

Estimates Committee 2010
Questions Taken On Notice

(11/06/2010 to 18/06/2010)

Date: 17/06/2010

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Subject: Independent report into the implementation of the nursing hours

From:Mr Matt Conlan to Hon Kon Vatskalis
Health

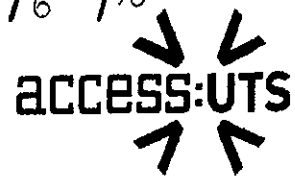
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Question: Minister, will you provide the independent report into the implementation of the nursing hours per patient-based staffing model to the committee?

Answer:

Answered On: 02/07/2010

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Implementation of the NHPPD Management Tool for Nursing Staffing Levels

Report 2: December 2008 – May 2009

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18 August 2009

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EXECUTIVE SUMMARY

- The willingness of staff to engage in the process of implementation of the Nursing Hours per Patient Day Project (NHPPD) at all levels in the DHF and hospitals is impressive and is a significant contributor to the success of this project.
- Implementation of NHPPD is ongoing with ward/unit types being added progressively.
- Staff at the ward level (particularly CNMs) feel there is a positive impact. Hospitals are reporting (anecdotally) improved staff satisfaction.
- Additional nurses and midwives have been employed to meet the Benchmark targets (an increase of 160.44 FTEs from November 2008 to the end of May 2009). There is some evidence that there is less reliance on short term staffing such as the use of overtime and agency hours and this trend should continue with increased recruitment.
- Many new employees are first year registered nurses who will require close monitoring and support. It is critical that these staff are retained so that the workforce profile does not become increasingly more junior. A balance between experienced and less experienced staff is required.
- Understaffing by more than 10% has trended down over the six month period of data collection. In particular Wards 4A, 4B and 3A at Royal Darwin Hospital are within the benchmark on all but one occasion over the six months (4B in January). Where understaffing occurs at RDH it is in Units where further work is being undertaken to refine the NHPPD model (Special Care Nursery, ICU, HDU, CCU and Palmerston and Nguiu dialysis units. The Continuing Care Ward has just been commissioned at

Alice Springs Hospital and appropriate benchmarks are still being determined. The Dialysis Unit at Tennant Creek Hospital exceeds the 10% threshold but refinement of the model is ongoing for units of this type.

- Overstaffing greater than 10% at all sites is more common. There are significant peaks and troughs in activity, particularly at the smaller regional hospitals which make it difficult to remain consistently within the 10% threshold. Also at these hospitals and on smaller units at ASH and RDH minimum safe staffing levels apply which frequently cause them to exceed the benchmark.
- Overstaffing at RDH (by greater than the 10% threshold) occurs regularly on some wards. The benchmarks allocated by the NHPPD model may need review. It is not possible to determine daily staffing patterns on the data available, that is whether on a given day/shift some wards are understaffed and use overtime and agency staff to supplement the hours while others are overstaffed. This requires a 'whole-of-hospital approach to staffing rather than a 'Division-centric' model.
- There are several atypical aspects of providing health services in acute settings in the Northern Territory such as the range of preventative/health promotion activities. These activities are not really accommodated in the NHPPD method. The Implementation Steering Committee is cognisant of these factors.
- The NHPPD is less able to predict staffing requirements in some ward or unit types such as dialysis, special care nursery. Again the Implementation Steering Committee is aware of these and working towards a satisfactory resolution.



- Data on skillmix are not routinely collected at the ward level. Summaries of the use of overtime, casual, agency and bank nursing hours are now being produced.
- Quality data indicate the rate of incidents at RDH is trending up but this is more likely to be the result of better reporting.
- It is not possible to link staffing to patient (nursing sensitive) outcomes as data are not available.

RECOMMENDATIONS

1. The NHPPD method of staffing should be implemented progressively across the Territory for the remaining unit types. Refinement of aspects of the model (for example dialysis, special care nursery) is ongoing and the Implementation Steering Committee has to date been very responsive, handling these variations effectively.
2. The Implementation Steering Committee should continue to monitor nurse staffing levels and the setting of benchmarks. Once the NHPPD method is fully implemented across the Northern Territory this Committee may only need to convene as patient acuity and/or the configuration of wards/hospitals changes.
3. Reports on skillmix and the use of overtime, casual, agency and bank nursing hours should be produced and if possible, the data should be reported at the ward/unit level and provided to Clinical Nurse Managers. This is particularly important for Royal Darwin Hospital.
4. The Nursing Workload Committees should be more involved in closely monitoring staffing on each ward and unit. Discussions should include skillmix, the rates of overtime and where relevant, agency, casual and bank staff. These data need to be available at hospital and unit/ward level. All Clinical Nurse Managers must be closely involved in discussions about staffing on their units.
5. A development program which covers staffing and the use of staff may be necessary for Clinical Nurse Managers, particularly those new to the role.
6. Staffing levels and mix (including use of overtime, casual and agency staff) should be monitored daily at Royal Darwin Hospital to prevent



overstaffing. The Nursing Co-Directors at RDH should be more engaged in staffing across the Hospital. This could take the form of a brief staffing meeting at the commencement of the day to plan for the coming 24 hours and should be in conjunction with the Executive Director of Nursing. It may be appropriate for Clinical Nurse Managers to participate in this meeting.

7. Data from RiskMan should be reported in a timely manner at the ward/unit level if possible and discussed in a multidisciplinary forum.

1. INTRODUCTION

This Report is the second provided to the Minister for Health by the Consultant. The Contract specifies that the Consultant is to provide a report on the implementation of the NHPPD management tool for nursing staffing levels in the five Northern Territory acute care hospitals. This Report covers the period December 2008 – May 2009.

As part of the Review process all five hospitals (Alice Springs, Gove, Katherine, Royal Darwin and Tennant Creek) were visited by the Consultant as were all wards/units participating in the NHPPD project, some on more than one occasion. There was regular direct contact with Executive and Senior Nurses in the Territory including several of the Clinical Nurse Managers (CNMs).

2. BACKGROUND

Following the Northern Territory Coronial Inquest [2008] NTMC 049 the Minister for Health announced that the "Nursing Hours per Patient Day" (NHPPD), nursing workload management tool would be introduced throughout hospitals in the Northern Territory. The initial focus was to be on Ward 4A and other wards that had been staffing to a deficit. The implementation is to occur within current resources, but will identify if and where additional nursing staff are required.

A NHPPD Implementation Steering Committee was established in April 2008, when a Project Officer was also appointed. The Project Officer develops the monthly workload reports, assists with implementation and provides data for the ongoing implementation and evaluation. The Australian Nursing Federation (ANF) is a member of this Implementation Steering Committee and has access to all information relating to nursing workloads and the supply of nurses to meet patient demand.

On 15 September 2008, the DHF Implementation Steering Committee endorsed the proposed NHPPD Benchmarks. These benchmarks were based on 4.5 years of data. The Nursing Workload Benchmarks can be reviewed and changed using a business case model and based on the previous six months of data. The DHF Nursing Workload Steering Committee will review benchmarks every six months against an agreed variance ($\pm 10\%$) and assess the business cases for changes to the benchmark (see Appendix A for Terms of Reference). Introduction of the agreed NHPPD commenced 18 October 2008.

Each hospital is to establish a Nursing Workload Committee to be chaired by the Director of Nursing (see Appendix B for Terms of Reference). These Committees will assess the benchmarks monthly, monitor staffing levels and identify any related staffing issues. Each Director of Nursing will report monthly to their General Manager on the nursing workload (staffing levels) and issues that arise.

The aim of the Nursing Hours per Patient Day (NHPPD) implementation is to provide a staffing management tool for nurse managers based on patient needs and the matching of nursing workload to appropriate staffing levels, to ensure the provision of safe patient care. The NHPPD staffing tool should:

- Provide for a minimum level of safe staffing;
- Provide staffing appropriate to patient demand; based on patient acuity, patient numbers and patient turnover (admissions and discharges);
- Provide NHPPD benchmark guidelines for the staffing of wards or departments;
- Determine the nursing staff establishment (FTE) for each ward or department based on patient care required;
- Provide a basis for roster staff profiles, the nursing numbers needed each shift, seven days per week; and

- Include all “direct” rostered nursing staff; permanent, casual, overtime and agency hours provided.

3. RECRUITMENT AND RETENTION

There has been considerable success in recruitment for the period January – March 2009. Alice Springs Hospital recruited 72 nursing staff; Gove Hospital five staff; Katherine Hospital 19 staff; Royal Darwin approximately 190 staff and 32 casual staff; and nine staff at Tennant Creek Hospital. The challenge for facilities will be retaining these staff over the longer term.

More specifically, at **Alice Springs Hospital** the ICU Clinical Nurse Manager reports a high turnover of staff – many choose to work six weeks to three months. This leads to a lack of senior staff to act as team leaders and she postulates this is perhaps a reason for a number of medication errors. Ward 4 was a large difficult ward to manage and made retention of staff difficult it but has now been split into two wards. No other issues were raised.

Gove Hospital has had a waiting list for staff until this year but lack of accommodation in Gove is impacting on recruitment for all government agencies. Construction of new units is planned for the hospital site.

Katherine Hospital has placed clinical educators (1 full-time and two part-time) on the wards to assist with training and retention of new staff. This strategy has also been found to be effective in minimising adverse events for patients. The Hospital is also implementing an ‘essentials of care’ project which should refocus nurses’ efforts on delivering more patient-focused care. The Hospital has sponsored two trainee midwives (postgraduate) and anticipates they will remain employed on completion of their course.

At **Royal Darwin Hospital** many of the new hires are first year registered nurses which may impact on more experienced staff as they will require greater supervision than would an experienced nurse. Appropriate transitional programs and preceptoring are important to ensure their successful integration into the workplace and retention staff longer term.

Tennant Creek Hospital finds it increasingly difficult to attract and retain nursing staff but has increased FTEs from by 12.16% 2008 to 2009. There is no program for new graduate nurses.

Overall, the Nursing Workforce Data Report (May 2009) indicates an increase of 9.18% (160.44 FTEs) over the previous year. All five hospitals report an increase in FTE with the exception of Gove and Katherine Hospitals, down 8.80% and 1.73% respectively. Importantly there is a reported increase in permanent staff of 140.12 FTE. DHF has launched their GIANTS recruitment campaign which should enhance future recruitment.

In summary recruitment of nursing staff to Northern Territory hospitals has been successful. However, many of the new staff are first year registered nurses (new graduates) and as a result, wards and units may now have a comparatively 'junior' workforce profile. Hospitals will need to ensure that appropriate programs are in place to preceptor these staff to ensure they are retained and become productive senior staff. Staff retention should now be a priority.

4. NURSING HOURS PER PATIENT DAY – DECEMBER 2008 – MAY 2009

Bed occupancy data are collected using the Caresys Uniwarsum Midnight Census which does not capture if more than one patient occupies a bed during the day. Direct nursing hours are obtained from ONESTAFF and only nurses coded as providing direct care are included. Appendices 1 and 2 provide a summary of the occupied bed numbers, actual NHPPD and variance for the six

month period covered in this Report. NHPPD data were provided to the Consultant as monthly summaries which are useful for observing trends.

Data are not routinely collect on skillmix (proportion of registered nurses) which is more important to patient safety than hours of care. Poor skillmix or the use of staff unfamiliar with the unit/ward (agency, bank, casual or float staff) or working longer hours than usual (overtime) may be more detrimental to patient safety than insufficient nursing hours. These data were not available at the ward level. The Consultant designed an Excel spreadsheet with the assistance of Raelene Messenger (Project Officer) and Pauline Evans (ASH) to capture data for a 24 hour period on every ward involved in the NHPPD implementation. The tool was designed to:

- Provide a learning tool and a basis for discussion about a range of staffing variables with CNMs,
- Provide a 'snapshot' of staffing across the five hospitals on randomly selected days,
- Determine what actions were taken by CNMs when they were faced with staffing difficulties (e.g. a lack of staff or overstaffing projected) and responses from senior staff to requests for more staff,
- Determine any 'atypical' staffing patterns not captured in the monthly summary.

The data collected for the 24 hour period included:

- Bed numbers – authorised and occupied bed numbers,
- NHPPD – benchmark and actual,
- Variance in NHPPD,
- Reasons for the difference,
- Actions undertaken to resolve a variance,

- Hours worked – total hours, registered nurse and enrolled nurse hours (skillmix),
- Proportion of part-time and full-time staff,
- Whether the CNM was included in care giving hours,
- Use of overtime, agency, float and bank hours,
- Any 'atypical' staffing that occurred over the 24 hours such as overseas trained nurses, nurse on a flight etc.

The tool was trialed in February to ensure that data were readily available and that all staff would be able to complete the form. Senior Nurses (DONs, Divisional Directors) at all five sites supported use of the spreadsheet and enthusiastically agreed to participate. Nursing Directors at Royal Darwin Hospital decided to collect data for the **whole month** of February to get a 'snapshot' of each ward's staffing and activity daily across the hospital for an extended period.

The days were randomly selected to minimise the potential for CNMs to adjust their staffing prior to collection. Data were collected on March 26 (Thursday), April 17 (24th at RDH because the Hospital was involved in a major disaster) which were both a Friday and May 16th (Saturday).

4.1 Results – six monthly trend data (appendix 1 and 2)

4.1.1 Understaffing – Variances highlighted in white in Appendix 1 indicate understaffing which exceeds the 10% variance. There is obvious improvement in staffing levels by the May period. Refinement of the model is ongoing on those wards where understaffing by more than 10% occurs.

Alice Springs Hospital - Ward 4 has now been split with the **Continuing Care Ward** added and it is this ward which now exceeds the 10% variance. As this ward only opened April 2nd and increased its beds to 30

at the end of April it will take some time to establish appropriate staffing patterns. **Ward 4** is now within the 10% threshold.

*Royal Darwin Hospital - **Special Care Nursery*** has been over the 10% threshold for five of the six month periods. In March and April beds occupied were greater than authorised although the Unit was within the threshold in March. This unit is 'unique' in that it has three sections in the nursery; Level 1 which is General Nursery Babies; Level 2 which is babies requiring one nurse per patient; and Level 3 which is Neonatal Intensive Care babies also requiring 1:1 nursing care. Discussions continue about what the staffing levels here should be.

In **ICU** and **HDU** the Clinical Nurse Manager moves staff as appropriate between the Units. The nurse:patient ratio in ICU is 1:1 while in HDU the ratio is 1:2 patients. These Units have moved to unit-based staffing - occupancy between the areas varies daily and staffing for the two units is determined on a daily basis. Data have been omitted in May as ONESTAFF is not able to accommodate this change at the moment.

CCU consistently appears to be over the threshold but the NHPPD model is based on a larger Coronary Care Unit providing care to more complex patients. Staff do not believe this accurately reflects their situation as they do not feel they have insufficient staff. Adjustments to the NHPPD model should see this benchmark reduced shortly.

Palmerston and **Nguiu** dialysis units are also over the 10% threshold, **Nguiu** for five of the six months. This clinic is on Bathurst Island and defined as remote. Anecdotal evidence suggests that the workload for the one nurse there is substantial. Refinement to the NHPPD model for dialysis units is ongoing.

Tennant Creek Hospital - The **Dialysis Unit** at TCH has a greater than 10% variance for all six months. The NHPPD model may require modification to deal with Units of this nature.

4.1.2 Overstaffing – Variances highlighted in white in Appendix 2 indicate overstaffing which exceeds the 10% variance.

Alice Springs Hospital – The **Paediatric Unit** has significant peaks and troughs in occupancy (the maximum occupied beds in the six month period was 28 from a possible 40). Minimum safe staffing levels apply here when bed numbers are low. In addition, several staff are inexperienced in working with such a vulnerable paediatric population and are 'paired' initially with more experienced staff. On occasion the **Maternity Unit** rises above the 10% threshold but the Unit can receive up to 10 'drop-in' patients on a given day, each of whom requires four hours of observations and assessment. In addition a midwife is required at each birth and as there are often two births at the same time then two midwives need to be available.

The **Inpatient Dialysis Unit** is over the 10% variance on four of the six months because occupancy is slightly down and minimum safe staff levels apply.

The **ICU** was trending over but this has reversed. The CNM indicated there were several inexperienced new graduate nurses and/or overseas trained staff who needed closer supervision.

Gove Hospital – The **Maternity Unit** closed in April and reopened in May. While the Unit consistently appears to exceed the 10% threshold nursing staff conduct an antenatal clinic three times a week (not included in the NHPPD methodology). In addition the mothers and neonates are counted

as one patient despite many of these neonates requiring greater intervention than would be anticipated. However a neonate does not meet Commonwealth criteria to be admitted to a Special Care Nursery at ASH or RDH until Day 10. Country services in WA experience similar issues and data are collected there on rates and reported as a variance to activity. Staff also run a clinic one day/week and at change of shift on another three occasions. This is not captured in the NHPPD. While minimum safe staffing levels apply here there are occasions where only one nurse/midwife is on the Unit at night (with 3-5 patients) providing no 'backup' should an incident occur.

The **Medical-Paediatric Ward** at times exceeds the 10% threshold. Boarders (40-50/month) are an ongoing and frequent issue requiring up to two hours of nursing time on each occasion. Staff on the ward cover staffing in the Emergency Department after hours and monitor patients in the two respite beds at night. There is no agency to supplement staffing levels but staff can be called in to work overtime or extra shifts. The Hospital staffs to projected peaks to minimise this occurrence.

Katherine Hospital – Both the **Paediatric** and **Maternity** units are consistently overstaffed. Again minimum safe staffing levels apply. However there are also significant fluctuations in patient numbers in both Units over time making staffing less able to be matched to patient flow. The Paediatric Unit has day-only admissions for theatres and these admissions are not captured at the midnight census - pre and post-operative patients are cared for on the Unit during the day. As with Gove Hospital mothers and neonates are counted as one patient despite many of these neonates requiring greater intervention than would be anticipated but a neonate does not meet Commonwealth criteria to be admitted to a nursery until Day 10.

There are several factors which add to nursing workload and are not readily captured in the NHPPD model. Most of the admissions (80-90%) are indigenous, some with significant social issues (adults and children return to the Hospital because of a lack of food at home or are admitted not having eaten for some time). Levels of aggression against staff are high. The Hospital has aboriginal liaison officers and works closely with the local community and the Aboriginal Advisory Council to resolve issues. The Hospital now has contracts with some patients in an attempt to deal with aggression. Nursing staff also provide a 'hospital in the home' service - treatments such as administration of intravenous medications which assists in keeping older persons in the community and hostels. This is usually done in the handover period between shifts when more staff are available.

In addition the Hospital has no access to agency staff and as a consequence staffs to a reasonable level in case patient numbers rise. They are trying to establish a pool of casual nursing and PCA staff.

Royal Darwin Hospital – Medical Ward 7C is slightly over the 10% threshold on five of the six months but the ward size is small and the NHPPD model is best suited to larger wards (any small change in staffing in a small ward has a greater impact statistically). The same is true for the **Rehabilitation Ward** which is small and where minimum safe staffing applies (two per shift). Care provided to acutely ill patients on the **Medical - Hospice** ward is not captured well in the model where at times one nurse is required for one patient. **RAPU** has many short stay patients and the rapid movement of these patients through the Unit is not captured well by a midnight bed count (several patients could have passed through the Unit in the 24 hours but the census has not changed). The Unit exceeds the threshold when occupied bed numbers decrease.

Paediatrics (5B) and Paediatrics (7B) exceed the 10% threshold all six months. The CNM reports patients often require nurse specials because of acuity. **Maternity** exceeds the threshold but as with Alice Springs Hospital, the Unit receives a number of patients greater than 20 weeks gestation as 'drop-ins'. They require a minimum of four hours of observations and there are many occasions when up to 10 such patients can present to the Unit. The NHPPD model does not capture these occasions of service. **Nightcliff Dialysis Unit** is overstaffed but the model may not work well with units of this type. There are 20 chairs and two sessions/chair/day but in addition, patients arrive unexpectedly for treatment and/or refuse or defer their treatment to another time. This impacts significantly on staffing and there is a need to be able to accommodate increased or decreased activity with very short notice.

A shortage of PCAs was reported over several months of data collection and as a consequence, when a 'special' is required and a PCA is not available a nurse is often employed (usually an enrolled nurse). This will increase the actual NHPPD as ONESTAFF codes them as direct care hours as they are nurses, rather than PCAs which are not included in the calculations.

Tennant Creek Hospital – Ward 1 is frequently overstaffed but minimum safe staffing levels apply here. In addition nurses may be called out to accompany patients on a flight (4-5 hours/patient) with the Royal Flying Doctor Service and there must be a contingency built in to accommodate this occurrence. In addition one nurse can be occupied all day with clinics.

4.2 Results - random data collection (appendices 3-26)

The Consultant met with all CNMs individually over a period of six weeks to discuss their monthly trend data following the introduction of the NHPPD

methodology. The tool for random data collection was discussed as were their results. Many of the CNMs commented that completing the tool made them think differently about staffing. There was a greater understanding of the use of staff, both numbers and mix. For example, when questioned one CNM realised that s/he was staffing at the same level every day irrespective of the number of patients 'just in case' rather than staffing appropriately. Another CNM realised that s/he was using overtime excessively rather than planning for known patient 'peaks' during the week. A senior member of staff has found the tool very useful in discussing staffing issues with the CNMs and will continue to use it regularly to provide a snapshot and learning opportunity for staff, particularly new CNMs.

In terms of the NHPPD data collected (Appendices 3-5) the variance between hours rostered for direct care over the three random days for all five hospitals is within the 10% threshold of variance with only three exceptions; ICU, CCU and HDU at ASH; Maternity at ASH and Dialysis Nightcliff at RDH – each on one occasion only. While only a small sample of three days, the strategies identified by the CNMs on the spreadsheet suggest that attempts are made daily to adjust staffing to accommodate patient numbers.

Data were also collected on other staffing characteristics including skillmix (proportion of RN hours worked); rates of part-time staff; agency, float, overtime and bank hours and any other atypical staffing which occurred on the random days. **Alice Springs Hospital** data indicate that most staffing hours are provided by registered nurses with the poorest skillmix on the Special Care Nursery (50% RNs at times). Highest overtime use is 44% on one shift (dialysis) but over the three days there does not seem to be a great use of this staffing strategy. Access to other staffing options is limited in Alice Springs but additional staff employed recently may assist. At **Gove Hospital** skillmix is very stable with mainly registered nurses employed who covered respite and A&E during the night shift. Overtime was used to cover sick leave. The Hospital has only one enrolled nurse. They endeavour to hire highly skilled staff because of their remoteness,

the lack of an ICU and less experienced medical staff. This year they hired a newly graduated registered nurse for the first time. At **Katherine Hospital** there is greater variation in skillmix with the proportion of RNs 50% on one afternoon shift. Minimal overtime use is noted and agency staff are unavailable. **Tennant Creek Hospital** is also stable in terms of skillmix with few enrolled nurse hours included and atypical staff coverage including a 6 hour RN flight.

As indicated above, **Royal Darwin Hospital** collected data for all of February and they intend to repeat the exercise in February 2010 for comparative purposes. The results for the month indicated that while their NHPPD were close to the benchmarks, their skillmix was poor. On investigation there was an increased use of 'specials' and as there were few RNs available many of these were Enrolled Nurses. The data collected on the three random days indicate that on some shifts on some days the skillmix is very poor with 33% RNs noted on Medical 7C ward. This ward and Medical Hospice have the poorest skillmix of all wards. This may be appropriate given patient mix. There does not appear to be a great use of overtime or agency staffing on the shifts for which data were monitored. Atypical staffing is noted with several new graduate nurses and patients requiring constant care.

Most CNMs have logbooks on their ward that record a variety of aspects which impact on workload and staffing but which are not captured in any dataset. Examples include the number of borders, the number of flights nurses must attend. These data may prove useful in refining the model in the future or in justifying staffing levels. Staffing will be reviewed by the Implementation Steering Committee with respect to the model for use in the renal dialysis units. Work is being undertaken on the collection of maternity data.

In summary understaffing by more than 10% has trended down over the six month period of data collection. Where this occurs at Royal Darwin Hospital it is in Units where further work is being undertaken to refine the NHPPD model to

reflect the patient profile and needs. However overstaffing greater than 10% is more common. Frequently (but not always) this is in Units where there are real peaks and troughs in activity and/or where minimum safe staffing levels apply. Nevertheless there may be some potential here to 'even' out staffing with creative approaches such as unit-based staffing occurring in the ICU and HDU Units at RDH (assuming a positive outcome when evaluated).

RDH has a Divisional structure and a feature of this is that staffing is devolved to the Divisions and Co-Directors without the involvement of the Executive Director of Nursing. Without this oversight and coordination it is possible to have overstaffing in one Division and understaffing at the same time (day or shift) on another. With only monthly trend data it is not possible (except with the random exercise) to determine whether this occurs. The Nursing Workload Committee, as with most sites, does not appear to be actively involved in monitoring staffing.

Data on skillmix and the use overtime, casual and agency staff are not routinely collected at the ward level and thus not discussed with the Clinical Nurse Managers. Discussion with CNMs on the random exercise confirmed that for many this was the first occasion they had to consider such issues.

5. USE OF OVERTIME, CASUAL, AGENCY AND BANK NURSING HOURS

Summary data provided by Raelene Messenger indicate that overtime rates at ASH seem consistent at around 7% and casual staff hours around 3 - 4%. At Katherine Hospital there was a peak of 8.35% overtime hours on the Paediatric ward in May but the mean range across the Hospital is 4.13 – 5.28%. RDH has been using fewer overtime and agency hours from January (7.52%) to April (5.11%); use of casual staff has gone down from 3.5% to 2.89% and the use of agency from 5.6% to 4.23%. These data reflect the increased number of FTEs employed.

6. QUALITY INDICATORS

Quality data were provided by Melissa Brown (A/Principal Safety and Quality Advisor) for January – May 2009 for all five hospitals. However these are not specifically nursing sensitive indicators which have been shown to be affected by nursing numbers and skillmix. Quality indicators monitored include medication errors, incidents of pressure areas and falls, complaints, sentinel events, in-hospital deaths and take own leave. The data are collected using a paper-based system. However RiskMan was approved for introduction 1st July 2009. This is a web-based application for incident and risk management which should provide more accurate and timely data.

Ms Brown notes that most of the indicators are below national benchmarks from the Australian Council on Healthcare Standards (ACHS). Rates of incidents are trending up at Royal Darwin Hospital but this is more likely to be due to better reporting than previously. There is little else of note and it is not possible to link these outcomes with nurse staffing.



APPENDICES

Appendix 1: NHPPD summary Dec 08 - May 09

Understaffing by >10%

Month 2008/2009	Date	Authorized Beds	Benchmark NHPPD	December			January			February			March			April			May		
				Occupied Bed Numbers	Actual NHPPD	Variance	Occupied Bed Numbers	Actual NHPPD	Variance	Occupied Bed Numbers	Actual NHPPD	Variance	Occupied Bed Numbers	Actual NHPPD	Variance	Occupied Bed Numbers	Actual NHPPD	Variance	Occupied Bed Numbers	Actual NHPPD	Variance
Alice Springs Hospital	Medical	45	5.75	43	5.02	13.7	43	4.98	13.39	44	5.03	12.92	44	5.22	-9.22	24	6.00	5.74			
	Continuing Care Ward	30	5.38	29	4.89	-9.11	29	4.83	-9.29	29	4.98	-7.43	28	5.30	-13.12	20	4.03	-19.4			
	Surgical	40	0.00	20	0.74	13.33	22	0.13	2.17	27	0.37	5.13	28	2.71	14.13	21	7.50	25.00			
	Paediatrics	12	5.00	13	5.21	4.3	13	5.10	2	1	4.76	-4.3	12	5.24	14.18	13	5.20	4.00			
	Renal Ward	16	7.57	15	7.91	4.89	15	7.43	-1.85	14	8.52	12.39	14	8.52	13.87	14	8.52	13.87			
	Maternity	7	7.50	7	8.17	8.93	6	6.68	-10.93	7	7.10	-4.53	7	7.37	-7.73	7	7.63	4.40			
	Special Care Nursery	8	7.50	8	3.12	3.31	14	3.22	6.42	14	4.81	14.24	14	3.48	15.56	13	3.48	15.56			
	Diagnosis - In-Patient	6 chairs	2.02	2.02	-7.41	21	2.19	0.88	50	2.97	-2.47	48	2.81	-4.98	47	2.26	-3.29				
	Dialysis - Flynn Drive	24 chairs	2.43	2.43	7.3	5	27.99	27.23	5	28.42	29.19	4	22.08	0.28	7	20.70	5.9				
	ICU - CCU - HDU	5	22.00	6	19.48	11.44	6	19.48	11.44	6	19.48	11.44	6	19.48	11.44	6	19.48	11.44			
Gove District Hospital	Medical/Paediatrics	12	1.30	17	4.91	9.68	16	4.0	8.87	13	5.81	29.2	16	4.86	8.06	15	4.86	10.16			
	Maternity Ward 2	5	0.32	6	6.98	10.38	8	6.84	8.27	6	9.02	43.66	4	11.08	75.17	4	21.67	241.23			
	Medical	26	4.63	22	4.43	-4.83	20	4.91	5.61	22	4.6	-1.08	20	4.84	6.31	20	4.82	3.81			
	Surgical	15	4.90	7	9.89	113.21	11	6.94	54.13	8	8.61	93.31	8	8.18	81.94	4	8.64	47.51			
	Paediatrics	5	0.45	9	6.37	-1.2	6	7.57	17.4	7	8.20	28.34	9	6.97	1.8	7	8.34	29.32			
	Maternity	2.45	2.45	10	2.4	-1.23	15	1.65	-31.21	10	2.47	1.46	10	2.53	4.91	10	2.58	6.20			
	Dialysis - NDI	7 chairs	2.45	2.45	10	2.4	-1.23	15	1.65	-31.21	10	2.47	1.46	10	2.53	4.91	10	2.58	6.20		
	Medical	25	5.75	27	5.54	-3.3	30	5.93	3.13	28	6.13	6.81	28	6.44	12.00	24	5.91	2.78			
	Medical - 4A	30	5.75	29	5.21	-9.39	30	5.87	1.22	30	5.87	-1.39	29	5.97	3.83	28	5.76	0.17			
	Medical - 4B	12	5.05	12	5.42	7.82	10	5.70	-3.06	12	5.7	12.87	12	5.79	18.67	12	5.69	10.50			
Royal Darwin Hospital	Medical - ICC	10	5.68	10	5.72	-2.72	10	5.70	-3.06	10	5.88	-0.85	10	5.88	-0.51	10	6.77	-1.87			
	Medical - Renal	6	0.00	6	7.18	19.62	9	7.70	28.33	10	6.91	15.17	10	7.19	19.83	11	6.71	11.83			
	Medical - Hospice	1	5.00	6	5.63	14.6	6	6.28	25.6	8	7.27	43.4	8	7.18	43.4	8	6.82	38.4			
	Rehab	3	9.00	6	9.27	29.4	23	6.11	1.85	23	6.08	1.39	23	6.55	5.90	23	6.16	2.67			
	Surgical - ZA	24	5.75	23	5.72	-4.87	23	5.77	0.35	29	5.79	0.7	28	6.13	6.84	28	6.34	10.28			
	Surgical - 2B	30	5.65	27	5.48	-6	25	5.62	-8.6	29	5.45	-6.52	30	5.71	-2.08	29	5.68	-2.57			
	Orthopaedic - 3A	15	5.75	20	5.73	-0.35	21	5.80	0.67	24	5.65	1.74	24	5.67	2.09	23	5.63	2.09			
	3B	24	7.30	21	8.84	17.87	23	8.22	9.6	23	8.42	12.27	23	9.02	2.09	20	9.73	29.73			
	Maternity	21	6.00	18	7.15	19.17	20	7.00	16.67	21	7.24	20.67	19	7.8	20.00	21	7.58	26.33			
	Paediatrics - 4B	15	0.45	15	7.73	19.84	16	7.85	23.36	17	7.61	17.98	18	8.44	33.95	16	8.15	26.36			
Special Care Nursery	Paediatrics - 7D	15	5.00	25	8.15	1.68	25	8.40	5	22	16.09	23.58	26	9.29	14.13	25	9.38	10.17			
	Maternity	15	14.75	15	10.95	-15.96	16	11.66	-7.13	19	9.13	-12	19	10.12	-29.00	15	10.12	-29.00			
	ICU	5	31.00	5	36.51	21.87	7	39.07	-6.01	6	44.26	4.48	5	48.07	85.68	5	36.62	15.88			
	ICU	10	12.00	5	9.69	-19.25	6	14.37	10.53	6	10.34	-3.66	7	0.15	-95.73	6	13.91	15.95			
	ICU	9	14.10	9	9.53	32.77	7	12.36	12.71	8	11.02	-3.14	8	10.61	-26.43	8	10.76	24.01			
	ICU	35	9.3	37	2.92	20.16	39	2.91	20.16	38	2.95	0.52	38	3.07	26.41	38	2.81	15.58			
	Dialysis - Nightshift	20 chairs	2.43	2.43	1.37	43.62	6	1.42	-41.56	6	1.41	-4.02	5	1.49	30.43	6	0.92	37.86			
	Dialysis - Palmerston	6 chairs	2.43	2.43	1.37	43.62	6	1.42	-41.56	6	1.41	-4.02	5	1.49	30.43	6	0.92	37.86			
	Dialysis - Ngulu	6 chairs	2.43	2.43	1.37	43.62	6	1.42	-41.56	6	1.41	-4.02	5	1.49	30.43	6	0.92	37.86			
	Dialysis - In-Patient	6 chairs	2.43	2.43	1.37	43.62	6	1.42	-41.56	6	1.41	-4.02	5	1.49	30.43	6	0.92	37.86			
Tennant Creek Hospital	Ward 1 Med/Surg/Peds	20	4.90	9	6.22	33.76	10	2.06	2.17	11	6.08	30.75	12	5.99	15.61	10	6.10	31.18			
	Dialysis	5	2.43	16	2.11	-13.31	15	30.33	15.41	16	2.01	-17.1	16	2.11	-33.14	16	2.01	-46.51			

Implementation of the NHPPD Management Tool for Nursing Staffing Levels

Date: 26/3/2009	Authorised Man	Manchment	Occupation	Units	Manchment	Actual	Actual	Reason for Difference	(their absence or required additional staff)
Medical Surgical	45	5.75	44	226	5.14	0	0.61		Overnight staffing was low 26 patients only & RN on sick (one being new grad)
Pediatrics	40	6.00	26	164	7.36		1.36	10 discharges throughout day with 26 patients on shift (one being new grad)	
Rural Ward	12	6.00	14	68	4.86		0.14	OVERTIME for patient care on 26/3/09	Additional staff needed to cover all units
Maternity ICU - CCU - ICU	16	7.57	11	116	10.55		2.99		
Special Care Nursery	8	7.50	7	50	7.14		-0.36		
Dialysis in Patient	24 chairs	2.43	61	102	2		0.43		
Medical/Pediatrics	22	4.00	11	76	7.00		1.30		
Maternity Ward 2	8	6.32	5	52	10.4		4.08		
Medical/Surgical	28	4.66	22	84	4.37		0.38		
Maternity	8	4.40	6	26	4.72		0.32		
Dialysis - RHD	7 chairs	2.43	11	24	2.18		0.25		
Medical - 4A	25	5.75	28	173	5.97		0.22		
Medical - 4B	10	7.00	10	60	7.00		0.00		
Medical - 4C	10	5.86	10	60	6.00		0.14		
Medical - 4D	12	6.00	12	72	5.92		-0.08		
Medical - 4E	18	6.00	8	60	7.33		1.33		
Surgical - 2A	24	6.00	24	176	7.33		1.33		
Surgical - 2B	49	7.75	58	373	6.97		-0.78		
Orthopaedic - 2A	30	6.00	30	180	6.70		0.70		
ICU	18	5.75	24	150	6.25		0.50		
Pediatrics - 5D	21	7.00	21	175	7.14		0.14		
Medical - 4F	15	6.00	14	144	6.00		0.00		
Maternity	21	8.00	21	252	10.67		2.67		
Special Care Nursery	18	14.25	18	132	2.8		-1.92		
ICU / Intensive	9	22.00	10	276	27.6		5.60		
ICU - High Acuity	9	14.18	8	28	10.75		-3.43		
Dialysis - High Acuity	20 chairs	2.43	17	72	1.90		-0.10		
Dialysis - High Acuity	6 chairs	2.43	6	24	3		0.57		
Dialysis - High Acuity	6 chairs	3.02	5	8	1.54		-1.48		
Dialysis - High Acuity	6 chairs	3.02	11	44	3.02		0.00		
Ward 3 Med/Surg/ICU	20	3.00	20	60	6.8		3.80		
Diabetic	6	2.43							

Appendix 4: NHPPD 17 & 24/4/09

Unit	Authorized Beds 24/04/2009	Benchmark NHPPD	Occupied Bed Numbers	Total Hours Required for Direct Care	NHPPD Actual	Variance Actual NHPPD - Allocated	Reasons for Difference	Notes Additional staff required
Unit: 17/24/09 Alice Springs Hospital	35	5.75	34	176	5.10	-0.57	Information not supplied by CHS	
Medical	30	5.38	30	147.5	4.92	-4.45	Information not supplied by CHS	
Surgical	30	6.00	25	170	6.8	0.80	Information not supplied by CHS	
Paediatrics	12	5.00	14	68	4.86	-4.13	Beds open on ward	
Renal Ward	16	7.57	13	116	8.92	1.35	Not all beds in use	
Maternity	10	5.00	10	50	6.8	1.80	Information not supplied by CHS	
Continuing Care Ward								
ICU - CCU - HDU	8	22.00	6	138.5	19.75	2.25	Information not supplied by CHS	
Special Care Nursery	6	7.50	4	62	13	5.50	Information not supplied by CHS	
Analysis - Inpatient	8 chairs	3.07	17	30	1.88	-1.19	Information not supplied by CHS	
Discharge - Inpatient	24 chairs	2.43	50	120	2.4	0.03	Information not supplied by CHS	
Govs District Hospital	27	3.50	14	84	6	1.50	Information not supplied by CHS	
Medical/Paediatrics								
Maternity Ward 2	8	6.32	4	32	8	1.68	Information not supplied by CHS	
Katherine Hospital	17/04/2009							
Medical/Surgical	28	4.65	23	162	3.96	-0.21	Information not supplied by CHS	
Paediatrics	18	1.50	8	60	8.5	1.00	Information not supplied by CHS	
Assembly	8	6.45	6	60	10	3.55	Information not supplied by CHS	
Analysis - MIM	7 chairs	2.43	14	34	1.71	-0.72	Information not supplied by CHS	
Royal Darwin Hospital	24/04/2009							
Medical - 4A	25	5.75	24	128	5.33	-0.42	Information not supplied by CHS	
Medical - 4B	10	3.75	20	84	6.07	0.82	Information not supplied by CHS	
Medical - 4C	12	2.05	13	66	5.5	0.45	Information not supplied by CHS	
Medical - ICU	10	5.88	10	60	6	0.12	Information not supplied by CHS	
Medical - Renal	12	6.00	8	48	6.5	2.50	Information not supplied by CHS	
Medical - Hospice	8	5.00	8	40	6.7	1.70	Information not supplied by CHS	
Renals	0	6.00	22.4	172	7.69	1.68	Information not supplied by CHS	
Surgical - 2A	24	5.75	28.2	168	5.1	-0.66	Information not supplied by CHS	
Surgical - 2B	30	5.83	30.6	176	5.75	-0.08	Information not supplied by CHS	
Orthopaedic - 3A	18	5.75	21	168	5.87	-0.77	Information not supplied by CHS	
Orthopaedic - 3B	24	7.50	24	176	7.33	-0.17	Information not supplied by CHS	
Paediatrics - 5B	21	6.00	21.7	165	7.6	1.60	Information not supplied by CHS	
Paediatrics - 7H	15	6.40	17.7	156	8.89	3.47	Information not supplied by CHS	
Maternity	24	8.00	25.2	157.5	8.27	-1.73	Information not supplied by CHS	
Special Care Nursery	18	14.26	17.8	168	9.33	-4.93	Information not supplied by CHS	
ICU / HDU	9	22.00	13.4	354	26.42	4.42	Information not supplied by CHS	
ICU	9	14.10	5	57.5	11.6	-2.00	Information not supplied by CHS	
ICU - Nightshift	20 chairs	2.43	43	69	1.6	-0.83	Information not supplied by CHS	
Dialysis - Palmerston	8 chairs	2.43	8	48	2	-0.43	Information not supplied by CHS	
Dialysis - Nguiu	6 chairs	2.43	6	36	1.33	-1.10	Information not supplied by CHS	
Dialysis - Inpatient	6 chairs	3.07	11	40	3.64	0.67	Information not supplied by CHS	
Tennant Creek Hospital	17/04/2009							
Ward 1 Med/Surgical	20	1.50	20	60	6	4.50	Information not supplied by CHS	
Dialysis	n	2.43					Information not supplied by CHS	

Implementation of the NHPPD Management Tool for Nursing Staffing Levels

Appendix 5: NHPPD 16/5/09

Date: 16/02/2009	Actual Beds	Bedside Mark	Unoccupied Beds	Less hours available for direct care	NetPPD Actual	Variances Actual/PPPD	Reasons for Difference	Times Available by reason of additional staff
Medical Surgical	25 30	6.76 5.28	26 28	142 150	6.58 5.36	2.07 2.00	at job increased v high acuity needs subject to physiological and psychological needs.	Assessment shift employed in cover high acuity needs shift
Pediatrics	40	5.00	18	142	7.89	1.89	1 pt RT from ICU needs 1.1 hrs fully available	Inviting case only 1 engineer shift member, other 2 not familiar with room ward
Renal Ward	12	5.00	14	70	5	0.00		
Maternity	16	7.87	11	120	12	4.43		
Continuing Care Ward	20	6.00	20	76	3.0	1.20		
ICU - CCU - HDU	6	22.00	5	152	39.4	5.40		
Special Care Nursery	A	7.46	7	66	6.57	1.07		
Medical - Intensive	6 chairs	3.42	13	48	3.89	0.47		
Dalyell - Ryan Drive	21 chairs	2.10	49	111	2.78	0.35		
Grove District Hospital	29	4.46					12 and covered for typical maintenance 6 1 (1P team)	
Medical - 4A	0	5.25	3	48	10.33	16.61		
Medical - 4B	20	4.92	21	146	4.67	0.64		
Medical - 4C	15	4.89	6	68	8.5	4.00		
Medical - 4D	6	6.47	6	66	10.33	3.00		
Medical - 4E	7 chairs	2.43	11	37	2.51	0.51		
Medical - 4A	25	5.75	21	128	6.1	0.35		
Medical - 4B	30	5.72	29.4	177.5	6.04	0.29		
Medical - 4C	17	4.05	17	74	4.67	0.67		
Medical - 4D	10	5.84	10	62	5.29	0.30		
Medical - 4E	15	6.00	11.5	72.5	6.29	0.30		
Medical - 4F	6	5.08	6	38	6.29	1.29		
Medical - 4G	26	6.00	22.6	146	6.44	0.44		
Medical - 4H	30	5.93	27.3	173	6.34	0.51		
Medical - 4I	10	5.72	20.5	100	6.04	0.29		
Medical - 4J	24	7.90	17.7	100.6	10.5	1.80		
Medical - 4K	21	6.00	20.4	132	7.45	1.45		
Medical - 4L	15	6.45	16.3	135.5	8.31	1.85		
Medical - 4M	24	6.00	20.5	112	7.19	2.01		
Medical - 4N	16	14.74	18.64	100	8.90	5.71		
Medical - 4O	18	22.00	16	261	27.19	5.19		
Medical - 4P	9	14.16	8.4	115	10.89	2.22		
Medical - 4Q	20 chairs	2.43	6.40	78	12.17	149.74		
Medical - 4R	6 chairs	2.43	3.3	48	11.43	6.80		
Medical - 4S	6 chairs	2.43	1.3	6	2.25	4.80		
Medical - 4T	5 chairs	3.02	4.8	48	10.43	7.41		
Medical - 4U	20	4.90						
Medical - 4V	6	4.43		12	4.8	0.37		

Implementation of the NHPPD Management Tool for Nursing Staffing Levels

Appendix 6: Skillmix 26/3/09

Alice Springs Hospital

TOTAL HOURS	RR Hours	RR %	ER %	OT %	CRIM	OT House	OT %	Abscency	Abscency %	Final Hrs	Final %	Bank Hrs	Bank %	Atypical Staffing
	Alice Springs Inpatient													
	Alice Springs community													
66	66	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	1 Overcast trained nurses (4 advanced skills), 2 more (3 advanced skills), 2 more (3 advanced skills), 3 more (3 advanced skills), 1 overcast (3 advanced skills).
30	30	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
50	50	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
220	220	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
76	76	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
40	40	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
46	46	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
116	116	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
24	24	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
34	34	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
29	29	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
85	85	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
43	43	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
21	21	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
0	0	0%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
70	70	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
24	24	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
40	40	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
102	102	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
	Alice Springs: Rural Ward													
74	74	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
74	74	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
70	70	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
80	80	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
30	30	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
56	56	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
10	10	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
184	184	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
	Alice Springs: Europe													
50	50	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
48	48	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
40	40	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
151	151	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
14	14	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
18	18	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
20	20	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
30	30	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	
50	50	100%	0%	0%	0	0	0%	0	0%	0	0%	0	0%	

Implementation of the NHPPD Management Tool for Nursing Staffing Levels

Appendix 7: Skillmix 26/3/09

Royal Darwin Hospital 1

TOTAL NURSING HOURS	PN HOURS	PN HOURS	PN %	PN %	# of FT NURSES	# of FT NURSES	C:MM Inclusion	OUT NURSES	OUT %	Agency %	Agency %	Final %	Final %	Final %	Agency Settings	Agency Settings	Agency Settings	
Royal Darwin Hospital																		
NHL: need 40																		
72	64	0	89%	11%	3	1	Nu	16	22%	0	0%	16	22%	0	0%	Agency settings	Agency settings	Agency settings
81	81	0	100%	0%	6	2		11	23%	0	0%	11	23%	0	0%	Agency settings	Agency settings	Agency settings
88	88	0	100%	0%	5	1		10	20%	0	0%	10	20%	0	0%	Agency settings	Agency settings	Agency settings
NHL: need 10																		
65	65	0	100%	0%	3	2	Nu	0	0%	0	0%	3	12%	0	0%	Agency settings	Agency settings	Agency settings
50	50	50	100%	0%	7	0		0	0%	0	0%	7	14%	0	0%	Agency settings	Agency settings	Agency settings
48	48	0	75%	25%	1	3		0	0%	0	0%	1	2%	0	0%	Agency settings	Agency settings	Agency settings
NHL: need 25																		
74	68	6	92%	8%	2	1	Nu	0	0%	0	0%	2	3%	0	0%	Agency settings	Agency settings	Agency settings
74	74	0	100%	0%	2	1		0	0%	0	0%	2	3%	0	0%	Agency settings	Agency settings	Agency settings
20	16	4	80%	20%	2	0		0	0%	0	0%	2	10%	0	0%	Agency settings	Agency settings	Agency settings
NHL: need 10																		
24	24	0	100%	0%	1	2	Nu	0	0%	0	0%	1	4%	0	0%	Agency settings	Agency settings	Agency settings
30	30	0	100%	0%	3	0		0	0%	0	0%	3	10%	0	0%	Agency settings	Agency settings	Agency settings
NHL: need 10																		
24	24	0	100%	0%	2	0	Nu	0	0%	0	0%	2	8%	0	0%	Agency settings	Agency settings	Agency settings
24	24	0	100%	0%	2	0		0	0%	0	0%	2	8%	0	0%	Agency settings	Agency settings	Agency settings
20	20	0	100%	0%	2	0		0	0%	0	0%	2	10%	0	0%	Agency settings	Agency settings	Agency settings
NHL: need 10																		
11	11	0	100%	0%	1	0	Nu	0	0%	0	0%	1	9%	0	0%	Agency settings	Agency settings	Agency settings
15	15	0	100%	0%	1	0		0	0%	0	0%	1	7%	0	0%	Agency settings	Agency settings	Agency settings
18	18	0	100%	0%	0	0		0	0%	0	0%	0	0%	0	0%	Agency settings	Agency settings	Agency settings
20	20	0	100%	0%	0	0		0	0%	0	0%	0	0%	0	0%	Agency settings	Agency settings	Agency settings
NHL: need 10																		
62	62	0	100%	0%	2	2	Nu	0	0%	0	0%	2	3%	0	0%	Agency settings	Agency settings	Agency settings
NHL: need 25																		
86	86	0	100%	0%	3	3	Nu	0	0%	0	0%	3	4%	0	0%	Agency settings	Agency settings	Agency settings
82	82	0	100%	0%	7	2		11	20%	0	0%	7	9%	0	0%	Agency settings	Agency settings	Agency settings
99	99	0	100%	0%	0	0		0	0%	10	10%	0	0%	0	0%	Agency settings	Agency settings	Agency settings
NHL: need 25																		
92	84	8	90%	10%	6	1	Nu	8	13%	0	0%	6	7%	0	0%	Agency settings	Agency settings	Agency settings
94	94	0	100%	0%	7	0		0	0%	0	0%	7	8%	0	0%	Agency settings	Agency settings	Agency settings
94	94	0	100%	0%	1	1		0	0%	0	0%	1	1%	0	0%	Agency settings	Agency settings	Agency settings
NHL: need 25																		
93	93	0	100%	0%	1	1	Nu	0	0%	0	0%	1	1%	0	0%	Agency settings	Agency settings	Agency settings
93	93	0	100%	0%	2	2		0	0%	0	0%	2	2%	0	0%	Agency settings	Agency settings	Agency settings
98	98	0	100%	0%	4	0		0	0%	0	0%	4	4%	0	0%	Agency settings	Agency settings	Agency settings
100	100	0	100%	0%	0	0		0	0%	0	0%	0	0%	0	0%	Agency settings	Agency settings	Agency settings

Appendix 9: Skillmix 26/3/09

Royal Darwin Hospital 3

TOTAL HOURS	RN Hours	EN Hours	RM %	EN %	# of FT Staff	# of PT Staff	CHM Included	O/T Hours	OT %	Agency Hrs	Agency %	Float Hrs	Float %	Bank Hrs	Bank %	Atypical Staffing	Adverse/Near Miss Events
RDH: dialysis Nightcliff																	
40	32	8	80%	20%	2	2	No	0	0%	0	0%	0	0%	0	0%	Coordinator had Patient load	
32	24	8	75%	25%	3	1		0	0%	0	0%	0	0%	0	0%		
0	0	0			0	0		0	0%	0	0%	10		0			
72																	
RDH: dialysis Palmerston																	
16	16	0	100%	0%	1	1	No	0	0%	0	0%	0	0%	0	0%		
8	8	0	100%	0%	1	0		0	0%	0	0%	0	0%	0	0%		
0	0	0			0	0		0	0%	0	0%	10		0			
24																	
RDH: dialysis liguiu																	
8	8	0	100%	0%	1	0	No	0:30	0%	0	0%	0	0%	0	0%		
0	0	0						0		0		0		0			
0	0	0						0		0		10		0			
0																	
RDH: dialysis inpatient																	
24	24	0	100%	0%	3	0	No	0	0%	0	0%	0	0%	0	0%	+ 5 pts required organising and reworking to other unit for dialysis	
16	16	0	100%	0%	2	0		0	0%	0	0%	0	0%	0	0%		
0	0	0			0	0		0	0%	0	0%	0	0%	0	0%		
40																	

Appendix 10: Skillmix 26/3/09

Katherine Hospital

TOTAL HOURS	RN Hours	EN Hours	RN %	EN %	# of FT Staff	# of PT Staff	CNM included	O/T Hours	O/T %	Agency hrs	Agency %	Float hrs	Float %	Bank hrs	Bank %	Atypical Staffing	Adverse/Near Miss Events
Katherine Hospital																	
Katherine Hospital: med/surg																	
32	22	8	69%	25%	3	1	No	8	25%	0	0%	0	0%	0	0%		NI
32	24	8	75%	25%	3	1		0	0%	0	0%	0	0%	0	0%		NI
30	20	10	67%	33%	3	0		0	0%	0	0%	0	0%	0	0%		NI
94																	
Paediatrics																	
32	24	8	75%	25%	4	0	No	0	0%	0	0%	0	0%	0	0%	AGENT RR	NI
16	16	0	100%	0%	2	0		0	0%	0	0%	0	0%	0	0%	AGENT RR	NI
20	20	0	100%	0%	2	0		0	0%	0	0%	0	0%	0	0%		NI
68																	
Maternity																	
24	24	0	100%	0%	2	1	No	0	0%	0	0%	0	0%	0	0%		NI
16	16	0	100%	0%	2	0		0	0%	0	0%	0	0%	0	0%		NI
16	16	0	100%	0%	1	1		0	0%	0	0%	0	0%	0	0%		NI
56																	
Renal																	
16	16	0	100%	0%	2	0	Yes	0	0%	0	0%	0	0%	0	0%		NI
8	8	0	100%	0%	1	0		0	0%	0	0%	0	0%	0	0%		NI
0	0	0															
24																	

Appendix 11: Skillmix 26/3/09

Gove & Tennant Creek Hospitals

TOTAL HOURS	RH Hours	EH Hours	RH %	EH %	# of FT Staff	# of PT Staff	CMM included	O/T Hours	O/T %	Agency hrs	Agency %	Float hrs	Float %	Bank hrs	Bank %	Atypical Staffing	Adverse/ Near Miss Events
Gove Hospital																	
Gove Hospital: medical/paediatrics																	
52	52	0	100%	0%	4	2	No	0	0%	0	0%	0	0%	0	0%	+RM running OPD AMC clinic	
0																	
0																	
52																	
Gove Hospital: maternity wd 2																	
32	32	0	100%	0%	0	0	No	8	25%	0	0%	0	0%	0	0%	OVERNIGHT RESPITE	UNKNOWN
24	24	0	100%	0%	0	0		0	0%	0	0%	0	0%	0	0%	OVERNIGHT ABE	UNKNOWN
20	10	0	50%	0%	0	0		10	50%	0	0%	0	0%	0	0%	SICK LEAVE X 2	
76																	
Tennant Creek Hospital																	
Ward 1 Med/Surg/Paeds																	
34	24	10	71%	29%	1	1		0	0%	24	71%	0	0%	0	0%	1 RM over flight	
16	16		100%	0%				0	0%	0	0%	0	0%	0	0%		
16	16		100%	0%				0	0%	0	0%	0	0%	0	0%		
68																	
Dialysis																	
24	24		100%	0%				0	0%	0	0%	0	0%	0	0%		
16	16		100%	0%				0	0%	0	0%	0	0%	0	0%		
16	16		100%	0%				0	0%	0	0%	0	0%	0	0%		
56																	

Royal Darwin Hospital 1

TOTAL HOURS	RM hours	EN hours	EN %	STAFF	# of STAFF	CRMI	CRMI Included	OT hours	OT %	Average y/hrs	Average y/hrs	Final hrs	Final %	Final hrs	Final %	Average y/hrs	Average y/hrs	Final hrs	Final %	Additional Staffing	
R004 - ORDN Hospital 24/4/09																					
22	12	10	45%	4	2	Nil		0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
24	12	12	50%	4	2	Nil		0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
30	10	20	67%	5	3	Nil		0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
R05 - ...																					
72	24	48	67%	8	4	NO		0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
64	24	40	62%	8	4	NO		0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
40	10	30	75%	5	3	Nil		0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
R12 - ...																					
172	20	152	88%	10	6	Nil		0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
172	20	152	88%	10	6	Nil		0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
R18 - ...																					
72	56	16	22%	8	5	NO (RPO)		0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
64	56	8	10%	8	5	NO (RPO)		0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
40	20	20	50%	5	3	Nil		0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
R24 - ...																					
40	10	30	75%	5	3	YES		0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
40	10	30	75%	5	3	YES		0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
R26 - ...																					
40	10	30	75%	5	3	YES		0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
168	40	128	76%	10	6	YES		0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		

Appendix 14: Skillmix 24/4/09

Royal Darwin Hospital 2

TOTAL HOURS	NR HOURS	CR HOURS	RM %	PN %	# OF # OF PI	CHME	ONE	OTC %	NUMBERS	APPROX	FRONT	BACK	APPROX
REMI:ICU					STRT	INVESTIG	MEASUR		%	SCORING	%	%	%
52	54	3	87%	13%	4	NO	6	10%	0	0%	0	0	1 100% 2000
64	40	24	62%	38%	4			0%	0	0%	0	0	1 100% 2000
20	40	10	50%	50%	1			0%	0	0%	0	0	2 100% 2000
NR:ICU													
44	10	24	63%	37%	5	NO (REPO)	0	0%	0	0%	0	0	4 100% 2000
54	22	24	57%	43%	3			0%	0	0%	0	0	4 100% 2000
12	26	10	70%	30%	1			0%	0	0%	0	0	4 100% 2000
103													
NR:ICU													
40	10	0	42%	58%	1	YES	0	0%	0	0%	0	0	4 100% 2000
30	22	10	50%	50%	1			0%	0	0%	0	0	4 100% 2000
40	20	20	50%	50%	1			0%	0	0%	0	0	4 100% 2000
120													
NR:ICU													
84	81	0	100%	0%	7	YES	0	0%	0	0%	0	0	4 100% 2000
73	73	0	100%	0%	6		17	24%	0	0%	0	0	4 100% 2000
70	70	0	100%	0%	5		0	1%	0	0%	0	0	4 100% 2000
NR:ICU													
70	70	0	100%	0%	5	NO	0	0%	0	0%	0	0	4 100% 2000
40	40	0	100%	0%	1			0%	0	0%	0	0	4 100% 2000
40	40	0	100%	0%	1			0%	0	0%	0	0	4 100% 2000
70	70	0	100%	0%	5			0%	0	0%	0	0	4 100% 2000
NR:ICU													
60	60	0	100%	0%	10	NO	0	0%	0	0%	0	0	4 100% 2000
72	72	0	100%	0%	9			0%	0	0%	0	0	4 100% 2000
90	90	0	100%	0%	9			0%	0	0%	0	0	4 100% 2000
NR:ICU													
57	57	0	100%	0%	4	NO	0	0%	0	0%	0	0	4 100% 2000
40	40	0	100%	0%	0			0%	0	0%	0	0	4 100% 2000
40	40	0	100%	0%	4			0%	0	0%	0	0	4 100% 2000
112													
NR:ICU													
216	216	0	100%	0%	1	YES	33	20%	0	0%	0	0	4 100% 2000
16	16	0	100%	0%	2			0%	0	0%	0	0	4 100% 2000
20	20	0	100%	0%	2			0%	0	0%	0	0	4 100% 2000
57	57	0	100%	0%									

Investigation of staffing practices in relation to a patient death

Appendix 15: Skillmix 24/4/09
Royal Darwin Hospital 3

TOTAL HOURS	RN Hours	EN Hours	RN %	EN %	# of FT Staff	# of PT Staff	CNM included	O/T Hours	O/T %	Agency Hrs	Agency %	Float Hrs	Float %	Bank Hrs	Bank %	Atypical Staffing
RDH: dialysis Nightshift																
37	29	8	78%	22%	4	1	No	5	14%	0	0%	0	0%	0	0%	
32	32	0	100%	0%	3	1		0	0%	0	0%	0	0%	0	0%	
0	0	0						0								
69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RDH: dialysis Palmerston																
16	16	0	100%	0%	2	0	No	0	0%	0	0%	0	0%	0	0%	
0	0	0			0	0		0		0		0		0		
0	0	0						0		0						
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RDH: dialysis Nguiu																
8	8	0	100%	0%	1	0	No	0	0%	0	0%	0	0%	0	0%	
0	0	0			0	0		0		0		0		0		
0	0	0								0						
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RDH: dialysis inpatient																
24	24	0	100%	0%	100	0	No	0	0%	0	0%	0	0%	0	0%	x 1 CNS x 1 Overseas RN x 1 Jnr HDX RN
16	16	0	100%	0%	100	0		0	0%	0	0%	0	0%	0	0%	x 1 Overseas RN
0	0	0						0		0						
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Appendix 16: Skillmix 17/4/09

Katherine Hospital

TOTAL HOURS	RN Hours	EN Hours	RN %	EN %	# of FT Staff	# of PT Staff	CNM included	O/T Hours	O/T %	Agency Hrs	Agency %	Float Hrs	Float %	Bank Hrs	Bank %	Atypical Staffing
Katherine Hospital																
Katherine Hospital: med/surg																
40	24	16	60%	40%	5	1	No	8	25%	0	0%	0	0%	0	0%	
32	24	8	50%	25%	4				0%	0	0%	0	0%	0	0%	
30	20	10	67%	33%	3				0%	0	0%		0%		0%	
102																
Paediatrics																
24	16	8	67%	33%	3		No		0%	0	0%	0	0%	0	0%	
24	16	8	67%	33%	3				0%	0	0%	0	0%	0	0%	
20	20		100%	0%	2				0%	0	0%	0	0%	0	0%	
68																
Maternity																
24	24		100%	0%	2	1	No	0	0%	0	0%	0	0%	0	0%	
16	16		100%	0%	2			0	0%	0	0%	0	0%	0	0%	
20	20		100%	0%	2			0	0%	0	0%	0	0%	0	0%	
60																
Renal																
16	16		100%	0%	2		Yes	0	0%	0	0%	0	0%	0	0%	
8	8		100%	0%	1			0	0%	0	0%	0	0%	0	0%	
24																

Appendix 17: Skillmix 17/4/09

Gove & Tennant Creek Hospitals

TOTAL HOURS	RN Hours	EN Hours	EN RN %	EN %	# of FT Staff	# of PT Staff	CNM included	O/T Hours	O/T %	Agency Hrs	Agency %	Float Hrs	Float %	Bank Hrs	Bank %	Atypical Staffing
Gove Hospital																
Gove Hospital: medical/paediatrics																
32	52	0	100%	0%	0	0	No	0	0%	0	0%	0	0%	0	0%	OVERNIGHT RESPITE
24			100%	0%				0	0%	0	0%		0%		0%	OVERNIGHT A&E
20			100%	0%				0	0%	0	0%		0%		0%	
76																
Gove Hospital: maternity wd 2																
14	32	0	100%	0%	1	1	No	0	0%	0	0%		0%		0%	on call for 6 hrs
24	24	0	100%	0%	1			0	0%	0	0%		0%		0%	on call for 10 hours
20	20	0	100%	0%	1				0%	0	0%		0%		0%	
58																
Tennant Creek Hospital																
Ward 1 Med/Surg/Paeds																
32	24	8	75%	25%		1		0	0%	0	0%	0	0%	0	0%	nil
16	16		100%	0%				0	0%	0	0%	0	0%	0	0%	
16	16		100%	0%				0	0%	0	0%	0	0%	0	0%	
60																
Dialysis																
24	24		100%	0%				0	0%	0	0%	0	0%	0	0%	
16	16		100%	0%				0	0%	0	0%	0	0%	0	0%	
16	16		100%	0%				0	0%	0	0%	0	0%	0	0%	
56																

Investigation of staffing practices in relation to a patient death

Appendix 18: Skillmix 16/5/09

Alice Springs Hospital 1

TOTAL HOURS	RH (hours)	FN (hours)	RH %	FN %	# of FT Staff	# of PT Staff	CHU included	OUT hours	OUT %	Agency hrs	Agency %	Float hrs	Float %	Bank hrs	Bank %	Atypical Staffing
Alice Springs Hospital																
Alice Springs: maternity																
64	56	8	87%	13%	5	3	N/A	8	12%	0%	0%	0%	0%	0	0%	2 RN REG + 1 EN REG
48	48	0	100%	0%	5	1			0%	0%	0%	0%	0%	0	0%	2 EN REG
30	30	0	100%	0%	3	0			0%	0%	0%	0%	0%	0	0%	
142																
40	40	0	100%	0%	3	1	No	0	0%	0%	0%	0%	0%	0	20%	
40	40	0	100%	0%	3	2		0	0%	0%	0%	0%	0%	0	0%	
40	40	0	100%	0%	3	1		0	0%	0%	0%	0%	0%	0	0%	
120																
Alice Springs: ICU																
48	48	0	100%	0%	5	1	N/A	0	0%	0%	0%	0%	0%	0	0%	
48	48	0	100%	0%	4	2		0	0%	0%	0%	0%	0%	0	17%	
58	58	0	100%	0%	5	5		0	0%	0%	0%	0%	0%	10	17%	
152																
Alice Springs: Renal Dialysis																
Alice: KDU - Tertiary Unit																
32	32	0	100%	0%	3	1	N/A	0	0%	0%	0%	0%	0%	0	0%	
16	16	0	100%	0%	2	0		0	0%	0%	0%	0%	0%	0	0%	
0	0	0			0	0		0	0%	0%	0%	0%	0%	0	0%	
48																
Alice: RDU - Satellite Unit																
55	55	0	100%	0%	7	1		0	0%	0%	0%	0	0%	0	0%	FLOAT FROM INPATIENT DIALYSIS
56	48	8	86%	14%	7	7		0	0%	0%	0%	0	14%	0	0%	
0								0	0%	0%	0%	0	0%	0	0%	
111																
Alice: Renal Ward																
74	74	0	100%	0%	3	0	CME	24	100%	0	0%	0	0%	0	33%	ROSTERED RN & EN SICK LEAVE, CME & 2 RN FROM OUTREACH WARD
24	24	0	100%	0%	3	0		0	33%	0	0%	0	0%	0	33%	1 EN SICK LEAVE
20	20	0	100%	0%	2	0		0	0%	0	0%	0	0%	0	0%	
68																

Appendix 19: Skillmix 16/5/09

Alice Springs Hospital 2

TOTAL HOURS	RN Hours	EN Hours	RN %	EN %	# of FT Staff	# of PT Staff	CNM included	O/T Hours	O/T %	Agency Hrs	Agency %	Float Hrs	Float %	Bank Hrs	Bank %	Atypical Staffing	
Alice Springs: paediatrics																	
56	48	8	%	14%	4	3	No	0	0%		0%		0%	8	14%	X 1 New Grad	High needs patient required security and nursing restraint
36	36	0	100%	0%	6			0	0%		0%		0%	8	22%	x 1 New grad	
50	50		100%	0%	3	2		0	0%		0%		0%		0%	x 1 New grad	
142				0													
Alice Springs: surgical																	
62	46	16	74%	26%	6	1	N/A	0	0%		0%		0%	14	23%	1 RN NG + 1 EN NG	
48	48		100%	0%	5	1		0	0%	0	0%	0	0%	8	17%	1 RN NG	
40	30	10	75%	25%	4			0	0%	0	0%		0%		0%		
150													0		0		
Alice Springs: SCN																	
24	24	6	100%	25%	3			0	0%		0%		0%		0%	1 RN NG	
16	16	0	100%	0%	2			0	0%		0%		0%		0%		
20	20	0	100%	0%	2			0	0%		0%		0%		0%		
60																	

Appendix 20: Skillmix 16/5/09

Royal Darwin Hospital 1

TOTAL HOURS	RN Hrs	EN Hrs	RN %	EN %	# of FT Staff	# of PT Staff	CNM included	O/T Hours	O/T %	Agency Hrs	Agency %	Float Hrs	Float %	Bank Hrs	Bank %	Atypical Staffing
RDH: med 4A																
48	40	8	83%	17%	5	1		0	0%	0	0%	0	0%	0	0%	3 PCA spec 7 FNC
40	24	16	60%	40%	4	1		0	0%	0	0%	0	0%	0	0%	3 PCA spec 7 FNC
40	30	10	75%	25%	3	1		0	0%	0	0%	0	0%	0	0%	3 PCA spec 7 FNC
128																
RDH: med 4B																
80	56	24	70%	30%	4	2	No	0	0%	16	20%	0	0%	6	10%	
57.5	37.5	20	65%	35%	5	1		5.5	10%	12	21%	0	0%	0	0%	
40	40	0	100%	0%	2	2		0	0%	0	0%	0	0%	0	0%	
177.5																
RDH: med 7CC																
24	16	0	67%	0%	2	1	No	8	33%	0	0%	0	0%	0	0%	ONE NEW GRAD RN
24	16	0	67%	0%	1	2		0	0%	0	0%	0	0%	0	0%	ONE NEW GRAD EN
20	10	10	50%	50%	2	0		0	0%	0	0%	0	0%	0	0%	
68																
16	24	0	150%	0%	100	0	Yes	0	0%	0	0%	0	0%	0	0%	am shift - x1 RN new
16	16	0	100%	0%	50	50	no	0	0%	0	0%	0	0%	0	0%	pm shift x1 RN, on ward 3
20	20	0	100%	0%	100	0	no	0	0%	0	0%	0	0%	0	0%	x1 RN x1 EN both regular
52																
RDH: med hospice																
32	24	8	75%	25%	2	2	No	8	25%	0	0%	0	0%	0	0%	
21.5	21.5	0	100%	0%	2	1		5.5	26%	0	0%	0	0%	0	0%	
20	10	10	50%	50%	2	0		0	0%	0	0%	0	0%	0	0%	
73.5																
RDH: rehab																
16	8	8	50%	50%	2	0	No	0	0%	0	0%	0	0%	0	0%	agency RN for 6hrs + New Grad RN to cover sneave
14	14	0	100%	0%	1	0		0	0%	6	43%	0	0%	0	0%	
20	20	0	100%	0%	0	1		0	0%	0	0%	10	50%	0	0%	
50																

Investigation of staffing practices in relation to a patient death

Appendix 21: Skillmix 16/5/09

Royal Darwin Hospital 2

TOTAL HOURS	RN Hours	EN Hours	RN %	EN %	# of FT Staff	# of PT Staff	CNM included	O/T Hours	O/T %	Agency Hrs	Agency %	Float Hrs	Float %	Bank Hrs	Bank %	Atypical Staffing	
RDH: surg 2A																	
68	52	16	76%	24%	5	4	No	12	18%	8	12%	0	0%	0	0%	RN x 4hrs to perform Burns dressing on am shift	
48	40	8	83%	17%	5	1		0	0%	0	0%	8	17%	0	0%	RN x1 sick leave am CDU student x1 am shift	
30	20	10	67%	33%	0	3		0	0%	10	33%	0	0%	0	0%		
146																	
RDH: surg 2B																	
88	72	16	82%	18%	5	5	No	0	0%	16	18%	0	0%	0	0%	1 PCA special	
64	56	8	88%	13%	7	1		8	13%	0	0%	0	0%	0	0%		
40	30	10	75%	25%	3	1		0	0%	0	0%	0	0%	0	0%		
192																	
RDH: ortho 3A																	
70	54	16	77%	23%	5	1	No	8	11%	0	0%	8	11%	14	20%	ONE EN USED TO SPECIAL PATIENTS AS PCA	
63	55	8	87%	13%	4	2		7	11%	0	0%	15	24%	0	0%	One RN sent from another ward to PCA special patients, 1 X NEW GRAD	
40	40	0	100%	0%	2	2		0	0%	0	0%	0	0%	0	0%	1 X NEW GRAD	
173																	

Investigation of staffing practices in relation to a patient death

Royal Darwin Hospital 3

TOTAL HOURS	RN Hours	EN Hours	RN %	EN %	# of FT Staff	# of PT Staff	CNM Included	O/T Hours	O/T %	Agency Hrs	Agency %	Float Hrs	Float %	Bank Hrs	Bank %	Atypical Staffing
RDH: 3B																
64	56	8	88%	13%	6	2	No	0	0%	0	0%	0	0%	0	0%	ICIN on shift, supernumerary capacity one sick call covered by OT
56	56	0	100%	0%	3	2	No	8	14%	0	0%	8	14%	0	0%	
40	40	0	100%	0%	1	3	No	0	0%	0	0%	0	0%	0	0%	
150																
RDH: RAU																
72	64	8	88%	11%	5	4	No	8	11%	0	0%	0	0%	0	0%	1 SICK LEAVE
58.6	53.3	5.3	91%	9%	5	3		11	19%	0	0%	0	0%	0	0%	
50	50	0	100%	0%	1	4		0	0%	0	0%	0	0%	0	0%	
180.6																
RDH: paed 5B																
56	40	16	71%	29%	5	2	No (Wend)	8	14%	0	0%	16	29%	0	0%	1 EN caring for child with tracheostomy in a 1:3 allocation 2 New Graduates/1 EN caring for child with tracheostomy in a 1:3 allocation
56	40	16	71%	29%	3	4		0	0%	0	0%	0	0%	0	0%	1 RN caring for child with tracheostomy in a 1:2 allocation
40	30	10	75%	25%	2	2		0	0%	0	0%	0	0%	0	0%	
152																
RDH: paed 7B (ISOP)																
48	40	8	83%	17%	2	2	No	0	0%	0	0%	0	0%	0	0%	2 casual RN's no paed's exp 1 pt 2:1 special 2 overseas graduates 1:2:1 pt 1
37.5	32	5.5	85%	15%	2	3		5.5	15%	0	0%	0	0%	0	0%	3 EN's 1:2:1 pt 1 overseas graduate
50	20	30	40%	60%	2	1		0	0%	0	0%	0	0%	0	0%	
135.5																

Investigation of staffing practices in relation to a patient death

Royal Darwin Hospital 4

TOTAL HOURS	RN Hours	EN Hours	RN %	EN %	# of FT Staff	# of PT Staff	CNM included	O/T Hours	O/T %	Agency Hrs	Agency %	Float Hrs	Float %	Bank Hrs	Bank %	Atypical Staffing	
RDH: maternity (6A)																	
64	58	6	91%	9%	3	4	No	0	0%	0	0%	0	0%	6	9%	EN X 1, RN x1 SMW x1	
78	78	0	100%	0%	6	3		0	0%	0	0%	8	10%	0	0%	RN x3 SMW x 3	
70	70	0	100%	0%	2	4		2	3%	0	0%	0	0%	0	0%	Grad x 1	
212																	
RDH: SCN																	
48	40	16	83%	33%	4	3	No	0	0%	0	0%	8	17%	0	0%	1 new Grad	
48	48	8	100%	17%	5	2		8	17%	0	0%	0	0%	0	0%	1 new grad sent to 6a and EN on O/T	
70	70	0	100%	0%	3	4		0	0%	0	0%	0	0%	0	0%	1 new grad supernumary	
166																	
RDH: ICU/HDU																	
120	120	0	100%	0%	8	4	No	0	0%	0	0%	0	0%	0	0%		
40	40	0	100%	0%	3	2		0	0%	0	0%	0	0%	0	0%		
101	101	0	100%	0%	9	1		0	0%	0	0%	0	0%	0	0%		
261																	
RDH: CCU																	
32	32	0	100%	0%	3	1	No	0	0%	0	0%	0	0%	0	0%		
29.5	29.5	0	100%	0%	3	0		5.5	19%	0	0%	0	0%	0	0%		
30	30	0	100%	0%	1	2		0	0%	0	0%	0	0%	0	0%		
91.5																	

Royal Darwin Hospital 5

TOTAL HOURS	RN Hours	EN Hours	RN %	EN %	# of FT Staff	# of PT Staff	CNM included	O/T Hours	O/T %	Agency Hrs	Agency %	Float Hrs	Float %	Bank Hrs	Bank %	Atypical Staffing	
RDH: dialysis Nightcliff																	
40	32	8	80%	20%	3	2	No	0	0%	0	0%	0	0%	0	0%		
0	0	0			0	0		0		0		0		0			
0	0	0			0	0		0		0		0		0			
40																	
RDH: dialysis Palmerston																	
16	16	0	100%	0%	0	2	No	0	0%	0	0%	0	0%	0	0%		
24	24	0	100%	0%	1	2		8	33%	0	0%	16	67%	0	0%		
0	0	0			0	0		0		0		0		0			
40																	
RDH: dialysis Nguiu																	
8	8	0	100%	0%	1	0	No	0	0%	0	0%	0	0%	0	0%		
0	0	0			0	0		0		0		0		0			
0	0	0			0	0		0		0		0		0			
8																	
RDH: dialysis inpatient																	
32	32	0	100%	0%	66	33	No	0	0%	0	0%	0	0%	0	0%	am shift - x1 CNS, x2 RNs, X1 junior	
16	16	0	100%	0%	50	50	No	0	0%	0	0%	0	0%	0	0%	pm shift x1 CNS, x1 RN junior	
0	0	0						0		0		0		0			
48																	

Appendix 25: Skillmix 16/5/09

Katherine Hospital

TOTAL HOURS	RN Hours	EN Hours	RN %	EN %	# of FT Staff	# of PT Staff	CNM included	O/T Hours	O/T %	Agency Hrs	Agency %	Float Hrs	Float %	Bank Hrs	Bank %	Atypical Staffing
KH: Med/Surg																
36	20	16	60%	40%	3	2	No	8	22%		0%		0%		0%	1 EN on S/L
32	16	16	50%	25%	4			8	25%		0%		0%		0%	
30	20	10	67%	33%	1			0	0%		0%		0%	10	33%	1 RN on S/L
58																
KH: Paediatrics																
24	16	8	67%	33%	1	2	No	0	0%	0	0%	0	0%	0	0%	
24	24	0	100%	0%	1	3		0	0%	0	0%	0	0%	0	0%	
20	20	0	100%	0%	1	1		0	0%	0	0%	0	0%	0	0%	
68																
KH: Maternity																
26	3	0	12%	0%	3	0	No	10	38%	0	0%	0	0%	0	0%	1 RN S/L
16	2	0	13%	0%	1	1		0	0%	0	0%	0	0%	0	0%	
20	3	0	10%	0%	1	1		0	0%	0	0%	0	0%	0	0%	
62																
KH: Renal																
14	3	3	14%	0%	2	0	No	0	0%	0	0%	0	0%	0	0%	
8	3	0	13%	0%		1		0	0%	0	0%	0	0%	0	0%	
0	0	0			0	0		0								
22																

Appendix 26: Skillmix 16/5/09

Gove & Tennant Creek Hospitals

TOTAL HOURS	RN Hours	EN Hours	RN %	EN %	# of FT Staff	# of PT Staff	CNM included	O/T Hours	O/T %	Agency Hrs	Agency %	Float Hrs	Float %	Bank Hrs	Bank %	Atypical Staffing
Gove Hospital																
Gove Hospital: medical/paediatrics																
52	52	0	100%	0%	0	0		0	0%	0%	0%	0%	0%	0%	0%	
48	48		100%	0%					0%	0%	0%	0%	0%	0%	0%	
16	16		100%	0%					0%	0%	0%	0%	0%	0%	0%	
116																
Gove Hospital: maternity wd 2																
15	32	0	100%	0%	0	2	No	0	0%	0%	0%	0%	0%	0%	0%	double shift x 1
14	24	0	100%	0%	1				0%	0%	0%	0%	0%	0%	0%	
20	20	0	100%	0%	2				0%	0%	0%	0%	0%	0%	0%	
49																
Tennant Creek Hospital																
Ward 1 Med/Surg/Paeds																
24	24	0	100%	0%				0	0%	0	0%	0	0%	0	0%	
16	16		100%	0%				0	0%	0	0%	0	0%	0	0%	
16	16		100%	0%				0	0%	0	0%	0	0%	0	0%	
0																
Dialysis																
16	8	8	50%	50%	2				0%	0	0%	0	0%	0	0%	
16	16	0	100%	0%	2				0%	0	0%	0	0%	0	0%	
10	10	10	100%	100%	1				0%	10	100%		0%		0%	
42																

