have to travel. The distinctive feature of the Tasmanian endeavour is the clear articulation of the principles behind the *One State, One Health System* agenda. These are best summed up in the White Paper as:

high quality health services that are only delivered where appropriate support services are available; access to better care, as opposed to better access to care, and more efficient services with less duplication, freeing up resources to provide more services that the community needs and cannot currently access (DHHS 2015a, p. 6).

In summarising, these health system reform goals two key principles emerge. The first is that the focus has shifted away from dispersed services spread throughout the state to concentrating services in a limited number of hospitals, the rational being the need to ensure evidence based practice and the concentration of medical expertise and volume of service for ensuring and maintaining expertise. The key to understanding this

approach is to distinguish between evidence and experience. Traditionally there has been an assumption that the clinical decision making of a health professional was based on either years of experience or the evidence. The transforming health agenda, allows clinicians to operate by combining the two; the critical mass of patients, and the concentration of services in one site creates the climate for researched based clinical practice and the volume of patients to ensure adequate experience. The consequence of this approach for a state as small as Tasmania is that the principle of equity of access is tested. The White Paper acknowledges that in a state as sparsely populated as Tasmania, and the vast distances between expert health facilities will result in problems of access for both patients and health staff. As the report notes:

the implementation of these reforms will result in increased movement of both patient and health professionals, in particular across the North and North West, as the system becomes more integrated and all acute hospital facilities are more effectively utilised (DHHS 2015a, p. 9).

In recognition that the reforms challenge the principle of equal access there are proposals to improve transport as well as IT systems and telehealth. It is within this context that nurses and midwives in Tasmania responded to the MISSCARE survey.

Private health care in Tasmania

Obtaining data on private hospitals and facilities in Tasmania is difficult. The *MyHospital* web site provides data on the four Calvary Health hospitals in Lenah Valley, South Hobart, and two in Launceston. Only the Lenah Valley has an emergency department. Approximately 45.1 per cent of Tasmanians have private health insurance for hospital cover, with 48 per cent singles policy and 52 per cent family policy. Around 51.6 per cent have extra coverage. Average gap payments are within the mid-range when compared with other states and territories (Australian Government Private Health Insurance Administration Council 2015). The Australian wide figures are 47.3 per cent for hospital cover. Only Victoria and the NT have lower private health insurance population rates. These figures are slightly up on 2009 data when insured persons were 43.2 per cent and those with extra cover was at 47.9 per cent (Australian Government Private Health Insurance Administration Council 2009).

Health care and nursing and midwifery in the Tasmanian public and private sectors

Estimating the number of nurses and midwives in Tasmania is complicated by the fact that the Department of Health and Human Services restructured in 2013-2014 with the formation of three Tasmanian Health Organisations that provide acute and, rural hospital, mental health and community nursing services, which are now proposed to be re-amalgamated into one service (DHHS, 2015a). This effectively separated acute from primary health and social services, although at the time of writing only Child Health nurses remained outside of Tasmanian Health (Tasmanian Government, 2014). According to the Australian Health Practitioner Regulation Authority Nursing and Midwifery (AHPRA) statistics (March 2015) there are 7989 registered [6429 female to 792 male] and enrolled nurses [1426 female to 127 male] plus 47 with dual qualifications in Tasmania with around 87 of these not practicing. There are 647 nurse/midwives with seven not practising and 17 midwives with a single qualification. Tasmania has two per cent of the Australian EN and RN, and midwife population. Nurse Practitioner numbers are 25, with five endorsed to deliver scheduled medicines in remote regions. Only three Midwife Practitioners are endorsed to practice in Tasmania and only four nurses have qualifications that limit their practice to a particular specialty – mental health. Approximately 15 males have midwifery and nurse qualifications. The percentage of females to males is roughly 10 to 90 per cent (AHPRA 2015). Approximately 2807 nurses work in the public sector. According to the AIHW (2014) data in 2012, Tasmania reported the highest average age of nurses at 46.5 years of age.

It is not possible to examine the industrial relations arrangements for all nurses in Tasmania, as while there is only one award there are a numerous agreements. For nurses working in the state health care system, the most recent award was signed in 2014. Within this award nine grades exist extending from Assistants in Nursing (AiNs) through to ENs and to Executive Directors in Nursing. Grade six RNs are Clinical Nurse Consultants, Clinical Nurse Educators or Research/Project Nurses. Grade seven RN's are Nurse Unit Mangers and Grade eight RNs are usually Assistant Directors of Nursing or Directors of Nursing, while Grade nine RNs Executive Directors of Nursing or equivalent. All ENs work under the supervision of a RN, although further education may limit this supervision. Allowances are payable for higher education qualifications for all nurses and midwives. Full time RN/ENs/midwives work a 38 hour week. The Enterprise Bargaining agreement makes provision for nurses to refuse to work overtime where they believe it is unreasonable to do so. Examples would include where the overtime work would be a risk to their health and safety, or other personal circumstances. There is also provision for on-call allowances and recall to work. Consistent with the Enterprise Bargaining legislations the agreement provides provision for consultation when the employer proposes major workplace changes. This provision is neatly summed up under:

(b) Consultation is not joint decision making or a barrier to the prerogative of management to make decisions; nor is it simply advice on what is about to happen. It is a process that informs affected employees about proposed change and provides them with a genuine opportunity to influence the outcome before a final decision is made (Tasmanian IR Commission 2014 p 102).

Similarly there is a provision for workload management that binds supervisors to ensuring that the work allocated to nurses and midwives can be performed within the allocated time (Tasmanian IR Commission, 2014, p.102). Part ix of the Agreement deals with work life balance (Tasmanian IR Commission, 2014).

Measuring nurse and midwife work intensity in Tasmania

Nursing workload in Tasmania is based on the Nursing Hours Per Patient Day [NHPPD) model that was introduced in 2003. Responsibility for staffing rests with the Level 3 Nurse Manager (NUM) and is defined as a business and a resource management activity. As well as the business focus, staffing is seen to be directed by principles that are evidence-based, meet effective patient outcomes and ensure safe and quality care on the one hand, and provide a balanced and flexible work load for nurses, on the other. Nurse managers take account of the demand side (service demands, activity, patient acuity, required performance targets, the technology available in the site and any other factors in assigning staff), and then evaluate the outcomes in the light of the evidence behind the model of care in practice and the structures in place to support the nursing approach. For example, nurse managers are encouraged to select models of nursing care that are both evidence based in terms of patient outcomes, but also financially efficient. Issues such as budgets, the available skill mix, and employment conditions also impact on staffing. One of the issues for nurse staffing in Tasmania is the geographical isolation of many centres, others include the various health acts, service agreements with the Health service, the DHHS strategic objectives, or the specific licensing demands of the nurse specialisation, and broader demographic, cultural and population health factors (DHHS 2011).

The number of nurses rostered is determined by the total number of patient activities required over the 24 hour period. This in turn, is driven by the factors outlined above, as well as patient acuity, their diagnosis, and the skills mix of the nursing staff. As noted above, one of the issues for Tasmania's smaller hospitals is that more staff may be required for reasons of safety, than patient demand. The e-Staffing tool allows the Nurse Unit Management (NUM) to record and create staffing profiles. NUMs are advised to also evaluate the staffing

levels and skill mix in terms of patient outcomes. This is done through complaints, patient satisfaction audits, incidents, infection rates, waiting time, and nurse sensitive outcomes; and through staff measures such as absenteeism, and staff accidents, turnover, staff satisfaction and with comparing numbers of staff rostered with similar units (DHHS 2011).

There are a number of media reports surfacing now that the Tasmanian government is in the middle of a transforming health agenda (Goddard 2015a; Goddard 2015b; ABC 2014a; ABC 2014b). These are not new. In 2011, the ANMF Tasmanian Branch prepared a submission for the Parliamentary Inquiry into Cost Reduction Strategies of the Department of Health and Human Services in response to a newly introduced health plan that created the three health organisations as separate entities from the DHHS and moved to funder/provider funding mechanisms (ANF Tasmania 2011). In this report, the union noted the increases in overtime, the number of nurses working double shifts and the failure for these incidents to be reported. The union also highlighted the increase in patient acuity and the impact this had on safe working levels as one of the factors in the increase in overtime pointing to the impact of structural and funding changes on rural hospitals. This submission raised the relationship between staffing levels, infection control, delayed elective surgery and the many non-nursing duties nurses have to complete in short stay units throughout the state (ANF Tasmania 2011).

The most recent report by Goddard (2015a) points to a 10 per cent increase in patient load, budget cuts and a reduction in the number of doctors (21 %) and nurses (6 %). However, figures used by Goddard taken from Hansard (Goddard 2015b) paint a slightly different scenario. Table 2.1 below indicates a reduction in medical staff, but an increase in nursing staff over the 12 month period March 2014 to March 2015. As can be seen there has been a significant reduction in the number of salaried doctors employed within the public health system. What these figures do not indicate is the increase in patient volume. While data on patient volume is not available for this time period, data from the previous year shows that the increase in weighted separations from 2012 to 2014 was +9.52 per cent. Estimates put the average increase in patient load for doctors at just under 20 at 19.37, with a concomitant increase in nursing at 2.38 per cent. When emergency admissions are added to this, the increase in presentations is 2.3 per cent (Goddard 2015b).

Table 2.2: Full time equivalent medical officers and nurses, Tasmania, June 2014 to March 2015 (Hansard, House of Assembly, 11 June 2015)

Health Professional	2014	2015
Salaried doctors	804.28	763.07
Change		-31.88
Visiting doctors	39.93	41.31
Change		+1.38
Nurses	3253	3288
Change		*35.41

The DHHS's own data supports the media reports on the increased patient throughput in Tasmania and accompanying reduction in medical staff. Table 2.3 outlines the increase in separations, weighted separations, and Emergency Department (ED) presentations. As a result of the increase in ED presentations, there is a reduction in the elective surgery rates and an increase in the number of patients waiting for elective surgery.

As consequence the median waiting time increased for all four hospitals and the capacity of the system to meet the category targets deduced.

Table 2.3: Increase in load across the four public acute hospitals in Tasmania (DHHS 2015b)

Item	RHH	LGH	NWRH	MCH
Separations	0.6	8.5	11	-3
Weighted	0.1	4.3	8.5	-1.8
separations				
ED presentations	4.5	0.9	3.7	-2.3
Elective surgery	-17.8	-5.6	2.3	0.7
increases/decrease				
% number of	51.7	6.9	-12.6	14.1
patients waiting				
for elective				
surgery				
Waiting time for	3 days	21 days	9 days	11 days
elective surgery				
Increases in	0.4	9.8	-2	-5.3
outpatient waiting				
for list				
Increase in time	16 days	2 days	8 days	8 days
on waiting list				
Cat 1				

Overall work intensification in the Tasmanian context of health reform

The difficulty of providing an overview of increased patient volume for Tasmania is that data is not available for the private hospital sector. The AIHW reports that this is for commercial in confidence reasons. As a consequence any data that is available is rolled up with the two Territories; ACT and NT. A second confounding factor is a shift in how separations within the mental health sector are now reported. These figures were separated from the acute sector, making longitudinal comparisons difficult. What is available shows a clear increase in patient separations across the 2010 to 2014 period. For example, the number of separations between 2009 and 2013 increased by just under 3 per cent with a dip in 2010-11 period. Same day acute separations between 2012-2014 increased by 7.6 per cent. A third factor limiting comparisons with other states or across time is the remoteness of many hospitals. In 2013–14, the number of public hospital beds per 1,000 population varied across remoteness areas, from 2.4 beds per 1,000 population in the major cities to 3.5 beds per 1,000 in remote areas (AIHW 2014). New South Wales has the highest average available beds per 1,000 population in remote areas (5.0 beds per 1,000 population) and Tasmania had the lowest (1.5 beds per 1,000 population).

Built into Federal Government funding formula for the states and territories to manage the public acute hospital sector are a range of incentive funds linked to national targets. The National Emergency Admission Times (NEAT) and the National Elective Surgery Times (NEST) are the two most challenging for the states.

By 2017 the proposed shift from Activity Based Funding (ABF) to a mix of ABF and population based funding will also impact on Tasmania given the low population base. The NEAT target for Tasmania for 2015 is 90 per cent of patients to be attended to in Accident & Emergency (A&E) within the four hour time allocation. Current performance is between 65 and 70 per cent (AIHW 2015; DHHS 2015b). The impact of this under-achievement on nursing missed care was eloquently outlined in the NSW study (Blackman et al. 2015a), where nurses reported that admitting patients within the four hour rule resulted in these patients being assigned to a ward that did not specialise in their condition making these patients outliers, either assigned to already over-crowded wards, or put in rooms not equipped for patient care.

In a similar vein NEST targets in Tasmania are also not being met. Table 2.3 below outlines the percentage of patients in all three categories who are on the wait lists longer than the clinical prescribed time and the median number of days they waited.

Table 2.4: National elective surgery times (NEST) for Tasmania (DHHS 2015b)

	Percentage of patients on list	Days waited
Category 1	76	16
Category 2	43	109
Category 3	61	286
Total	59	50

Concluding comments

As the above description of the health care system in Tasmania indicates, the state is at the cross roads given the proposed reforms that form part of the White Paper (DHHS 2015). There are innumerable opportunities for the nursing profession, but also the possibilities of new workload pressures. The proposal by the ANMF to introduce Nursing Performance Score Cards available via a public dashboard may or may not result in increased productivity and efficiencies without intensifying the nursing labour (ANMF 2015).

Chapter Three: Results of the Survey

Demographic and descriptive results

There are 6227 registered, enrolled and assistants in nursing (AiNs) members in the ANMF in Tasmania. Approximately 648 members responded to the survey. The majority of the results are presented in graph form for ease of interpretation. As is the case with many surveys, a small number of participants did not complete some of the necessary questions. As a result the number who completed the full survey was 648. In presenting the data we have identified those tasks most often missed or rationed and where relevant, differences in missed care between shifts. We continued our investigations on the use of rounding as a management tool for preventing missed care, and also asked nurses to comment on any staffing tool used in their unit.

Figure 3.1 below provides data on the gender breakdown of participants. These figures are consistent with the overall numbers for the state. AHPRA notes that for Tasmania the ratio of females to males is 90.09 per cent to 9.91 per cent. From Figure 3.1 below, it can be seen that female respondents outnumbered male nursing staff by a ratio of almost 10 to 1 with 9.79 per cent of respondents male. The age distribution of respondents differs from national figures for the nursing and midwifery workforce with a higher percentage in the 45 to 64 cohort. For example, in Victoria the percentage of participants responding to the survey in this age bracket was 56 per cent, while for Tasmania it is 70 per cent. This is consistent with the demography for Tasmania where the nursing workforce is older than mainland states with the highest average age at 46.5 years (AHPRA 2015). The youngest and oldest age categories of nurses/midwives are the two minority age groups of this sample with just under of 70 per cent of respondents aged between 45 and 64 years. The remaining 25 per cent of the respondents were aged between 25 to 44 years of age.

Figure 3.1: Gender composition of Tasmanian nurse/midwife respondents.

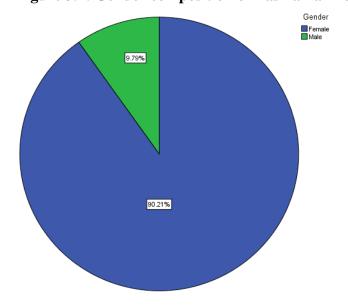
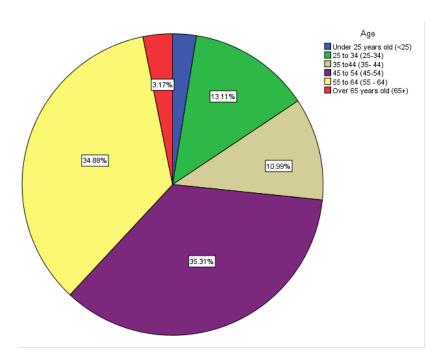


Figure 3.2: Age distribution of Tasmanian nurse/midwife respondents.



Employment characteristics

Figure 3.3 indicates that twice as many public sector nurses/midwives responded to the survey compared to private sector employees with less than two per cent of staff indicating they were employed by an agency. The number of nurses working in the public sector is listed as 2807, while the total number of nurses is 7989 (ANMF membership numbers are 3822 to 1387 with aged care an additional 1276). From the Figure 3.4 it can be seen that just over 30 per cent of respondent Nurses/ Midwives are employed in large hospital environments with a further 20 per cent indicating employment in medium sized acute care settings. The residential aged care sector was the next most frequently employed venue for respondent nurses (16%). As demonstrated in Figure 3.5, just under half of the respondents were employed in the Southern regions of Tasmania, followed by the North then North-West regions.

Figure 3.3: Workplace sector type distribution of Tasmanian nurse/midwife respondents.

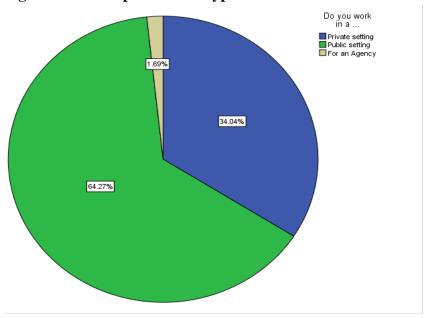


Figure 3.4: Type of health care employment of Tasmanian nurse/midwife respondents.

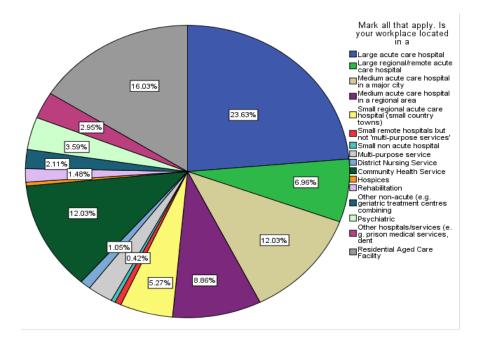
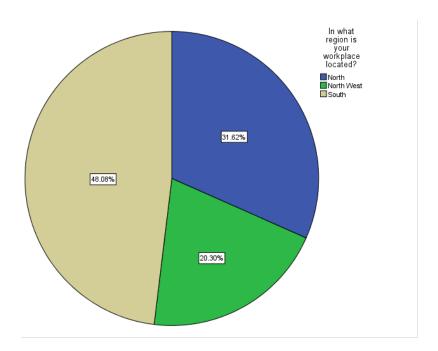


Figure 3.5: Region of employment of Tasmanian nurse/midwife respondents.



Qualification characteristics

Seventy per cent of respondents were registered nurses with hospital based training qualifications (22%), with (5%) with Diploma or degree level qualifications (33%) with an additional 1.8 per cent of staff with qualifications on entry, other than nursing. Of the total cohort, fewer than 10 per cent of respondents were qualified midwives (7.89 %). Approximately nine per cent of respondent nurses held enrolled nurse status, the majority of whom held the equivalent of a Diploma level qualification (7 %) with a remaining having either hospital and or TAFE acquired EN qualifications (Figure 3.6). More than 90 per cent of respondents obtained their professional qualifications in Australia (see Figure 3.7) while proportionally more Tasmanian midwives (26%) gained their professional qualifications overseas (see Figure 3.8). Data does not indicate if the hospital based registered nurses cohort went on to convert their qualifications at degree level.

Figure 3.6: Types of qualifications held by the respondent Tasmanian nurse/midwifes.

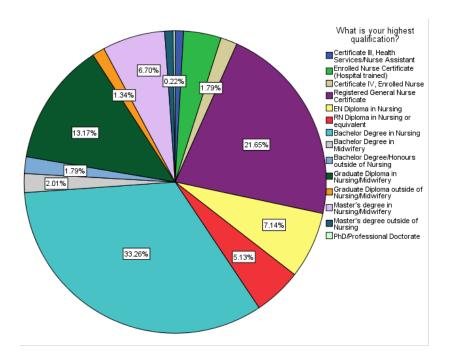
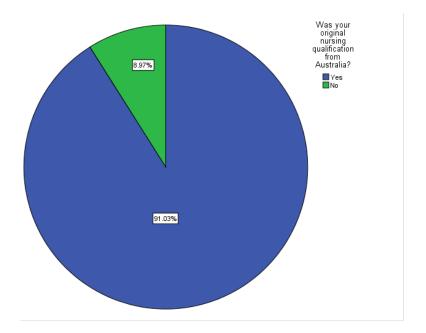


Figure 3.7: Country of origin of nursing qualifications held by the Tasmanian respondents.



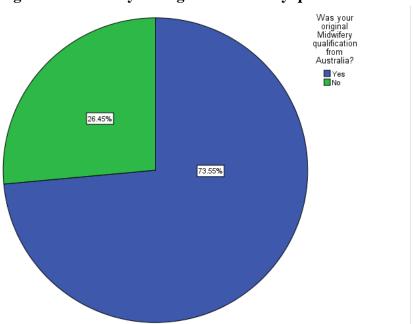


Figure 3.8: Country of origin of midwifery qualifications held by the Tasmanian respondents

Working conditions

Figure 3.9 demonstrates that nearly 30 per cent of all surveyed staff are employed on a fulltime basis and as permanent members of the health care team. The majority of staff however are employed (nearly 70%) on a part-time basis and again the majority of that cohort on a permanent basis (68 %). Figure 3.10, identifies that 60 per cent of nurse/midwives work over 30 hours per week. Just under a quarter of respondents indicated that they work up to 30 hours per week with the remaining nurses/midwives reporting that they work under 24 hours per week. Figure 3.11, shows that less than one quarter of respondent nurse/midwives indicated a preference for a change in their current work schedule with the bulk of the staff hoping to stay with their current schedule. This figure is consistent with the findings from the three other studies on missed care in South Australia, NSW and Victoria; nurses and midwives report that they are happy with their current roster arrangements (Henderson et al. 2013; Blackman et al. 2015; Willis et al. 2015).

Figure 3.9: Employment status held by the Tasmanian nurse/midwifery respondents

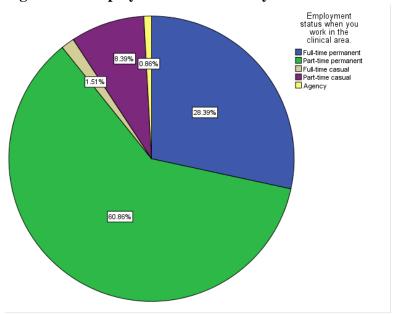


Figure 3.10: Hours of weekly employment undertaken by the Tasmanian nurse/midwifery respondents

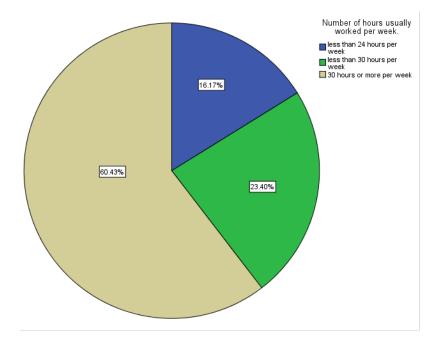
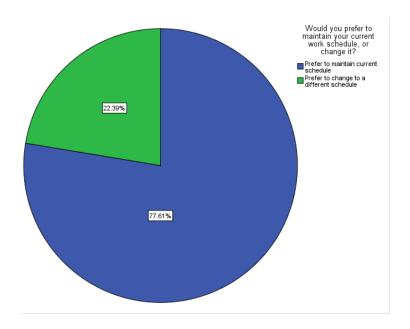


Figure 3.11: Tasmanian nurse/midwifery respondents' preference for their current work schedule.



Nursing experience

Figure 3.12 illustrates that almost 40 per cent of respondents have over twenty years of professional experience. This is greater than data obtained from Victoria where 32 per cent of nurses and midwives indicated they had been practicing for 20+ years. Apart from the small numbers of staff who indicate up to a single year of experience (or less), there are almost similar ratios of staff numbers for each of the professional experience categories (approximately 7 % of the remaining respondents per category).

Figure 3.12: Length of professional experience held by Tasmanian nurse/midwifery respondents.

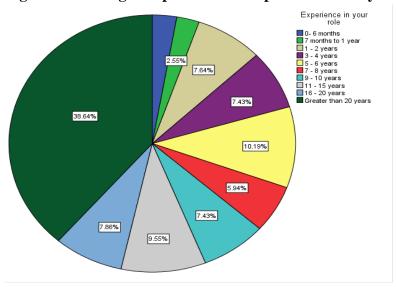


Figure 3.13: Estimates of self –rated health status held by Tasmanian nurse/midwifery

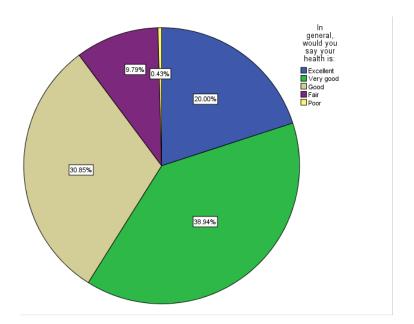
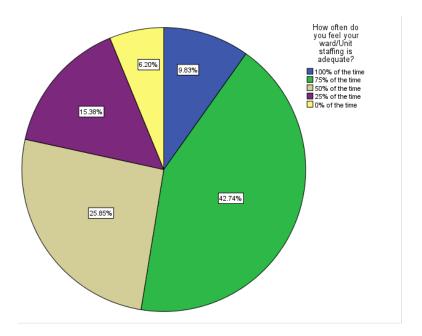


Figure 3.13 indicates that just under 69 per cent of respondents believed their own health to be good to very good with a further 20 per cent indicating excellent health. Just over ten per cent of staff believed their health to be of fair quality with a minor number indicating there are of poor health.

Figure 3.14: Estimates of staffing adequacy in clinical areas as indicated by Tasmanian nurse/midwifery respondents.



Approximately ten per cent of staff believe that staffing in their clinical area is adequate all of the time, while six per cent are of the view that it is not adequate at any time. The majority of staff indicated that staffing was adequate for 75 per cent of the time, with the remaining quarter of all respondents, indicating that staffing was adequate for half the time.

Figure 3.15: Tasmanian nurse/midwifery respondents' estimates of employing agencies utilising a staffing tool.

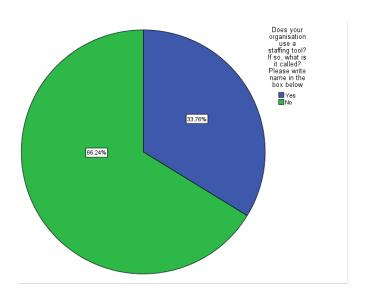


Figure 3.15 shows that only one third of respondents noted that their employing agencies used a staffing tool (these are public sector nurses), and similar numbers have indicated that (see Figure 3.16) rounding is used in the clinical practice areas.

Figure 3.17 shows that 72.83 per cent of staff were satisfied or very satisfied with their current job, with the remainder (just over one quarter) of all staff dissatisfied with their current job. Figure 3.18 shows that over 68 per cent of Tasmanian nurses/midwives intend to stay in their current employment, with just over 13 per cent wishing to leave within six months and the remainder (18 %) planning to leave within one year from the time the survey was undertaken. Well over 90 per cent of respondents (see Figure 3.19) indicated that they were either satisfied (53%) or very satisfied (38%) with their professional role as a nurse or a midwife, irrespective of their current position. The remaining staff (just under 9%) indicated dissatisfaction (or greater) with their professional role.

Figure 3.16: Tasmanian nurse/midwifery respondents' indicating the use of "rounding" in the clinical areas.

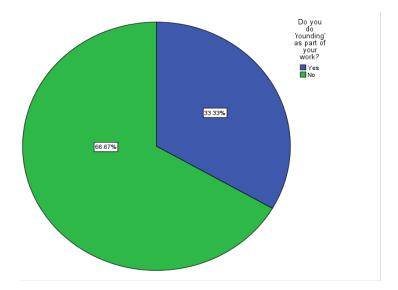


Figure 3.17: Tasmanian nurse/midwifery respondents' level of satisfaction with their current position.

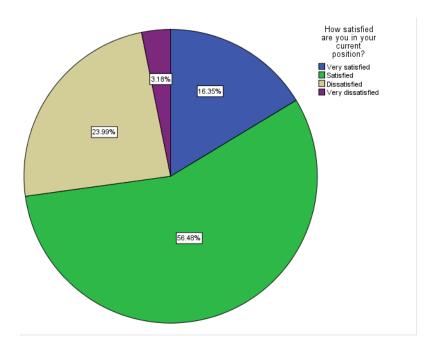


Figure 3.18: Tasmanian nurse/midwifery respondents' indication to stay in their current position.

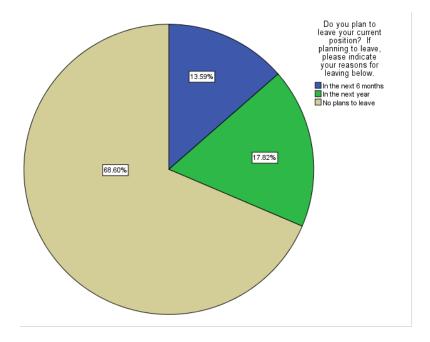
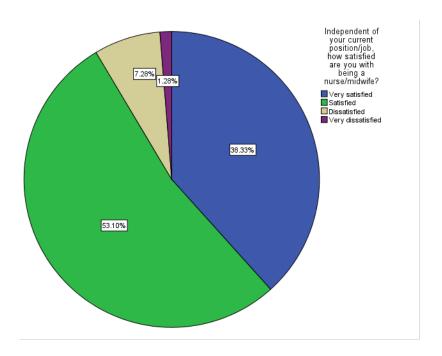


Figure 3.19: Tasmanian respondents' level of satisfaction with their role as a nurse/midwife.



Missed care: what is missed and why

Table 3.1 outlines the key nursing tasks that form part of the Kalisch MISSCARE survey with the number in brackets identifying the survey item. In previous studies conducted in Victoria and NSW (Blackman et al. 2015; Willis et al. 2015) a pattern emerged that indicates that nurses prioritise care tasks. This is not a new concept with several nurse researchers noting this trend (Alfaro-Lefevre 2008; Papastavrou et al. 2014). Drawing on the work of Aflaro-Lefevre (2008), nursing tasks were divided into three categories based on the acuity of the patient. The data is analysed for the three shifts. The three categories are high priority care tasks such as vital signs, second level tasks or treatment related tasks that minimise infections, and lower level tasks related to patient education and documentation.

Table 3.1: List of nursing tasks with numbering according to survey and according to results

1. [43]	Ambulation three times a day as ordered
2. [44]	Turning patient every two hours
3. [45]	Feeding patients while food is still warm
4. [46]	Setting up meals for patients who feed themselves
5. [47]	Medication administration within 30 minutes before and after scheduled
	time
6. [48]	Vital signs assessed as ordered
7. [40]	Monitoring fluid intake/output
8. [50]	Full documentation of all necessary data
9. [51]	Patient education about illness, tests and diagnostic studies
10. [52]	Emotional support to patient and family
11. [53]	Patient bathing/skin care
12. [54]	Mouth care
13. [55]	Hand washing

14. [56]	Skin /wound care
15. [57]	Patient discharge planning and education
16. [58]	Bedside glucose monitoring
17. [59]	Focused reassessment according to patient condition
18. [60]	IV access devices and assessments according to hospital policy
19. [61]	Response to call bell lights initiated within 5 minutes
20. [62]	PRN medication requests acted on within 15 minutes
21. [63]	Medications administered within 30 minutes before or after scheduled
	time
22. [64]	Assess effectiveness of medication

Figure 3.20 below demonstrates in hierarchical order the types and frequencies of missed care across the three shifts. The central vertical dotted line divides the individual nurses' agreement (or otherwise) of the frequency of missed care they believe exists, from the types of missed care reported and estimated in the survey. To the left of the vertical linear scale are a series of Xs (each representing the response of eight nurses/midwives) and they are positioned at the top of the scale (at +3.5 to - 4.5 logits) graduating down to the lowest end of the scale. This distribution of nurses/midwives' responses indicates the level or intensity of agreement or consensus as to how frequently care is missed. Participants located at the top of the scale indicate most strongly, that care is missed most frequently. Respondents indicating less frequency of missed care, are located further down the linear scale. Figure 3.20, indicates that participants held a broad range of beliefs about the frequency of missed care as the scores are spread across the whole scale with the bulk of staff indicating that missed care is occasionally to frequently missed. This can be seen by the series of X's that occur on the logit scale at -1.0 to +3.0 with the latter score, indicating greater consensus by staff that care is frequently missed.

To the right of the central vertical linear scale in Figure 3.20, are the individual items of missed care. Their position on the linear scale depicts to what extent this aspect of care is believed to be missed. These estimates are co-located on the same linear scale as the staffs' estimates of the frequency the missed care. Missed care survey items are positioned on the logit scale ranging from -1.0 to +1.5 logits. Missed care items located closest to the top of (at +1.5 logits) the linear scale, indicate consensus that this aspect of care is the most frequently missed item of care. Missed care items located progressively down the scale, confirm decreasing frequency in these aspects of care.

Figure 3.20: Frequency and types of Tasmanian missed care across all three shifts

Nurses	consensus for missed ca	re 	Aspects	of care always mis	ssed
3.0	Х		Early shif	t Late shift	Night shift
	X	ł			
	XX	i			
	XX	i			
2.0	XX	FM			
	XXX	i			
	XXX	i	17,	17,	17,
	XXX	i			3,
1.0	XX	į	16,		5,
	XX	- 1	8,9,18,	16,18,	
	XXX		6,	6,8,9,	16,18,
	XXX				
	XX		11,14	11,	6,9,
.0	XX	OM			8,15,20
	XXX	ļ	3,20	3,14,	2,10,11,12
	XXXXXXXXXXXXXXXXX	ļ	4,7,10,	4,10,15,	4,14,19
	XXX	!	1,12,	1,7,12,13,	1,7,13,
-1.0	XX	1	13,		
	X				
	XX				
	X X	- 1			
-2.0	XX	RM			
-2.0	X	1(1-1			
	X	i			
	XXX	i			
	X	i			
-3.0		i			
	X	į			
		ĺ			
	X	ĺ			
-4.0					
	X				
					_
Nurses'	consensus not missed ca	ire	Aspect of	care never missed	d

Each x = 8 nurse/midwives

All the missed care items for all three shifts have been co-located for comparison. It is worth noting that all the surveyed missed care items (and across all three shifts) are mostly confined to a very narrow range extending from approximately -1.0 to +1.5 logits. This indicates that the types and frequencies of missed care do not deviate significantly from each other, in terms of their frequency in being omitted within one given shift and across all three shifts.

Missed care estimates within the same shift(s)

Turning attention to the day shift missed care items, it can be seen that item 17 (Focused reassessment according to patient condition) is missed the most frequently during the day shift whereas staff hand-washing is missed least frequently (item 13) during the day. Looking at the afternoon shifts, item 17 (Focused reassessment according to patient condition) is missed the most frequently again whereas several care; item 1 (Patient ambulation), item 7 (monitoring fluid intake/output), item 12 (Mouth care) and item 13 (hand-

washing) are rarely missed. The night duty estimates are also shown in figure 3.20 where item 17 (Focused reassessment according to patient condition) is missed the most frequently during the night shift (as in the other earlier two shifts) whereas items 1 (ambulation of patients), item 7 (monitoring fluid balance) and item 13, staff hand-washing are missed least frequently during the night shift. It should be noted that during night shift much of the typical day nursing activities ceases as patients sleep.

Missed care estimates across the different shifts.

Figure 3.20 also illustrates that the same missed care items can be tracked across the three different shifts for changes over the rostered time period. As already mentioned there are strong similarities to the patterns and frequencies of missed care across all three shifts. In other words shift time is not a strong influence on the frequencies and patterns of missed care, as perceived by Tasmanian nurses/midwives. This is illustrated in Figure 3.20 where the missed care items remain on similar locations of the scale across the three time periods. It is worth noting that item 5 (providing prompt medication) differs most dramatically on night shift compared to other time periods. Staff indicated that providing prompt medication is more frequently missed overnight. This could indeed be due to the fact that routine medications are not usually given overnight, although the 0600 drug round is often part of night duty tasks. Item 20 illustrates the promptness of giving PRN medication, and indicates that it is missed only occasionally. This finding is consistent with omission rates during day and afternoon shifts.

Predicting factors that influence the types of care being missed and their frequency of being missed

Exploring the diversity and variance of the participants' scores for missed care provides evidence in predicting what aspects of care are missed particularly if the factors/variables which are thought to impact on the missed care scores are concurrently taken into consideration. Figure 3.21 represents this relationship for the frequencies of missed care. From the diagram, it can be seen that 19 factors/variables are thought to have a direct impact on the frequency of missed care. They include individual nurse/midwife demographic factors, variables depicting different aspects of the employment environments and lastly the major groupings of missed care. The intensity of influence each variable will have on the final missed care scores can be determined statistically by the nurse/midwives' responses to the survey and serves as the basis for predicting missed care. Note the missed care tasks are organized around high, intermediate and low priority tasks consistent with the Alfaro-Lefevre (2008) model.

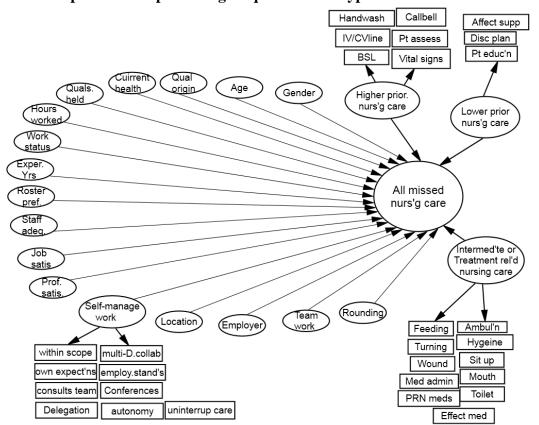


Figure 3.21: Conceptual model predicting frequencies and types of Tasmanian missed care

Predicting missed care during the early shift

Before exploring factors associated with missed care during the early shift, it is worth noting that several variables have no direct or indirect influence on missed care during an early shift. These are Hospital or unit characteristics including the location of the health care service (regional or city based) and whether the health unit is publicly or privately owned. Similarly, there are several individual attributes that have no effect of missed care during the early shift. These are the self-perceived health of staff members, their employment status (be it neither full or part-time employment), level of qualification (neither at degree level or below) nor the country of origin of their professional qualifications or the staffs' perceived level of satisfaction with being a member of the nursing profession. None of these factors predict missed care during the early shift.

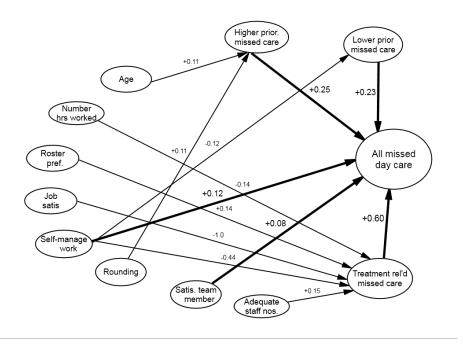
In prioritising care during the day or early shift, nurses/midwives prioritise lower level care tasks over the other two categories. This is shown by a co-efficient of +0.60 between these two variables; tasks and shifts. In essence, Intermediate/treatment-related care is missed the most during the day, followed by higher priority care (+0.25) with lower priority aspects of care missed the least (+0.23). Two other variables contribute to our understanding of missed care during this shift; these are the difficulty staff have in self-managing their work (+0.12) and staffs' level of (dis)satisfaction with being a member of a team in their own workplace (+0.08).

Figure 3.22 also shows that while these major variables exert a direct effect on the frequencies and types of care that is missed on early shifts, it also highlights factors that indirectly impact further on missed care at this time, by tracing the indirect effects they have in turn, on the major variables influencing missed care. Treatment-related missed care tasks are the most likely to be missed, but this variable itself is influenced by an additional five variables. In order of magnitude of influence they include the capacity of staff to manage their

daily work (-0.44), the level of job (dis)satisfaction staff have (-0.10), how frequently staff believe the ward is adequately staffed (+0.15), their preference to change their current roster (+0.14) and of equal influence, the number of hours worked by staff (-0.14). Cumulatively, nurses who experience difficulty managing their daily work, who are not satisfied with their current job, nor their current work rosters, or who are working less than 30 hours per week and believe their clinical areas are not adequately staffed for long periods of time, indicate greater variance (incidences) in missed treatment-related missed care.

Higher priority care is also influenced by a range of factors such as the age of the staff member and whether or not rounding is used in the clinical area (-0.11 and +0.11 respectively). This indicates that older staff members and the use of rounding are associated with increased variance in missed higher priority care. Lower priority care is also influenced by the ease/difficulty staff have in managing their working day. In this case, staff who believe it is not difficult to manage work, indicate that they are less likely to miss lower priority tasks on the day shift (-0.12).

Figure 3.22: Final model predicting missed Tasmanian day care



Predicting missed care during the afternoon/late shift

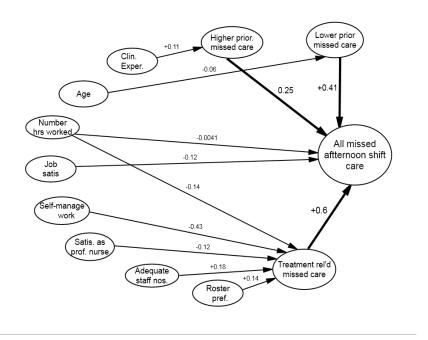
Several variables have no direct or indirect effects on the variance of the total scores for missed care during the late/afternoon shift. Similar to the early/day shift, the *location of the hospital (city or regional)* and *type of hospital owner-ship (public or private sector)* does not exert a significant influence on missed care. Figure 3.23 illustrates that several individual nurse attributes have no effect on missed care for this shift. These include the gender, employment status (be it neither full or part-time employment), level of qualification (neither at degree level or below), nor the country of origin of professional qualifications. None of these factors are able to predict missed care during the afternoon shift.

Care tasks most often missed during the late/afternoon shift are intermediate/treatment-related tasks (+0.60) followed by lower priority tasks (+0.41), then higher priority tasks (+0.26). Current job (dis)satisfaction remains a significant influence on missed care during the afternoon shift, (-0.12) along with the lesser number

of hours actually employed (0.004). Unlike the day/early shift factors such as (dis)satisfaction with working as a team member and the use of rounding in the clinical areas are not significant predictors of missed care.

Clinical experience is a factor impacting on higher priority tasks. Staff with more clinical experience are more likely to miss these tasks with a co-efficient of +0.11. Conversely, younger staff are more likely than older staff to miss lower priority tasks during afternoon shifts (-0.06). Staff wanting to change their current rosters were also identified with increased missed treatment-related care.

Figure 3.23: Final model predicting missed Tasmanian afternoon-shift care.

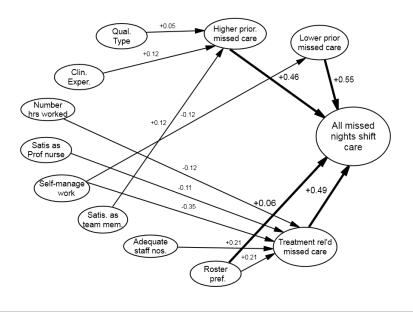


Predicting missed care during the night shift

Once again a number of variables have no impact on missed care during night shifts. These are, the location of the hospital (city or regional), the use of rounding, and the type of hospital ownership (public or private sector). Neither gender, age, qualifications gained in Australia (or not), the number of hours staff are employed (part or full-time status) or their self-rated health status are significant. As figure 3.24 demonstrates lower priority care tasks are the most frequently missed (+0.55), followed by treatment related care (+0.49) with the least missed being higher priority care tasks (+0.46). Staff (dis)satisfaction with current rosters do not directly impact on score variance for all overnight missed care (+0.06). Night shift differs from the two other shifts in the category of tasks that are most often missed, as well as in contributing nurse related factors. A significant factor is dissatisfaction with rosters, an issue that does not rate for nurses working other shifts.

Staff with qualifications at Bachelor's degree (or above), indicate a greater likelihood for missing higher-priority care tasks during the night shift than staff with hospital qualifications or at diploma level (+0.05). In a similar vein length of clinical experience is a factor, with these nurses more likely, than staff with less clinical experience, to identify that they miss higher-priority care at night (+0.12). Staff who self-identify as having difficulty managing their workload (-0.12) are more likely to miss lower-priority care. Factors impacting on treatment-related missed care in order of magnitude are staff's capacity to manage this aspect of work (-0.35), perceived adequacy of number of staff on the wards overnight (+0.21), (dis)satisfaction with current roster (also at +0.21), numbers of hours worked (-0.12) and (dis)satisfaction with their role as a professional nurse (-0.112).

Figure 3.24: Final model predicting missed care overnight



Reasons for missed care in Tasmania

Twenty survey items were used to explore the reasons for missed nursing care. The scale used to measure the directions and intensity of these items provided four options that ranged from *not a reason*, to *a minor*, *moderate* or *significant reason*. Table 3.2 lists these.

Table 3.2: Descriptions of the types of reasons why reported nursing care was missed

Item	Reason for reported missed	Item	Reason for reported missed nursing
no	nursing care	No	Care
1	Inadequate number of staff	11	Lack of back up support from team
			members
2	Inadequate skill mix for your area	12	Tension or communication
			breakdowns with other
			ancillary/support departments
3	Urgent patient situations (e.g	13	Tension or communication
	worsening patient condition)		breakdowns within the

			nursing/midwifery team
4	Unexpected rise in patient volume	14	Tension or communication
	and/or acuity on the ward/Unit		breakdowns with the medical staff
5	Inadequate number of assistive	15	Nursing assistant/carer did not
	and/or clerical personnel (e.g. care		communicate that care was not
	assistants, ward clerks, porters)		provided
6	Unbalanced patient assignment	16	Nurse/carer assigned to patient off
			ward/Unit or unavailable
7	Medications not available when	17	Heavy admission and discharge
	needed		activity
8	Inadequate handover from previous	18	Registered Nurses and
	shift or patient transfers into		midwives/Midwives not available or
	ward/Unit		not available in a timely manner
9	Other departments did not provide	19	Unable to access information
	the care needed (e.g. physiotherapy		technology (IT)
	did not ambulate)		
10	Supplies/equipment not available	20	Wearing personal protective
	when needed		equipment (not able to access or use)

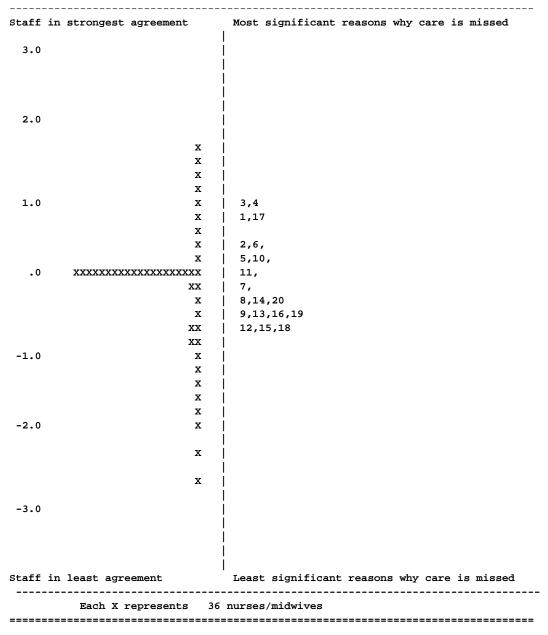
Figure 3.25 identifies the relationships between the staff beliefs about why nursing care is missed based on their views of how important each of twenty factors/reasons were in contributing to missed care. To the right of the vertical line (called a logit scale line), are the item numbers that correspond with each of the twenty given reasons for missed nursing care addressed in the survey. Each item is located on the scale according to the significance of the reason for why care is missed.

Item numbers occurring near the top of the scale represent the most significant reasons for why care is missed while item numbers located toward the bottom of the scale are those reasons identified as being **least significant**. With reference to Table 3.2 and the Figure 3.25, it can be seen that survey items 3 and 4, then items 1 and 17 are located at the highest point of the vertical scale. This indicates that these items, are the most significant reasons behind why care is missed. Item 3 (urgent patient situations) and item 4 (unexpected rise in patient volumes) crystallise that it is workload unpredictability and work intensity that are the major reasons why care overall is missed. 'Inadequate number of staff' (item 1) and 'heavy admission and discharge activity' (item 17) again show that work predictability and intensity are the strongest contributing factors to missed care. Continuing down the scale in Figure 3.25, items 2, 6,5 and 10 are then located. 'Inadequate skill mix for your area', 'an unbalanced patient assignment', together with an 'inadequate number of assistive and/or clerical personnel', and 'supplies/equipment not available when needed' (Items 2, 6, 5 and 10 respectively) remain important reasons behind missed care and illustrate the importance of an adequate supply of human and physical resources to combat missed care. At the bottom of the logit scale three items 12, 15 and 18 ('tension or communication breakdowns', 'staff not communicating that care was not provided', and 'Registered Nurses/Midwives not being available or not available in a timely manner') are located. Nurses nominate these as the least important reasons for missed care.

To the left of the vertical line are a series of X's, each representing 36 nurses and midwives. Nurses and midwives, who most strongly believed that the reasons given in the survey were largely responsible for missed care, are located in the upper range of the logit scale (adjacent to logit +1.0 to +2.0). This accounts for

approximately 180 of the surveyed staff holding the strongest consensus for why care is missed. The majority of staff (about 600 nurses/midwives co-located at the zero logit on the logit scale) moderately agree with the reasons given for missed care. The remaining nurses located on the descending or lowest aspect of the logit scale believe that the reasons given in the survey have minor or are of least importance in explaining missed care.

Figure 3.25: Reasons why care is missed: Staffs' attribution scores



Predicting why care is missed in Tasmania

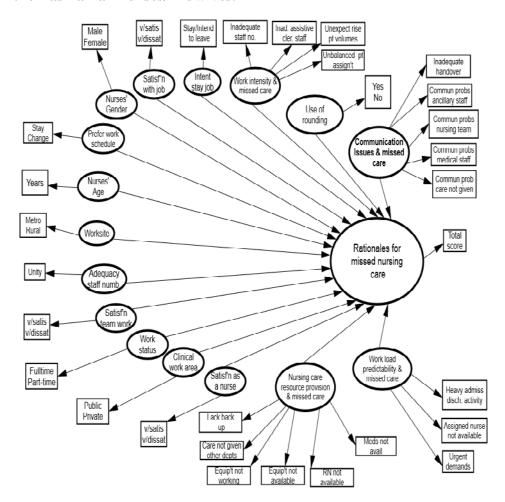
Figure 3.26 portrays those factors that are shown to influence why nursing care is missed from previous studies. It is assumed that such factors will also impact on how Tasmanian nurses/midwives perceive missed care and why this occurs. In light of this assumption, the figure is seen as being a hypothetical model requiring confirmation from the data supplied by the Tasmanian nurse/midwifery participants. Of particular note in this figure are the demographic variables, work intensity factors, resource allocation variables, factors depicting communication between staff and work predictability variables which are derived from the survey questions

(Refer to Questions 1 to 33 and Question 52 in appendix A), and are demonstrated as the small rectangles in Figure 3.26. These factors (termed manifest variables) in turn reflect latent variables (developed in the diagram as ellipses) which will, it is hypothesised, influence the magnitude behind the reasons why nursing care is missed.

The following variables were found *not* to have a statistically significant influence of why nursing care was missed in the clinical environments in this project. Participant nurse/midwife gender, the length of clinical experience held by the nurse/midwife and the nurses/midwives' level of satisfaction levels at being in that professional role did not have not any significant direct influence on the magnitude of why nursing care was missed.

The variables that have a statistically significant direct influence on the Tasmanian nurses and midwives' beliefs as to why nursing care is missed are presented in Figure 3.26. The range or depth of that influence is expressed as a value (a co-efficient), together with a listing of additional variables or factors that provide additional influence as to why care is missed.

Figure 3.26: Variables or factors that are thought to predict why nursing care is missed as predicted by the Tasmanian nurses/midwives.



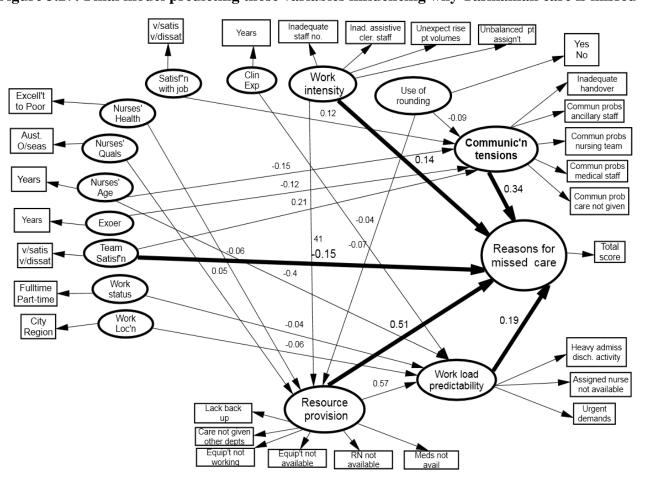


Figure 3.27: Final model predicting those variables influencing why Tasmanian care is missed

There are five variables that have a direct and significant influence on why nurses miss care. In order of magnitude these are the **provision of resources for care** (+0.51), **communication tensions between the care providers** (+0.34), **workload predictability** (+0.19), issues related to **workload intensity** (+0.14) and finally **satisfaction levels of staff in their role as a team member** (-0.15). These major factors are in turn, further impacted by other variables that impinge on the other five variables already acknowledged. For example, resource allocation as a factor is in turn impacted on by another four variables - levels of workload intensity (+0.41), the use of rounding (-0.07), the staffs' self-perceived own health status (-0.06) and the level of qualifications held by nurses/midwives (+0.05). Cumulatively, the provision of resources is seen as the major influence on why care is missed which in turn, is further influenced by workload intensity, the use of rounding and by staff individual factors including their own health status and qualifications (holding a degree).

Another direct and significant predictor for why care is missed is communication issues within healthcare teams, be it in the form of non-face to face communication (e.g. IT) or personal contact. The effect this has on why care is missed is in turn further magnified, by the additional influence of five other variables - team (dis)satisfaction (+0.21), the age of staff (-0.15) length of clinical experience held by staff and (dis)satisfaction with their current job (both at -0.12) and lastly the use of rounding (-0.09). With the effects of these additional factors, communication tensions are rated to be highly significant for missed care particular for those younger staff who are both dissatisfied as a team member, and in their current role have less clinical experience and have rounding in their clinical areas. Dissatisfaction with team membership has a direct impact on missed

care as does workload intensity however, neither of these variables are being in turn influenced by other factors.

Workload predictability is the fourth major reason influencing scores measuring missed care. This variable is in turn influenced by other factors impacting on it. It includes resource allocation to do the work (+0.57), the location of the worksite especially regional settings (-0.06) years of clinical experience (-0.04), staff age (-0.04) and part-time employment status (-0.4). Cumulatively, workload predictability issues are significant. This is particularly so for younger part-time staff with lesser clinical experience who are employed in non-city based hospitals. If accessing resources is seen as problematic, workload predictability becomes more important as a rationale behind why care is missed.

Chapter 4: Qualitative Responses to the Survey

Introduction

Additional information was collected from open ended questions which asked respondents to comment further on missed care in their work area. The following data was collated from responses to a question asking participants to comment on "Is there anything else you would like to tell us about missed care?" This question was completed by 76 participants working across, hospitals, aged care and community settings. Answers to this question primarily addressed the causes of missed care and are reported via work setting.

Nurses and Midwives working in hospitals

Nurses and Midwives working in Tasmanian hospitals identified time constraints that led to a need to prioritise care. One nurse identified having to 'prioritise care when busy and just do what you can in the time available' (9) while another stated that 'there is no longer time to enact basic care for patients, we are too busy prioritising our work load which often doesn't include basic general care' (69). The need to prioritise care was often taken for granted. Another nurse stated 'there are many reasons for missed nursing care, but hopefully not due to lack of, or inability to prioritise' (1). The care which was most frequently identified as missed was basic nursing care, such as mouth care (19), hygiene (26); or making beds (14) and delivery of extras such as spending time with patients, patient education and cups of tea. An experienced nurse said:

I find that some of the simple cares (sic) given to patients are frowned upon. Classed as spoiling the patient, taking a couple of minutes extra to make sure they are comfortable making an extra cup of tea if they are upset or unwell. Helping them in and out of the shower (6).

Likewise, a midwife said:

I would say it is the "icing" that is missed. Usually the important things are done. I do like to sit with a breast feeding woman while she is feeding and support her but sometimes there are other things going on and I have to excuse myself to help others (8).

As a consequence, some respondents argued that patient care comes second to other concerns. Another nurse stated that: 'patients getting safe care rather than best care has become the norm. We get by, don't kill them but they don't get well looked after' (26).

In addition to 'time constraints' nurses and midwives working within hospitals identified four major reasons for missed or delayed care. These were: management of competing demands; patient acuity; deficits in knowledge and education; and recent cuts in both nursing and ancillary staff in the public sector.

Many nurses and midwives identified juggling competing demands. An RN noted that 'nursing staff are consistently required to multi-task to complete care in a timely manner' (5). One factor that contributed to multi-tasking was working around the availability and demands of other health care professionals. Another RN described:

Nurses too often have to bow out in the middle of patient care and rearrange their schedule to accommodate others - even for attendants who apparently work to the clock and arrive at specific times rather than work to patient need (64).

For other nurses it is the volume of paperwork which detracts from nursing care. Respondents associated increasing paperwork with risk aversion and demonstrating that care had been given. They also identified duplication of paperwork (18). Concern with the volume of paperwork was expressed most clearly by a nurse who stated:

Ten-15 years ago there weren't all these policies and procedures and protocols.... The only reason I can see for all this increase in paperwork is fear of litigation. There was little litigation back then. People took responsibility for their part in the event... Now it is unacceptable to make mistakes....Fear is running the system (42).

A second factor was increasing patient acuity particularly in relation to staffing. In common with nurses in New South Wales and South Australia, Tasmanian nurses questioned the capacity of existing workload models to capture the increasing and changing acuity of patients (28). One nurse said 'some shifts are downright dangerous. It just depends on the patient acuity and staffing on the day. I don't believe our workload tool accurately allows for differing patient acuity' (30). Issues of acuity are exacerbated by lack of staffing flexibility that prevents the provision of extra staff when needed. It is unclear whether this is a result of budget constraints or nurse shortages. Another nurse noted that:

In our unit we operate on a ratio of 1 nurse to 4 patients on average, however the acuity can increase and when this occurs we are not often provided enough extra help, if any, because all the other nurses on the unit have their own responsibilities and there is no-one to assist. There is no allowance for possible increased acuity or the deteriorating patient when allocating staff for the shift (67).

A third factor identified by these nurses and midwives were deficits in knowledge and education. Many experienced nurses viewed graduate nurses as poorly prepared for clinical practice. One nurse stated that:

Missed nursing care occurs because the training of nurses does not adequately prepare them for the requirements of the role. Most are poorly prepared academically (knowledge) don't possess the skills (training) and are not interested in acquiring them (attitude) (16).

Another nurse claimed that graduates were 'poorly prepared for ward management, clinical skills and time management' (73) while a third nurse argued that poor nurses are not being 'weeded out' (66). A second factor creating knowledge deficits is rationalisation of specialist services. The need for staff to be multiskilled has resulted in skilled staff being under utilised in some settings and lack of skilled staff to provide services in other settings. A midwife commented on this.

It is a great injustice to the women of Tasmania to not keep maternity and birthing wards for maternity and birthing. Many midwives have limited skills eg baby checks, iv and phlebotomy skills and perineal suturing BUT are given preference of employment as they have nursing qualifications and can be used to care for general patients as well. Missed care is also about skills and knowledge you bring to the job, there is no point filling a ward with staff if they can't actually do the job!

A final factor identified by nurses was staffing cuts associated with reduced government funding for health services. Staffing cuts involved both nurses and ancillary staff and are associated with poorer care by respondents as indicated in the following quote.

There have recently been staffing cutbacks throughout all aspects of our whole organisation (nursing, care, kitchen and cleaning staff) due to changes in government funding. This has had a very negative effect on the care we are able to provide (52).

Aged care nurses

Aged care nurses identified three central issues that contributed to missed care namely; the increasing acuity of aged care residents, RN staffing ratios and communication issues. Nurses identified a shift towards management of residents with more complex needs which increases RN workload. One RN stated:

The face of aged care is changing. 3 years ago in Tasmania it was unheard of to have IVs in aged care. As the cost of health increases, aged care is being slowly opened to a sub-acute level of health care. Although the number of patients on IV is limited, it is expected that nursing staff will provide quality care (48).

For another RN more complex residents are difficult to manage on top of exiting demands. She said 'if there is 1 fall with neuro obs or 1 palliative patient it can extend the shift an hour overtime, just to complete duties and necessary paperwork' (70).

Concern with capacity to meet care expectations is complicated by staffing skill mix, in particular RN to resident ratios. Respondents identified RN to resident ratios of 1 to 80 (25) to 1 to 120 (40). Ratios, in conjunction with the demands of paperwork (21), meeting funding criteria, addressing family concerns (47) and medication rounds leave little time for residents and reliance upon careers to alert the RN if resident is unwell or about critical incidents (70).

A final issue identified by nurses working in aged care related to communication both from management but also between the team providing care. One nurse argued that missed care in aged care occurred through 'miscommunication verbal or written' (41).

Community nursing

While this question was only completed by a few community nurses all identified staffing issues as the primary cause of missed care in community health. One nurse stated that:

There has been significant concern expressed that staff shortages mean we miss the opportunity to establish strong relationships with clients when their babies are very young, and clients miss out on the best we can offer i.e. They don't know the full suite of what we can offer. New parent groups and other group work, in addition to the individual client work, has been significantly impacted (reduced) because of staff shortages - most acute in the past 2 years (26).

Other concerns were poor discharge planning from acute services (57) and the volume of work involved in admitting patients to community services (33).

Conclusion

Nurses in Tasmania, in common with nurses in other states, report having to prioritise nursing care leading to basic care being missed. In commenting upon the reasons for missed care they highlight competing demands, patient acuity, staffing levels and skill mix as contributing to missed care. While these accounts are brief, they are consistent with the qualitative survey data and with what nurses in other states are reporting (Blackman et al. 2015; Henderson et al. 2013; Willis et al. 2015).

Chapter 5: Bringing it all together

This chapter brings together the key findings from both data sets and teases out the factors which contribute to missed care. Where data is available, comparison are made with results from the survey conducted in South Australia, NSW, Victoria and New Zealand. There are slight differences between the NZ survey and the SA, Tasmania, NSW and Victorian surveys in terms of phrasing of some questions, but the over-all congruence is evident. In the first section we briefly revise the items of missed care across the three shifts, and then compare these with SA, NSW, Vic and NZ studies (Henderson et al. 2013; Harvey et al. 2013; Blackman et al. 2015a). We then explore reasons for missed care, comparing results from Tasmania with those from South Australia which shares many of the demographic features of Tasmania. We explore differences in the reasons offered for missed care via sector and by location. We conclude with comments about the impact of proposed changes upon equity of access to services in light of the reported findings.

What care is missed?

Table 5.1 lists the five top care tasks most often missed across the three shifts. There is some overlap between the shifts in terms of tasks that are most likely to be reported as missed. Nurses across all three shifts identify deficits in completion of patient reassessment, bedside glucose monitoring and assessment and management of IV devices. These findings contrast with results from comparable surveys in which basic nursing care is more likely to be identified as being missed (see Table 5.2)

Table: 5.1: Five most common missed care items across the three shifts

Morning	Afternoon	Night
Focused reassessment according to patient condition	Focused reassessment according to patient condition	Focused reassessment according to patient condition
Bedside glucose monitoring	Bedside glucose monitoring	Feeding patients while food is still warm
Full documentation of all necessary data	IV access devices and assessments according to hospital policy	Medication administration within 30 minutes before and after scheduled time
Patient education about illness, tests and diagnostic studies	Vital signs assessed as ordered	Bedside glucose monitoring
IV access devices and assessments according to hospital policy	Full documentation of all necessary data	IV access devices and assessments according to hospital policy

Table 5.2: Comparison of the five most commonly missed activities by State

Tasmania (Day shift)	Victoria (Day shift)	NSW (Day shift)	SA (All shifts)
Focused reassessment according to patient condition	Assist in ambulating	Bedside glucose monitoring	Interdisciplinary case conferences
Bedside glucose monitoring	Oral hygiene	Patient education about illness, tests and diagnostic studies	Ambulate patient
Full documentation of all necessary data	Assist with toileting	Patient bathing and skin care	Oral hygiene
Patient education about illness, tests and diagnostic studies	Monitoring intake/output	Hand washing	Respond to bell in 5 minutes
IV access devices and assessments according to hospital policy	Feeding patients while food still warm	PRN medication within 15 minutes	Turn patient 2 hourly

When comparisons are made between states there are considerable differences, although not marked variations from the Kalisch et al. studies (2006; 2009). For example, in the South Australian study conducted in 2012/3 the top five missed care tasks were *interdisciplinary case conferences, ambulating patients, mouth care, responding to bells in a timely manner and turning patients every 2 hours* (Henderson et al. 2013). In the New Zealand study the five top items were *ambulating patients, patient rounds, mouth care, fluid monitoring* and *patient washes*. (Harvey et al. 2013). Similar results were obtained on the morning shift in NSW and Victoria (Blackman et al. 2015b). While, treatment or intermediate care, including basic nursing care had the most significant impact on missed care across all three shifts in Tasmania, low priority care such as documentation and patient education was also frequently reported as being missed, particularly on late and night shifts. This is reflected in the top five missed tasks which are a combination of lower and higher priority tasks. These findings contrast to the results from other states which are predominantly intermediate or treatment related tasks. There may be a number of reasons for this finding. The volume of missed care reported in Tasmania was less than that reported in other states and hence the differences between factors may not be as great. Secondly, it may reflect the involvement of respondents from smaller rural hospitals where nursing time is divided between aged and acute care. In this context, basic nursing care may not be missed as regularly.

Causes of missed care

When data is explored for the reasons for missed care (see table 5.3) there is greater commonality with other states. The top five reasons for missed care identified in Tasmania reflect issues with the number and composition of the nursing workforce alongside difficulties in in providing all care needed when work intensifies due to changes in patient acuity and or admission and discharge activity. These issues are also

highlighted in responses to open questions from hospital based nursing staff who identify difficulties in meeting competing demands and incapacity of staffing models to account for patient acuity. Tasmania uses the Nursing Hours per Patient Day staffing model (NHPPD). Duffield et al. (2006) argue that NHPPD models have limitations as they do not provide a means of calculating what staffing levels should be and do not account for time spent performing tasks that are not direct patient care (Duffield et al. 2006). In addition, some respondents identified loss of nursing and other staff arising from restructuring of public sector health services.

Table 5.3: Five top reasons for missed care in Tasmania, NSW, SA and Victoria

Tasmania	SA	NSW	Victoria
Urgent patient	Unexpected rise in	Provision of resources	Urgent patient
situations (e.g	patient volume	for nursing care	situations (e.g.
worsening patient	and/or acuity on the		worsening condition
condition)	ward/unit		of patient)
Unexpected rise in		Urgent patient	Unexpected rise in
patient volume	Inadequate number	situations (e.g.	patient volume
and/or acuity on the	of staff	worsening condition	and/or acuity on the
ward/Unit		of patient)	ward/unit
Inadequate number	Urgent patient	Unexpected rise in	
of staff	situations (e.g	patient volume and/or	Heavy admission and
	worsening patient	acuity on the	discharge activity
	condition)	ward/unit	
		Inadequate number of	Inadequate skill mix
Heavy admission and	Heavy admission and	assistive and/or	for your area
discharge activity	discharge activity	clerical personnel	
	discharge derivity	(e.g. care assistants,	
		ward clerks)	
Inadequate skill mix	Inadequate number		Unbalanced patient
for your area	of assistive and/or	Heavy admission and	assignment
	clerical personnel	discharge activity	
	(e.g. care assistants,		
	ward clerks)		

Given the sparseness of the population, reliance upon smaller rural health services and service restructuring data was run for differences in the reasons reported for missed care between metropolitan and rural services. Path analysis demonstrated that location was a significant contributing factor in the importance placed upon the causes of missed care but not upon the types of care missed. As participants were not specifically asked about the location of their workplace in the Tasmania survey, a variable was created on the basis of the description of the service in which nurses are employed. Nurses indicating that they worked in a large or medium sized acute hospital in a major city were coded as metropolitan while nurses working in hospitals in regional and remote areas or in non-acute hospital settings and in multi-purpose services were coded as rural. Nurses working in community, mental health and residential aged care facilities were excluded from this analysis as the location of these services could not be determined. As a result only 220 responses were

included in analysis and results must be viewed with caution, particularly when comparing data with South Australia as the location of workplace was asked in the South Australian survey. Cross tabulations and chi squares were performed to compare location with causes of missed care in both Tasmania and South Australia. To ensure sufficient numbers to undertake analysis the data on causes of missed care was recoded into major and minor reasons for missed care for both data sets.

In Tasmania, significant differences between metropolitan and rural settings were reported on two variables: 'unexpected rise in patient volume and/or acuity on the ward/unit' ($p \le 0.05$) and 'lack of assistive and clerical personnel' ($p \le 0.01$). In both cases, nurses working in metropolitan settings were more significantly more likely to identify these issues as major issues in their work setting. Heavy admission and discharge activity approached significance. Findings from the South Australian survey indicated that nurses in rural settings were significantly more likely to associate missed care with lack of assistive and clerical personnel ($p \le 0.05$) than nurses in metropolitan settings and that metropolitan nurses were more likely to associate missed care with availability of supplies and equipment ($p \le 0.05$), the functioning of equipment ($p \le 0.001$), inadequate handover from previous shifts and of transferred patients ($p \le 0.05$) and poor communication from nursing assistants and carers ($p \le 0.05$) (Willis et al. 2015c).

Data was also compared for the top five reasons offered for missed care by metropolitan and rural respondents in Tasmania and South Australia (see Table 5.4). There is considerable overlap between the top five causes of missed care in metropolitan and rural hospitals in Tasmania, however mean scores for all five causes were lower in rural than metropolitan hospitals, reflecting the data obtained through cross tabulation. There is also considerable overlap between the Tasmanian and South Australian data, with staffing issues and sudden changes in workload identified as causing missed care in all contexts. The differences are that South Australian participants identified issues arising from 'lack of assistive staff' and difficulties in accessing medication. This data reflects the differences which were identified as being significant in that rural participants identified lack of assistive personnel as a major cause of missed care while metropolitan participants identified difficulties in accessing medication. The data as a whole suggests that location has less impact upon both the volume and causes of missed care in Tasmania than in South Australia. Further, metropolitan respondents in Tasmania place greater importance upon most causes of missed care than rural respondents.

Table 5.4: Comparison of the top five causes of missed care in metropolitan and rural settings in Tasmania and South Australia

Tasmania metro	Tasmania rural	SA metro	SA rural
Unexpected rise in	Unexpected rise in	Unexpected rise in	Unexpected rise in
patient volume	patient volume	patient volume	patient volume
and/or acuity on the	and/or acuity on the	and/or acuity on the	and/or acuity on the
ward/Unit	ward/Unit	ward/Unit	ward/Unit
Inadequate number	Urgent patient	Inadequate number	Inadequate number
of staff	situations (e.g.	of staff	of staff
	worsening condition		
	of patient)		
Urgent patient	Inadequate number	Urgent patient	Inadequate number
situations (e.g.	of staff	situations (e.g.	of assistive and/or
worsening condition		worsening condition	clerical personnel
of patient)		of patient)	(e.g. care assistants,
			ward clerks)
Heavy admission and	Inadequate skill mix	Heavy admission and	Urgent patient
discharge activity	for your area	discharge activity	situations (e.g.
			worsening condition
			of patient)
Inadequate skill mix	Heavy admission and	Medications not	Heavy admission and
for your area	discharge activity	available when needed	discharge activity

Implications of 'transforming health'

This survey was conducted at a time when the Tasmanian government was undertaking changes to the public health care system that will ultimately result in the centralisation of service delivery. Data from this survey suggests that Tasmanian nurses are currently reporting less missed care than colleagues in other states, with nurses in rural settings rating most of the causes of missed care as less important than their metropolitan counterparts. The centralisation of service delivery is likely to create greater demands upon metropolitan services and deplete resources for care delivery in rural settings As well as creating issues in relation to access and equity of services this change has the potential to reduce the quality of the services provided. The DHHS (2015b) has already demonstrated poorer outcomes in relation to waiting times for elective surgery and outpatient appointments across the four major acute hospitals in Tasmania (see Table 2.3). Unless additional nursing and medical staff are provided to account for service centralisation this is a trend that is likely to continue. There is some evidence from the responses to open questions that this is already occurring with nurses identifying loss of nursing and support staff and under-utilisation of experienced staff in some areas.

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Appendix A: MISSCARE Survey Tasmania

Missed Nursing Care Survey Tas	omonia
MISSEO NUISINO GALE SULVEV LAS	

env wee Our	Ink you for participating in our survey. This survey will help us learn more about nurses' work ironments and the care they provide, particularly in the period 'after hours', including ekends. questions focus specifically on the clinical setting and the shifts you may work during this time. No you currently work as a nurse and/or midwife in a clinical setting at least once each fortnight?
	Missed Nursing Care SurveyTasmania
	About you
2	Gender
	Female Male
3	Age
\bigcirc	Under 25 years old (<25) 25 to 34 (25-34) 35 to 44 (35- 44) 45 to 54 (45-54) 55 to 64 (55 - 64) Over 65 years old (65+)
4	Do you work in a
	Private
	setting
	Public
	For an Agency
<i>-</i> -	
5. N	Mark all that apply. Is your workplace located in a

Large acute care hospital

		West
	\times	North North
6		In what region is your workplace located?
	Other	r (please specify)
		Residential Aged Care Facility
		Other hospitals/services (e.g. prison medical services, dental hospital)
	\bigcirc	Psychiatric
	patier	nts)
	\bigcirc	Other non-acute (e.g. geriatric treatment centres combining rehabilitation and palliative care with a small number of acute
	\bigcirc	Rehabilitation
	\bigcirc	Hospices
	\bigcirc	Community Health
		District Nursing
	_	Multi-purpose service
	_	Small non acute hospital
		Small remote hospitals but not 'multi-purpose services'
		Small regional acute care hospital (small country towns)
		Medium acute care hospital in a regional area
		Medium acute care hospital in a major city

7 What is your main area of practice?
Aged Care
Community Health
Critical Care/Intensive Care
Education
Family/Child Health
Management/Administration
Medical/Surgical
Mental Healt
Midwifery
Peri-operative
Rehabilitation
Research
Other (please specify)
8 Do you spend the majority of your working time in this area?
Yes
○ No
9 Is this your main job?
Yes
○ No
Other (please specify)

10	What is your highest qualification?
\bigcirc	Certificate III, Health Services/Nurse Assistant
\bigcirc	Enrolled Nurse Certificate (Hospital trained)
\bigcirc	Certificate IV, Enrolled Nurse
\bigcirc	Registered General Nurse Certificate
\bigcirc	EN Diploma in Nursing
\bigcirc	RN Diploma in Nursing or equivalent
\bigcirc	Bachelor Degree in Nursing
\bigcirc	Bachelor Degree in Midwifery
\bigcirc	Bachelor Degree/Honours outside of Nursing
\bigcirc	Graduate Diploma in Nursing/Midwifery
\bigcirc	Graduate Diploma outside of Nursing/Midwifery
\bigcirc	Master's degree in Nursing/Midwifery
\bigcirc	Master's degree outside of Nursing
\bigcirc	PhD/Professional Doctorate
Othe	er (please specify)
11	Was your original nursing qualification from Australia?
\bigcirc	Yes
\bigcirc	No
If no	, list country where you were first qualified as a nurse
12	Was your original Midwifery qualification from Australia?
\bigcirc	Yes
\bigcirc	No
If no	, list country where you were first qualified as a nurse

13	Job Title/Role in the clinical area
\bigcirc	Health Assistant in Nursing (AIN)
\bigcirc	Enrolled Nurse
\bigcirc	Registered Nurse/Midwife
\bigcirc	Midwife only
\bigcirc	Clinical Nurse/Midwife Consultant
\bigcirc	Clinical Nurse Specialist or equivalent
\bigcirc	Nurse/Midwife Manager or equivalent
\bigcirc	Nurse Practitioner
\bigcirc	Practice Nurse
\bigcirc	Nursing Director or equivalent
\bigcirc	Director of Nursing
\bigcirc	Academic (e.g. Lecturer, Researcher)
\bigcirc	Personal Care Worker
Othe	er (please specify)
14	Employment status when you work in the
\bigcirc	Full-time permanent
\bigcirc	Part-time permanent
\bigcirc	Full-time casual
\bigcirc	Part-time
\bigcirc	Agency
Othe	er (please specify)
15	Number of hours usually worked per weel
0	less than 24 hours per week
\bigcirc	less than 30 hours per week
	30 hours or more per week

16 that	Which of these categories best describes your rostered/scheduled work hours. Mark all apply.
	All early or day shifts
	All late or evening shifts
	All night shifts
	Monday to Friday only
	Weekends only
	Rotating roster/shifts (morning, afternoon/evening and weekends)
	Rotating roster/shifts (morning, afternoon/evening, nights and weekends)
	Irregular schedule
	Split shifts (within the shift/day)
	On call
Othe	er (please specify)
17	Would you prefer to maintain your current work schedule, or change it?
\bigcirc	
\bigcirc	Prefer to maintain current schedule
	Prefer to maintain current schedule Prefer to change to a different schedule
18	
18	Prefer to change to a different schedule
18	Prefer to change to a different schedule If you could change your current work pattern/roster, which would you prefer?
18	Prefer to change to a different schedule If you could change your current work pattern/roster, which would you prefer? Days (less than 8 hours)
18	Prefer to change to a different schedule If you could change your current work pattern/roster, which would you prefer? Days (less than 8 hours) Evenings (less than 8hr)
18	Prefer to change to a different schedule If you could change your current work pattern/roster, which would you prefer? Days (less than 8 hours) Evenings (less than 8hr) Days (8 - 12 hour shift)
18	If you could change your current work pattern/roster, which would you prefer? Days (less than 8 hours) Evenings (less than 8hr) Days (8 - 12 hour shift) Afternoon/Evening (8 - 12 hour shift)
18	If you could change your current work pattern/roster, which would you prefer? Days (less than 8 hours) Evenings (less than 8hr) Days (8 - 12 hour shift) Afternoon/Evening (8 - 12 hour shift) Nights (8 - 12 hour shift)
18	If you could change your current work pattern/roster, which would you prefer? Days (less than 8 hours) Evenings (less than 8hr) Days (8 - 12 hour shift) Afternoon/Evening (8 - 12 hour shift) Nights (8 - 12 hour shift) 7 day roster
18	If you could change your current work pattern/roster, which would you prefer? Days (less than 8 hours) Evenings (less than 8hr) Days (8 - 12 hour shift) Afternoon/Evening (8 - 12 hour shift) Nights (8 - 12 hour shift) 7 day roster 5 day roster (Monday to Friday only)
18	If you could change your current work pattern/roster, which would you prefer? Days (less than 8 hours) Evenings (less than 8hr) Days (8 - 12 hour shift) Afternoon/Evening (8 - 12 hour shift) Nights (8 - 12 hour shift) 7 day roster 5 day roster (Monday to Friday only) Set rotating roster (e.g. 6 week rotation)

19	Experience in your role
\bigcirc	0- 6 months
\bigcirc	7 months to 1 year
\bigcirc	1 - 2 years
\bigcirc	3 - 4 years
\bigcirc	5 - 6 years
\bigcirc	7 - 8 years
\bigcirc	9 - 10 years
\bigcirc	11 - 15 years
\bigcirc	16 - 20 years
\bigcirc	Greater than 20
\bigcirc	Other (please
spec	ify)

20 This question relates to the length of you work in a shift?	our working hours. How many hours will you usually
Less than 4	
4 to 6 hours	
Greater than 6 hours to 10 hrs	
Less than 10 hours to 12 hours	
Other (please specify)	
21 Thinking about the hours you are employers work more than your rostered shift length?	oyed, how many times in the past 3 months did you
Less than 5 time	
5-10 times	
11-15 times	
16-20 times	
Greater than 20	
Never	
Other (please specify)	
22 In the past 3 months how many hours of	of overtime did you work?
Less than 5	
6 - 10 hours	
11 - 15 hours	
16 - 20 hours	
Greater than 20hrs	
Oid not work	
overtime	
Other (please specify)	7

injured and/or significantly fatigued.	rostered shifts aid you NOT work because your were sich
None	
1 shift	
2-3 shifts	
4-6 shifts	
over 6	
Comment	
24 In the past 3 months how many s significantly fatigued?	shifts did you work even though you were sick, injured o
None-Go to question 24	
1 shift	
2-3 shifts	
4-6 shifts	
over 6 shifts	
Other (please specify)	
25 Please mark all that apply. I work	ed while sick, injured or significantly fatigued because
I did not have any leave left	
I felt an obligation to my colleagues	
We were short staffed	
I felt fit to work	
Financial reasons	
Other (please specify)	
I .	

26	In general, would you say your health is:
\subset	Excellent
	Very good
\subset	Good
\subset	Fair
\subset	Poor
27	How often do you feel your ward/Unit staffing is adequate?
\subset	100% of the time
\subset	75% of the time
\subset	50% of the time
	25% of the time
	0% of the time
29 the b	Does your organisation use a staffing tool? If so, what is it called? Please write name in bx below
	Yes
	No
Otl	er (please specify)
30 nursi	In your opinion, does the staffing tool used in your organisation assist in preventing missed ag care? If so, why? If not, why not? Please comment in the box below.

31 tran	On the last shift you worked how many patient-admissions did you have (i.e. includes sfers into the Unit/ward)?
32 tran	On the last shift you worked how many patient-discharges did you have (i.e. includes sfers out of the Unit/ward)?
33	How satisfied are you in your current position?
\bigcirc	Very satisfied
\bigcirc	Satisfied
\bigcirc	Dissatisfied
	Very dissatisfied
34	How satisfied are you with the level of teamwork on your Unit/ward?
\bigcirc	Very satisfied
\bigcirc	Satisfied
\bigcirc	Dissatisfied
\bigcirc	Very dissatisfied
If di	ssatisfied, please specify where your dissatisfaction comes from:

35 for	Do you plan to leave your current position? If planning to leave, please indicate your reasons leaving below.
	In the next 6 months
	In the next year
	No plans to leave
	Other (please specify)
36	Independent of your current position/job, how satisfied are you with being a nurse/midwife?
	○ Very
	satisfied
	Satisfied
	Dissatisfied Very dissatisfied
	Other (please specify)
ı	Missed Nursing Care SurveyTasmania
	Managing care in your workplace
	althcare organisations engage in a number of practices to ensure that quality rsing care is delivered by staff. Rounding is argued to be one such practice.
*	37. Do you do 'rounding' as part of your work?
	Yes
	○ No

38. How do you	understand rounding	in the context of your workplace?
39. How frequen	ntly does your workplace	expect you to conduct rounds?
Half		
hourly		
Hourly		
As decided by you No specific		
requirement		
Other (please specify)		
40 11 1		
40. How is rour	nding recorded in your	workplace?
Not recorded		
Recorded in a 'roun	nding chart' that is included in the medica	I record/casenotes
Recorded in a 'roun	nding chart' that is NOT included in the m	edical record/casenotes
Recorded elsewhere	е	
Please specify where this	s is done	
41. If you are coreding?	harting or documenting	'rounds' what aspects of care are you
		7
40 In vara animi	ion how does become the set	antribute to quality nations are 2
4∠. in your opini	ion, now does rounding (contribute to quality patient care?

Nurses frequently encounter multiple demands on their time, which requires them to reset priorities and not accomplish all the care needed by their patients. To the best of your knowledge in the past three (3) months, how frequently are the following elements of nursing care MISSED (not done, omitted, left unfinished) by nursing staff (including you) on the shifts below. The times indicated in this section refer to the standard shift length times in your workplace. Early, late and nights worked Monday to Friday inclusive of weekends. Please mark all that apply.

43.	Assist	in	ambulating	three	times	а	day	or	as	ordered

	Never missed	Rarely missed	Occasionally missed	Frequently missed	Always missed	N/A
Early or day shift	\bigcirc					
Late or evening shift	\bigcirc			\bigcirc		
	\circ		\bigcirc	\bigcirc	\bigcirc	
Comment						
44. Turning patie	ent every 2	to 4 hours				
44. Turning patie	-		Occasionally	Frequently		
-	ent every 2 Never missed	to 4 hours Rarely missed	Occasionally missed	Frequently missed	Always missed	N/A
44. Turning pation	-		-		Always missed	N/A
-	-		-		Always missed	N/A
Early or day shift	-		-		Always missed	N/A
Early or day shift	-		-		Always missed	N/A

45. Feeding patients while food is still w	arm
--	-----

	Never missed	Rarely missed	Occasionally missed	Frequently missed	Always missed	N/A
Early or day shift			\bigcirc	\circ		\circ
Late or evening shift	\circ	\bigcirc	\circ	\bigcirc	\circ	\circ
Night shift	\circ			\circ	\bigcirc	
Comment						
		ala matelata f	••			
46. Assist with to	olleting nee	eds within t				
	Never missed	Rarely missed	Occasionally missed	Frequently missed	Always missed	N/A
Early or day shift	\circ	\bigcirc	\bigcirc	\circ	\bigcirc	\bigcirc
Late or evening shift	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Night shift		\bigcirc	\bigcirc	\circ	\bigcirc	\bigcirc
Comment						
47. Setting up me	eals for pat	tients who	feed thems	selves		
	Never missed	Rarely missed	Occasionally missed	Frequently missed	Always missed	N/A
Early or day shift			\bigcirc	\circ	0	\circ
Late or evening shift	\circ	\bigcirc	\circ	\bigcirc	\circ	\circ
Night shift	\bigcirc				\bigcirc	
Other (please specify)						

Never missed	Rarely missed	Occasionally missed	Frequently mis	ssed Alwa	ays missed	N/A
		\bigcirc				\bigcirc
omment						
9. Monitoring i	ntake/outpu	ıt as ordered				
			occasionally	Frequently		
E autorou de catalon	Never missed	Rarely missed	missed	missed	Always missed	N/A
Early or day shift		0	0	0		
Late or evening shift	0	0	0	0	0	0
Night shift		\circ	0	\circ	0	0
omment						
). Full docume	entation of a	all necessarv	nursina/m	idwiferv	intervention	ns
D. Full docume	entation of a	All necessary Occasionally missed	nursing/m	-	intervention ays missed	N/A
		-	_	-		
Never missed		-	_	-		
Never missed		-	_	-		
Never missed		-	_	-		
Never missed		-	_	-		
O. Full docume Never missed omment 1. Patient educ	Rarely missed	Occasionally missed	Frequently mis	ssed Alwa	ays missed	
Never missed	Rarely missed	Occasionally missed t illness, tests	Frequently mis	nostic st	ays missed tudies	N/A
Never missed comment	Rarely missed	Occasionally missed	Frequently mis	nostic st	ays missed	
Never missed omment 1. Patient educe Early or day shift	Rarely missed	Occasionally missed t illness, tests	Frequently mis	nostic st	ays missed tudies	N/A
Never missed Domment 1. Patient educe Early or day shift Late or evening shift	Rarely missed	Occasionally missed t illness, tests	Frequently mis	nostic st	ays missed tudies	N/A
Never missed omment 1. Patient educ	Rarely missed	Occasionally missed t illness, tests	Frequently mis	nostic st	ays missed tudies	N/A
Never missed Domment 1. Patient educe Early or day shift Late or evening shift	Rarely missed	Occasionally missed t illness, tests	Frequently mis	nostic st	ays missed tudies	N/A

52. Emotional support to patient and/or family

	Never missed	Rarely missed	Occasionally missed	Frequently missed	Always missed	N/A
Early or day shift			\circ	\circ		\circ
Late or evening shift	\bigcirc	\bigcirc	\circ	\bigcirc	\bigcirc	\circ
Night shift	\circ			\circ	\bigcirc	\circ
Comment						
53. Patient Hygie	ne		Occasionally	Frequently		
	Never missed	Rarely missed	missed	missed	Always missed	N/A
Early or day shift			\bigcirc	\bigcirc		\circ
Late or evening shift	\bigcirc			\bigcirc		\bigcirc
Night shift	\bigcirc			\circ	\bigcirc	\circ
Comment						
54. Patient Oral H	lygiene					
	Nevermissed	Rarely missed	Occasionally missed	Frequently missed	Always missed	N/A
Early or day shift		0	\bigcirc		\circ	
Late or evening shift	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Night shift						

55. Nurse Hand Hygiene

	Never missed	Rarely missed	Occasionally missed	Frequently missed	Always missed	N/A
Early or day shift		\bigcirc	\bigcirc	\circ		\bigcirc
Late or evening shift	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Night shift	\circ					
Comment						
56. Skin/Wound	Care					
	Never missed	Rarely missed	Occasionally missed	Frequently missed	Always missed	N/A
Early or day shift	\bigcirc	\bigcirc	\bigcirc	\bigcirc		\bigcirc
Late or evening shift	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc
Comment						
57. Patient disch	narge plann	ing and ed	ucation			
	Never missed	Rarely missed	Occasionally missed	Frequently missed	Always missed	N/A
Early or day shift	0		\circ	\circ		\circ
Late or evening shift	\circ	\circ		\circ	\circ	\bigcirc
Night shift	0		\circ	\circ	\bigcirc	\circ
Comment						

	Never missed	Rarely missed	Occasionally missed	Frequently missed	Always missed	N/A
Early or day shift	\bigcirc		\bigcirc	\circ		\circ
Late or evening shift		\bigcirc	\bigcirc	\circ	\bigcirc	\circ
Night shift			\bigcirc	\bigcirc	\bigcirc	\bigcirc
Comment						
59. Focused reas	ssessments	s according	to patient	condition	1	
	Never missed	Rarely missed	Occasionally missed	Frequently missed	Always missed	N/A
Early or day shift			0	\circ		0
Late or evening shift		\bigcirc	\circ	\circ	\circ	\circ
Night shift			\bigcirc	\circ	\bigcirc	
Comment						
60. IV access de	vices and a	assessment	ts accordin	g to hosp	ital policy	
	Never missed	Rarely missed	Occasionally missed	Frequently missed	Always missed	N/A
Early or day shift	\circ		\circ	\circ		\circ
Late or evening shift	0	0	0	0	0	\circ
Night shift			\circ			\circ

61. Response to	call bell/light	initiated	within 5	minutes
-----------------	-----------------	-----------	----------	---------

	Never missed	Rarely missed	Occasionally missed	Frequently missed	Always missed	N/A
Early or day shift	0				0	
Late or evening shift	\circ	\circ	\circ	\circ	0	\bigcirc
Night shift	\circ		\bigcirc	\circ	\bigcirc	
Comment						
62. PRN medicat	tion reques	ts acted on				
	Never missed	Rarely missed	Occasionally missed	Frequently missed	Always missed	N/A
Early or day shift	\bigcirc			\circ	\bigcirc	
Late or evening shift	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Night shift	\bigcirc		\bigcirc	\bigcirc	\bigcirc	
Comment						
63. Medications	administere	ed within 30	0 minutes l	before or	after schedu	led time
	Never missed	Rarely missed	Occasionally missed	Frequently missed	Always missed	N/A
Early or day shift	\bigcirc			\circ	\bigcirc	
Late or evening shift		\bigcirc	\bigcirc	\bigcirc	\bigcirc	
Night shift					\bigcirc	

64. Assess effectiveness of medications

						N/A
Early or day shift						
Late or evening shift	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Night shift						
Comment						

Missed Nursing Care SurveyTasmania

SECTION B: REASONS FOR MISSED NURSING/MIDWIFERY CARE

65. Indicate the reasons that you believe contributes to MISSED care in your ward/Unit. Please mark one box for each item.

	Not a reason	Minor reason	Moderate reason	Significant reason	N/A
Inadequate number of staff		\circ	\bigcirc	\circ	
Inadequate skillmix for your area	\bigcirc	\bigcirc	\bigcirc		\bigcirc
Urgent patient situations (e.g. deteriorating patient condition)	\circ	0	0	0	0
Unexpected rise in patient volume and/or acuity on the ward/Unit	\circ	\circ	0	\circ	
Inadequate number of assistive and/or clerical personnel (e.g. care assistants, ward clerks, porters)	0		0		0
Unbalanced patient assignment	\bigcirc	\circ	\bigcirc		\bigcirc
Medications not available when needed		\circ	\circ		\circ
Inadequate handover from the previous shift or patient transfer into ward/Unit	0	0	0	0	0

	Not a reason	Minor reason	Moderate reason	Significant reason	N/A
Other departments did not provide the care needed (e.g. physiotherapy did not ambulate)					
Supplies/equipment NOT available when needed	0	\circ	\circ	\bigcirc	
Lack of back up support from team members	\circ	\circ	\circ	0	\circ
Tension or communication breakdowns with other ANCILLARY/SUPPORT DEPARTMENTS	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Tension or communication breakdowns within the NURSING/MIDWIFERY TEAM	0	0	0	0	0
Tension or communication breakdowns with the MEDICAL STAFF	\circ	\circ	\circ	\bigcirc	0
Nursing Assistant/Carer did or did not communicate that care was provided	0	0	0	0	0
Staff member assigned to the patient absent from ward/Unit or unavailable	\circ	\bigcirc	\bigcirc		\circ
Heavy admission and discharge activity	\circ	\circ	\circ	\circ	
Not able to access registered nurse in a timely manner OR registered nurse is unavailable	\bigcirc	\bigcirc	\bigcirc	\cup	\bigcirc
Unable to access Information Technology (IT)	\circ	0	0	0	0

	Not a reason	Minor reason	Moderate reason	Significant reason	N/A
Wearing Personal Protective Equipment (PPE) (e.g. working in Isolation Rooms and not being able to assess equipment, supplies, or assistance of	\bigcirc	\cup	\cup	\bigcirc	\cup
another staff member to assist with care such as manual handling, complex procedures)					
Comment					

In this section we would like you to reflect upon how you manage to deliver care and some of the circumstances that may influence how you will do your work. How difficult or easy is it for you to do the following aspects of your work?

66. Work within your scope of practice

Extremely difficult for me	Difficult for me	Easy for me	Very easy for me	N/A
		\bigcirc	\bigcirc	\bigcirc
Other (please specify)				
67. Deliver care th standards	at is consister	t with your owr	n expectations of p	oractice
Extremely difficult for me	Difficult for me	Easy for me	Very easy for me	N/A

Other (please specify)

Extremely difficult for me	Difficult for me	Easy for me	Very easy for me	N/A
\bigcirc	\circ	\bigcirc	\bigcirc	\bigcirc
Other (please specify)				
9. Collaborate wi	_	lines when plar	nning and providin	g patient ca
Extremely difficult for me	Difficult for me	Easy for me	Very easy for me	N/A
\circ	\circ	\circ	0	\circ
Other (please specify)				
70 Δttend interdis	scinlinary care	conferences w	henever held	
70. Attend interdis				N/A
	sciplinary care Difficult for me	conferences will Easy for me	henever held Very easy for me	N/A
Extremely difficult for me				N/A
Extremely difficult for me				N/A
Extremely difficult for me				N/A
Extremely difficult for me				N/A
Extremely difficult for me Other (please specify)	Difficult for me	Easy for me	Very easy for me	N/A
Extremely difficult for me	Difficult for me	Easy for me	Very easy for me	N/A
Extremely difficult for me Other (please specify) 71. Delegate work	Difficult for me	Easy for me	Very easy for me	N/A
Extremely difficult for me Other (please specify) 71. Delegate work	Difficult for me to other staff v	Easy for me	Very easy for me	
Delegate work Extremely difficult for me The control of the cont	Difficult for me to other staff v	Easy for me	Very easy for me	
Extremely difficult for me Other (please specify)	Difficult for me to other staff v	Easy for me	Very easy for me	

72. To deliver unir	nterrupted nurs	ing care		
Extremely difficult for me	Difficult for me	Easy for me	Very easy for me	N/A
0	\circ	\bigcirc	0	\bigcirc
Other (please specify)				
za To be outonom	ous in how I d	olivor nuroina a		
73. To be autonom				N1/A
Extremely difficult for me	Difficult for me	Easy for me	Very easy for me	N/A
		O		O
Other (please specify)				
74. Implement nur	sing care in th	e absence of po	olicies/procedure ç	guidelines
Extremely difficult for me	Difficult for me	Easy for me	Very easy for me	N/A
0	\circ	\circ	0	\circ
Other (please specify)				

75. Is there anything else you would like to tell us about missed nursing care?
Missed Nursing Care SurveyTasmania
THANK YOU
We appreciate your time. If you would like more information about the study you are
welcome to contact
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