Rostering Guide for Safe Staffing

A Guide for Nurse Managers within the DHHS

Version 1.0

Department of Health and Human Services

Tasmania
Explore the possibilities

Acknowledgements

The *Rostering Guide for Safe Staffing – A Guide for Nurse Managers within the DHHS* is a comprehensive resource designed to support rostering practices.

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The Department of Health and Human Services acknowledges Queensland's *Best Rostering Framework* developed by Queensland Health, senior staff within the DHHS, and the Tasmanian Branch of the Australian Nursing Federation for input into the development of this document.

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1. Introduction

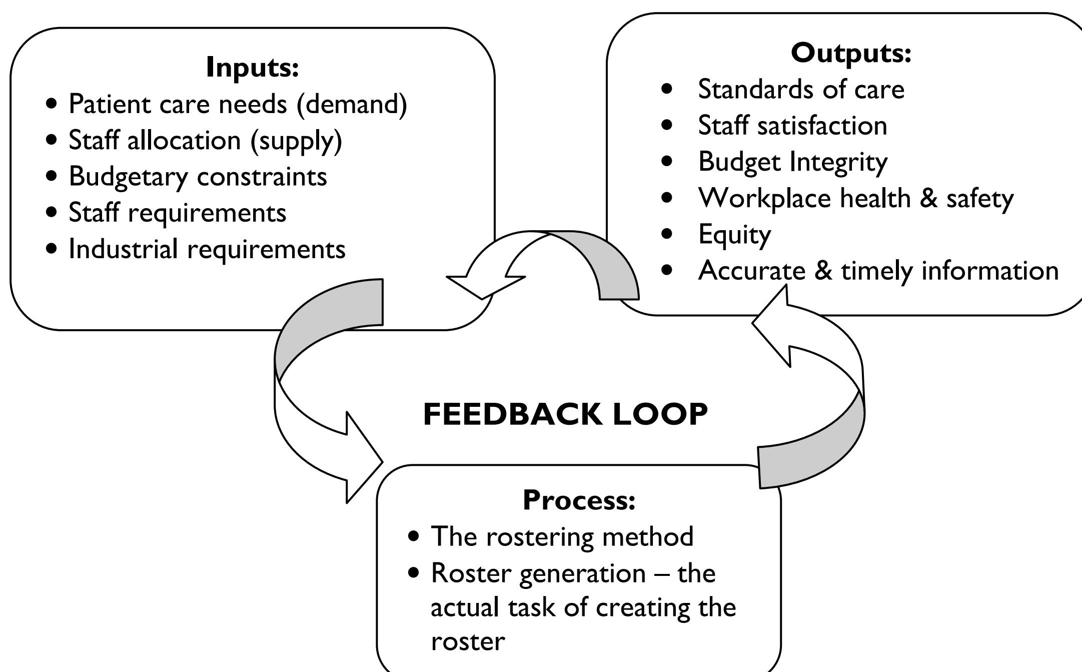
The *Nurse Rostering: A Guide for Nurse Managers within the DHHS,* is part of a suite of resource manuals for the Nurse Manager to assist with effective management of their unit/service within the Department of Health and Human Services (DHHS). 'Nurse Managers' include Nurse Unit Managers (NUM) and senior nurses who are responsible for managing clinical service areas or nurses acting-up in a management role.

A literature search was undertaken to identify the most recent evidenced-based documentation regarding rostering of nursing staff over the last ten (10) years. This highlighted only a small amount of contemporary research regarding evidence based rostering practice. As a result much of the information in this resource manual refers to the seminal work of Bonner, Beaumont, Hogan, Smith & Tattam, (1996) and is complimented by the professional knowledge and experience from senior DHHS nursing staff.

2. Purpose

The *Nurse Rostering: A Guide for Nurse Managers within the DHHS* is designed to provide the Nurse Manager and staff with a comprehensive guide to rostering. Bonner et al (1996) suggests that rostering staff is one of the most complex and important functions performed by the Nurse Manager. Rostering skills affect the delivery of patient care, resource utilisation and employee satisfaction (Silvestro & Silvestro 2000, p 525).

The content within the guide is structured around six (6) principles which can be applied to any nursing practice setting. These principles have been based on the 'systems' approach to rostering described by Bonner et al (1996, p. 15-16). The systems approach involves giving consideration to the inputs, outputs and processes involved with developing an effective roster, and the feedback loop that exists between them.



The DHHS aims to provide a quality experience for the Tasmanian people using public health services by ensuring services provided are of high standard, appropriate, safe, available when and where needed, and coordinated to meet each individual's needs. Processes that focus on delivering high quality patient outcomes are paramount. Effective rostering aims to achieve this by meeting operational objectives, providing a safe working environment and facilitate employee satisfaction. Effective rostering is underpinned by legislative requirements, industrial provisions and strategic/local policies and enhanced through excellent communication, equity and planning skills.

This *Nurse Rostering – A Guide for Nurse Managers within the DHHS* is complemented and used in conjunction with the following resources:

- *Unit Management Resource: A Resource Manual for Nurse Managers*
- *NHPPD 'The Basics'.*
- *NHPPD User Manual*
- *Electronic staffing tool*

3. Rostering Principles

1. Rosters must comply with the relevant Industrial and legislative provisions

2. Rosters must provide safe staffing levels.

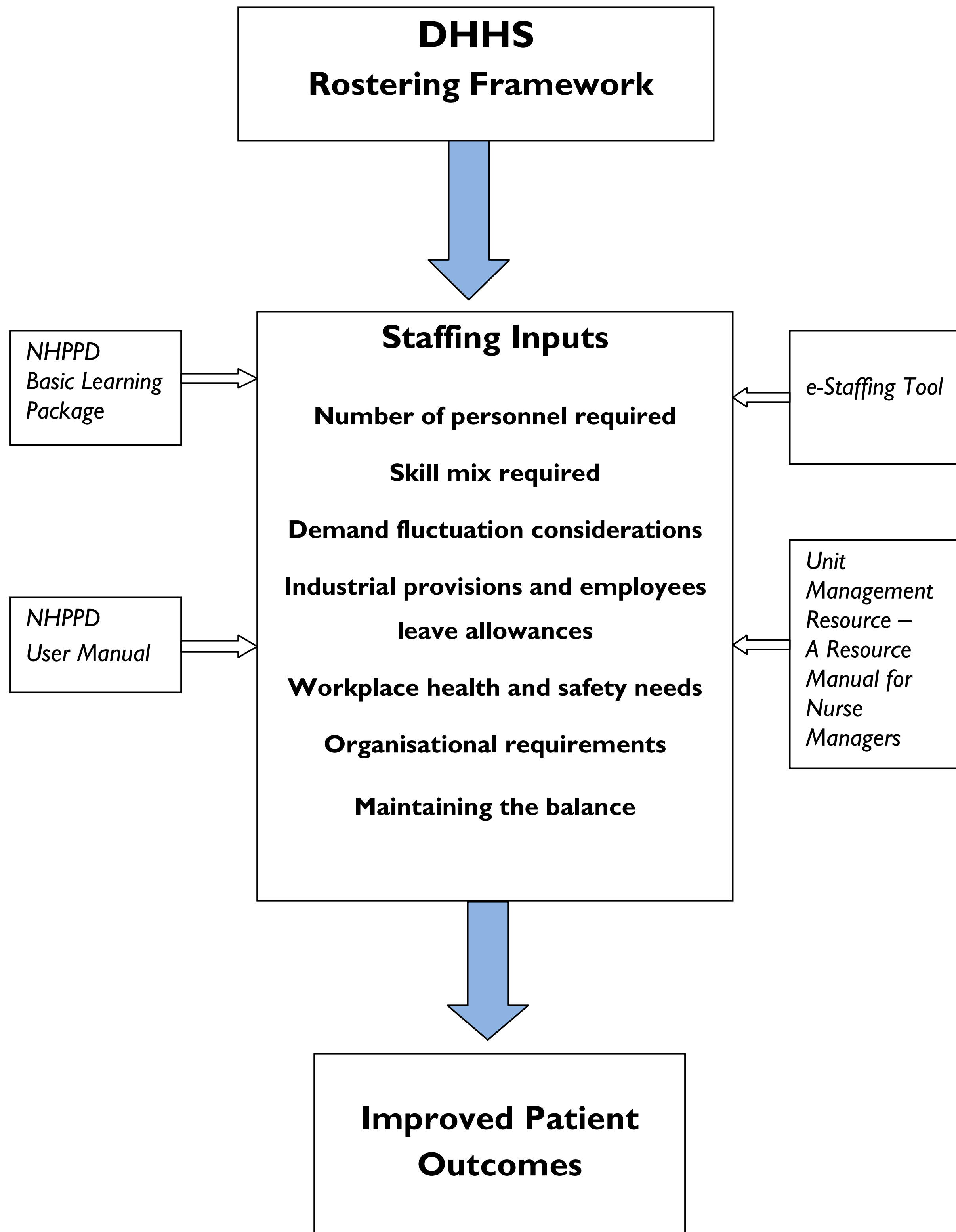
3. Rosters must provide efficient and effective utilisation of staff.

4. Rosters must provide for suitable skill mix of staff.

5. Rosters support work life balance and cover service delivery requirements.

6. The roster should enable employees to be actively involved in the review of equity.

4. DHHS Rostering Framework



Adapted from Queensland Government: Best Practice Framework for Rostering Nursing Personnel (2003)

5. Principle 1 - Rosters must comply with the relevant legislative and industrial provisions

Industrial Awards and Agreements contain a variety of provisions that impact on the rostering process. In some instances these can be a complex maze to interpret. Knowledge of the legislative requirements, industrial provisions, contractual obligations and DHHS Policies and Procedures must be considered during the process of developing a roster. The Nurse Manager is not able to operate, or make decisions that contravene the conditions stipulated in the following Acts, Nurses Award, Agreements and local policies:

5.1 Table 1: Mandatory requirements when rostering

Legislative requirements
Occupational Health and Safety (Workplace Health and Safety ACT 1995 Tasmania)
Workers Compensation (Workers Rehabilitation and Compensation Act 1988 Tasmania)
Long Service Leave Act (State Employee Act 1994)
Long Service Leave Act Amended Act 2003
*State Service Act 2000 (*Tasmania):
• *State Service Principles*
• *The State Service Code of Conduct*
• *Commissioners Direction No. 1* of 2001 - Employment
• *Commissioners Direction No. 3* of 2001 - Workplace Diversity
Award Provisions and Agreements
Nurses (Tasmanian Public Sector) Award 2005
Nurses (Tasmanian Public Sector) Enterprise Agreement 2007
Nurses and Midwives Heads of Agreement 2010 (HoA)
Employment Agreements
Individual employment contracts
DHHS/AHS Policy Requirements (available at http://intra.dhhs.tas.gov.au)
Prevention of Workplace Harassment, Victimisation and Discrimination Policy 2009
Work & Family inc Work and Breast Feeding Guidelines 2007
Shift Swapping Policy 2009
Area Health Service Policies and Guidelines
Nursing Staffing Policy - LGH – 2008

The Nurse Manager is allocated a salary budget and is required to make decisions in relation to their staffing profile according to this budget and other contributing factors, including current and predicted service delivery and workload levels. Although permanent employment is the usual form of employment, there are circumstances where fixed term appointments (including casual) are necessary in order to meet the operational needs of the business. In these circumstances the State Service Act 2000 (Section 37(3)(b) only permits fixed term appointments "for a specified term or for the duration of a specified task" and Commissioner's Direction 1 prescribes the rules to be followed when making such appointments.

(*Guidelines for the Management of fixed term (including casual) employment 2010, Human Resources Services*)

Casual employees should be used as and when required but should not be included on the rostering template or on the official roster. They may be included on the daily staffing allocator.

5.2 Occupational Health and Safety

Within the organisation there is a responsibility to ensure that there are systems and processes in place which meet mandatory safety legislation. Occupational health and safety and minimising the health risks associated with shiftwork must be considered when designing a staffing roster.

The need for 24-hour nursing care requires most nurses to work a variety of shifts at some stage in their career. Bonner et al (1996) suggests that the effects of shiftwork impacts on the health and safety of nurses and their ability to provide optimal patient care. Likewise, a poorly designed roster can lead to over or under staffing of a ward/unit with critical implications for safety and quality of patient care and resource utilisation. The literature indicates that an effective roster design is crucial to staff morale and nurse retention rates. Staff dissatisfaction can lead to a spiralling of costs through increased absenteeism and staff turnover (Silvestro & Silvestro, 2000, p. 526).

5.2.1 Key considerations include:

- **Minimum 8 hour break between shifts**

Think broadly. A ward/unit/service may wish to trial various roster patterns to meet the demands of the service, and may include mutually agreed different shift lengths to accommodate the minimum 8-hour break. The Award and Agreements allow for shifts of varying lengths e.g.: 6, 8, 10 hours that must be mutually agreed by the employer and employee. This must also accommodate the known fluctuations in patient demand. Regardless of shift lengths, frequent late/early shift changeovers should be discouraged in any rostering pattern.

- **Consecutive rostered shifts**

Full-time staff should only be rostered a maximum of eight (8) shifts in any nine (9) consecutive shifts for an optimal roster. Any variation should only be considered and rostered if the staff member has requested this roster profile

- **Days off**

All staff should be rostered two (2) consecutive days off with an early prior to, and late after days off. Deviations from this should only be considered and rostered if the staff member has requested this roster profile.

- **Week-ends**

As a minimum, full-time staff should be rostered off at least one (1) week-end within a 4-week roster. Deviations from this should only be considered and rostered if the staff member has requested this roster profile and is dependent on the staff member's ability to fulfil this obligation. Consideration must be given to ensure equity for penalty shifts for part-time staff (i.e.: week-ends and public holidays).

- **Night duty**

The frequency of rotation to night shift is influenced by each ward/unit's clinical requirements and the number of permanent night duty full time equivalent (FTE) staff. It may be a requirement that all shift working staff rotate to work night duty. The Award states that an employee must be rostered a 13 week break between continuous periods of night duty. With the mutual agreement of employer and employee to ensure safe staffing and work/life balance, staff may choose to rotate onto night duty more frequently at a lesser number of weeks. This has to be a written agreement between the employer and employee.

Regardless of shift patterns, night duty should be shared equally among all staff. Permanent night duty staff should be encouraged to rotate on to day shift for one (1) month period annually. This time should be negotiable between employee and the Nurse Manager and can be completed as two separate two week blocks or a four week block of any combination of shifts. Learning objectives for the rotation should be formulated in consultation with the employee, the Nurse Manager and/or the Clinical Nurse Educator. (Nursing Staffing policy - LGH, 2008)

- **Roster Requests (preferences)**

Every employee is able to request roster preferences. Accommodation of roster preferences needs to comply with legislation and local policy. The need to support a work/life balance for the staff requires a delicate balance with patient care and organisational need. Equitable principles need to be applied to the granting of roster requests and the distribution of all shifts between full time and part time staff across the week.

- **Annual Leave**

The annual leave allocation is determined according to the staffing profile, ensuring that the appropriate FTE are available to provide safe rosters that meet the service demand. The leave factor allocation is calculated on the total nursing FTE required to meet patient care needs *(See NHPPD User Manual and Unit Management: A Resource Manual for Nurse Managers).* This results in a fixed FTE to provide leave relief over the year.

Ensure annual leave entitlements are taken at appropriate intervals throughout the year by mutual agreement and that there is a proper distribution of leave. Most wards/units/services have a leave calendar posted for all staff to view. The leave calendar allows the Nurse Manager to monitor:

- leave requests;
- leave liability;
- compliance with Occupational Health and Safety legislation; and
- encourages staff to take regular leave to ensure a work/life balance.

Nursing staff who wish to request extended periods of leave should negotiate this with the Nurse Manager, to enable equitable access to high demand leave times e.g. Christmas, school holidays and summer. Most clinical areas have local rules/protocols on the number of weeks requested in high leave demand periods.

Most employees are entitled to annual leave after 12 months continuous service according to their employment contracted hours. Employees may be able to take leave prior to completion of 12 months service, subject to approval.

5.3 Table 2: Industrial requirements when rostering

Award Rules	Nurses (Tasmanian Public Sector) Enterprise Agreement 2007 and Nurse and Midwives HoA 2010
Roster period	• 28 days (4 weeks)
Publish date for roster	• At least 28 days before the commencement of a four weekly work cycle
Publish date for accrued days off roster	• At least 28 days before the commencement of a four weekly work cycle
Average hours of work per week; per fortnight	• Average 38 hours; maximum 76 hours
Shift length	• Shift can be modified by mutual agreement to meet the needs of the service and enable nurses to work flexibly and provide a more responsive staffing structure. • The parties have agreed to work together to introduce agreed conditions for 10 and 12 hour shift-working. • The parties have agreed to minimise shift overlap, where clinically appropriate on weekends and public holidays.
Break between shift in hours	• Minimum 8 hours
Maximum rostered work days per 28 day roster cycle	• 19 days
Maximum consecutive days worked	• 8 shifts in 9 consecutive days
Maximum hours a casual employee can work	• 48 hours per week, 88 hours per fortnight, 152 hours in a 4 week roster period
Authorised overtime in excess of rostered ordinary hours (RN and EN): Day workers • Monday – Saturday • Sunday • Public Holiday	• Paid at rate of time and a half for first 2 hours. Double time thereafter. • Paid at rate of double time. • Paid at rate of double time and a half.
Authorised overtime in excess of rostered ordinary hours (RN and EN) • Shift worker	• Paid at double time • If overtime is not an extension of a rostered shift, a minimum of 4 hours is payable on a Sunday at double time. Monday – Saturday is paid at time and a half for 2 hours then double time for 2 hours • Public holidays are paid at a rate of double time and a half.
Banking of Hours	• This is subject to agreement between the employer and employee. • When overtime is worked, banking of hours is an option in lieu of monetary compensation. • The hours (equivalent to the time worked) can be taken at a mutually convenient time.

Rostered hours which incur extra payment (shift penalties) (RNs and ENs)	Shift penalties are relative to actual shifts worked.
• Afternoon shift – Monday to Friday	• Paid at time + 12.5% to 13.75% from 1 July 2011 and to 15% from 1 July 2012. • 12-hour shift – 15% to 16% from 1 July 2011 and to 16.75% from 1 July 2012.
• Night shift	• Paid at time + 25% to 26.25% from 1 July 2011 and to 27.5% from 1 July 2012. • 12-hour shift – 20 to 21% from 1 July 2011 and 21.75% from 1 July 2012. • paid for actual hours worked during the changeover of 'daylight savings'. • Paid for actual hours worked pre and post midnight on Friday, Saturday and Sunday nights from 1 April 2011.
• Saturday	• Paid at time + 50%
• Sunday	• Paid at time + 75%
• Public Holidays	• Nurses rostered on a public holiday are paid a loading of 250% (with no additional days leave). • Where a rostered day off falls on a public holiday, nurses are paid 100% penalty in recognition of the disadvantage of not benefitting from the day off, or accrue 7.6 hours (*pro rata*), paid at ordinary time.
Accrued day off – 38 hour week	• Accrued Day Off (ADO) in each 4 week cycle • Accumulate to a maximum of 5 (12 in special circumstances) • Not to be rostered on public holidays • To be attached to Days Off
Allocation of days off	• Two consecutive days off, except where by mutual agreement alterative agreements are made between the employer and employee.
Short change of shift penalty	• Seven (7) days notice is required to change a staff member's roster with consultation and without penalties being incurred (at overtime rates).
Annual Leave	• May be taken as single days or any combination of days in accordance with the needs of the service and the Leave Management Policy (to be developed). • Shift workers must work 20 weekend shift in any combination in order to accrue the additional five (5) days annual leave.

This principle has reviewed the legislative and award provisions that underpin the development of an effective roster.

6. Principle 2 - Rosters must provide an efficient and effective utilisation of staff

In this section the Nurse Manager is referred to the *Unit Management: A Resource Manual for Nurse Managers)* which explains the relationship of service demand to resource allocation and how nursing hours are used to calculate the number of annual nursing FTE staff required for providing patient care in the unit/service. The rostering framework is a critical link in the aim to achieve a balance between supply of nursing resources and service demands.

The Nursing Hours per Patient Day (NHPPD) model was chosen as the nursing workload model during the Tasmanian Nurses EBA negotiations in 2002 and has continued in subsequent agreements to date. The NHPPD model is used to calculate the number of direct nursing hours required to provide patient care and as a framework to establish a nursing roster (*Refer to NHPPD – 'The Basics'* and *NHPPD User Manual*).

To roster the appropriate number of nursing personnel, it is necessary to be aware of:

- the annual number of budgeted FTE for the unit/service;
- the breakdown of FTE available in the productive and non productive categories for the unit/service; and
- minimum staffing requirements e.g.: within rural clinical areas, two (2) staff are required on duty at all times to ensure patient and staff safety and two (2) staff are required to be present on a ward/unit at all times when on night duty to ensure patient and staff safety.

Productive nursing hours include paid nursing time for direct and indirect nursing hours. Direct hours include nursing hours that deliver direct patient care whereas indirect hours are supportive roles that are not specifically allocated to patient care requirements (i.e.: NUM and CNE). Non-productive hours include any type of paid leave for nurses, including personal leave, annual leave etc. Non-productive leave allocation needs to be considered prior to the roster build process.

The Nurse Manager must know and understand their patient population and service requirements to use available staffing resources to their advantage (Duffield et al 2010). Direct care patient requirements (considering patient acuity) and peaks and troughs that may occur weekly/monthly, inform the demands on the service. This information is derived from the service profile *(See Unit Management A Resource Manual for Nurse Managers, Module 2)* and is informed by reviewing occupancy and turnover trends within the patient data management system. This knowledge will form the basis for the design of the rostering requirements. The following example indicates how this may occur on a surgical ward.

Table 3: Roster reflecting service requirements

Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Admitting pm	Theatre day	Admitting pm	Theatre day		Discharges am	
Consider additional staff in pm	Consider additional staff over all shifts	Consider additional staff in pm	Consider additional staff over all shifts	Consider less staff	Consider additional staff in am	Consider less staff

Combinations of various staffing profiles can be examined by inputting data into the *e-Staffing Tool,* comparing different schedules with combinations of skill mix, varying shift lengths, shift start and finish times and costing implications.

7. Principle 3 - Rosters must provide safe staffing levels.

Rostering is the method by which the nursing hours required to deliver services (supply) are allocated on a daily basis. The activity of rostering staff occurs in an environment of ongoing change. Demand during the 24 hours differs, and therefore the number of nursing hours allocated across the day will need to be tailored to reflect this demand.

The Nursing Hours per Patient Day (NHPPD) is the agreed workload model in the Nurses Agreement. The model guides staffing levels during annual budget setting and provides a framework to create a nursing roster that meets patient demands and ensures safe staffing. The benchmarking process enables the FTE establishment to be calculated.

Rostering should be flexible to meet the specific demands of individual wards/units. Daily demand can be met by allocating different numbers of nurses to each shift, varying the shift commencement and finish times, and using different lengths of shifts (*See Unit Management:: A Resource Manual for Nurse Managers, Module 4*).

7.1 DHHS Rostering System

The components underpinning good rostering practice should not change regardless of how the roster is physically completed. Currently the DHHS has primarily two (2) rostering processes for nurses:

- ProAct rostering tool (soft ware package)
- Spreadsheet templates (electronic or paper based)

The system currently used in the acute hospitals within the DHHS is called ProAct. ProAct is a rostering tool that:

- records staff activities to feed the payroll system;
- monitors key performance indicators; and
- captures evidence of work practices for analysis and benchmarking.

Utilising the codes available in ProAct, the Nurse Manager is able to define the direct and indirect staff employed within their unit. These codes enable reports to be generated that can reflect:

- productive (direct and indirect) hours;
- non productive hours;
- trend data in relation to roster patterns;
- skill mix;
- staff preferences; and
- personal leave etc.

Therefore it is essential that the Nurse Manager ensures that the roster is a true reflection of the work done in their unit/service (refer to *Unit Management: A Resource Manual for Nurse Managers*).

In facilities or health services where ProAct is not currently used, the Nurse Manager is accountable for all aspects of roster construction that provides appropriate staffing to cover demand. Currently the roster is completed using a spreadsheet template. The Nurse Manager is also responsible for maintenance of roster changes to maintain the accuracy of information recorded on the roster in regards to unplanned leave shifts worked, by whom and for what length.

7.2 Roster Requests

Accommodation of roster requests must meet compliance requirements (demand) and are bound by legislation, policy and legal requirements (see Table 1). Additionally, most units/service areas have local rules/protocols on the number of requests allowed.

Remember that responding to everyone's requests is unlikely to produce a 'workable' roster. The use of varying shift lengths and start times to meet patient care and organisational needs (demand) provides scope and flexibility for staff, and may improve the quality of their working life. For example; starting the majority of staff at 0730 may mean you are not necessarily meeting the demands of the service. A staggered start time e.g.: starting some staff at 0830/0900 might better match supply to demand.

Over time, the Nurse Manager will develop an understanding of the roster profiles of staff regarding preferred working patterns. Staff with complex requests may need to negotiate with the Nurse Manager. Equitable principles must be considered when allocating/rejecting roster requests.

7.3 Annual Leave

The annual leave allocation is determined within the Establishment List ensuring that there is the appropriate FTE available to provide safe rosters that meet the service demand. The leave factor allocation is calculated on the total nursing FTE cover required to meet patient care needs *(See NHPPD User Manual and Unit Management: A Resource Manual for Nurse Managers).* This results in a fixed FTE number to provide leave relief over the year.

For example: a ward/unit may have four (4) FTE staff budgeted to cover leave. When approving annual leave (and long service leave) the Nurse Manager must check the leave does not exceed the allocated FTE available for leave. It should also be noted that in the example of four (4) FTE available, this could consist of five (5) to six (6) part time staff being rostered off within the allocated four (4) FTE.

7.4 Local rostering policy to support safe staffing

Local rostering policies can be developed/adapted for individual unit/ward profiles and/or preferences. These serve as a communication tool for unit staff regarding local rostering protocols and promote a safe rostering system. An example of this is The Launceston General Hospital: Nursing Staffing Policy 2008 that clearly communicates how to provide safe staffing and efficient, quality service delivery for the patient.

7.5 Undertaking the roster

This roster consists of all staff currently employed to work within the ward/unit/service including:

- Nurse Unit Manager, (Clinical Nurse Educator, Clinical Nurse Consultant, in some areas);
- Senior Registered Nurses;
- Junior Registered Nurses (including transition to practice nurses);
- Enrolled nurses; and
- Support personnel e.g. hospital aides and ward clerks.

This information is recorded in the Establishment List for each service area. The Establishment List is a record of the classification, status, position title, cost centre, section codes for each position, as well as the status FTE classification and contract dates of the staff members filling those positions. To change any position information in the Establishment List, a Proposal to Vary Establishment (PTVE) form must be completed. Some wards/units have multiple cost centres within the service. The section codes allow multiple cost centres to be attributed to one service.

In some acute hospitals, the Nurse Manager is supported by personnel within facility/health service rostering office. The support personnel in conjunction with the Nurse Manager develop a roster which includes available FTE nursing staff. ProAct uses data from the Establishment List to generate the roster for a ward/unit. The Nurse Manager needs to adjust the roster to meet service demand and skill mix. In units/services where this service is not available the Nurse Manager should seek the assistance of their line manager and or the business support unit for their area.

The process of completing a roster includes, but is not limited by the following process:

- roster cycles directly reflect the pay cycles i.e. two (2) pay fortnights occur in a roster month. (Roster cycles are not related to calendar months);

- allocated FTE positions must be rostered over each fortnight; for example: a nurse employed at 0.84 FTE must be rostered to work 64 hours in each fortnight. i.e.: not 72 hours in one fortnight and 56 hours in another.

- There are exceptions to every rule, occasionally staff are employed at an FTE level that requires them to work odd and even rosters. For example: if a staff member is employed at 0.26 FTE (20hrs/fortnight) - they need to work 3 (8 hour) shifts in one fortnight and 2 (8 hour) shifts in the second fortnight to meet the required FTE hours in a roster month. Different shift lengths may also impact upon the number of hours worked per fortnight.

- Award conditions stipulate that full time staff work 76 hour fortnights. Determination of whether staff work two 76 hour fortnights or two 80 hour fortnights (with an ADO) is according to staffing requirements and staff preferences. All staff who work full time hours (all shifts) have a ADO every four (4) weeks, this means that in one (1) roster in every four (4) there is an ADO rostered. Any variance to this should be by mutual agreement. The ADO for staff working 10 hour night shifts will fall every five (5) weeks.

- The request roster sheet for the next roster period is produced at the same time as the new roster is completed. For example: roster period 3/10/10 to 30/10/10 is the posted roster, and the request roster sheet for the new roster period is 31/10/10 to 27/11/10.

- In some acute hospitals, the roster request sheet needs to be returned to the roster office by the allocated date to enable the rostering clerk to develop a draft roster for the Nurse Manager to edit and complete.

- ensure that all required staff are listed on the roster request sheet at the correct FTE and classification;

- annual leave is allocated at the required number of days and approved (and differentiated from long service leave);

- mandatory study leave is requested e.g. transition nurse mandatory study leave;

- required shifts are noted e.g. night duty; orientation days for new staff and maternity leave;

- preceptorship relationships are considered;

- appropriate skill mix and experience of staff (for example at least one, senior nurse rostered each shift); and

- work/life balance preferences.

Managing the clinical need (demand), staffing requirements (supply) in line with financial resources and staff requests is a delicate balance. Consideration needs to be given to patient care needs, staff requests, skill mix and the financial impact of the rostering of staff. Examples include:

- rostering of at least one senior nurse per shift, rather than loading several senior nurses on shifts that incur high penalties and allowances; or
- allocating too many staff on annual leave and therefore having to ask staff to do extra shifts and utilise pool/casual usage to balance the roster and cover demand.

8. Principle 4 - Rosters must provide for a suitable skill mix of staff.

Matching demand for labour (defined in terms of nursing hours) with an appropriate supply and skill mix of nurses is a critical phase of the rostering process. The University of Technology Sydney, (2008) describes skill mix as '…the combination of different categories of health care workers employed for the provision of care to patients…'. Research conducted nationally and internationally indicates that skill mix has a direct relationship to patient outcomes (Duffield 2010; Kerr & Timony, 2009).

Service staffing profile plans should describe the level and combinations of skilled personnel required to meet the demands of the service. The numbers of nursing staff required at varying times of the day and week are based on the allocated NHPPD. The available skill mix of nursing staff may also influence the model of nursing care delivery used within the ward/unit and visa versa. The Nurse Manager must consider the model of care used, when building the roster.

A number of organisational factors, such as policies and systems of practice will influence the staffing profile for a ward/unit. However, the fundamental basis of a staffing profile plan is patient care needs (demand). Rostering systems must be responsive to changes in demand any time of the day or on any day of the week.

8. 1 Skill Mix

The nursing personnel for each unit/ward can be grouped together according to:

- roles and responsibilities;
- related competencies; and
- knowledge skills and ability.

The roster profile must take into account all variations in demand for nursing hours and match the predicted demand with an appropriate skill mix of nursing staff. The scope of practice, experience/knowledge and skills of the nurses need to be considered in accordance with the *National framework for the development of decision making tools for nursing and midwifery practice (ANMC, 2007)*. Refer to the *Unit Management: A Resource Manual for Nurse Unit Managers, Module 4).*

Skill mix requirements for each period can be determined by trending information available based on retrospective data and current patient activity/acuity levels. The Nurse Manager can then decide the category of nurses needed for that shift. For example: if the unit profile is predominately high complexity and acuity, more registered nurses will be required. Conversely however, if the activity and patient complexity is lower a higher ratio of enrolled nurses could be incorporated into the roster.

An awareness of local/unit based policy is necessary. The *Launceston General Hospital* - Nursing Staffing Policy 2008 states that each shift should have an appropriate skill mix and staffing level. Speciality areas such as the Intensive Care Unit, Department of Emergency Medicine, and the Operating Room Suites are to have (where possible) a senior nurse in-charge on shifts when not covered by the NUM.

9. Principle 5 - Rosters support work life balance and cover service delivery requirements.

Rostering has a significant impact on the personal and professional lives of nurses (Bonner et al 1996; Silvestro & Silvestro 2000). Shiftwork is integral to the health service industry and meeting patient care needs is paramount in any rostering system. The challenge is to develop rostering systems that support work life balance; balancing staff needs and organisational needs within a defined budget. Accommodating a flexible, family friendly work environment is a key consideration when rostering staff. See: *Work & Family inc Work and Breast Feeding Guidelines* (DHHS, 2007) available at Work & Family inc Work and Breast Feeding Guidelines 2007

Different methods of rostering will suit different units at different times. It is the Nurse Manager's responsibility to select a method that best meets patient and organisational needs, while maintaining a high level of staff satisfaction. Regardless of the rostering method chosen, there are a number of factors critical to roster development. These include:

- Demand;
- Equity;
- Staff satisfaction;
- Budgetary considerations;
- Legal and industrial requirements; and
- Workplace health and safety requirements (Bonner at al, 1996).

Silvestro & Silvestro (2000 p. 525) state the following in regards to rostering approaches:

> …the choice of rostering approach for a ward should be determined on the basis of four contingent variables, namely ward size, demand variability, demand predictability and complexity of skill mix.

They discuss the difficulty and complexity of the rostering process. In large wards with many staff, having one Nurse Manager who plans and organises the roster can be appropriate and effective, however relies heavily on the Nurse Manager's leadership and experience. In smaller wards with less complexity participative rostering methods such as self rostering or request based rostering can be effective and empower staff however the roster tends to be underpinned by staff priorities rather than service demand and patient care needs.

9.1 Key Considerations

The rostering method selected should support both service delivery and staff needs. To find a balance, consider

- staff participation and collaboration in selecting the appropriate rostering method. If staff participate in the decision making process, they will have a better understanding of service requirements and be more likely to support the chosen rostering method;

- once the rostering method has been selected, set local ward/unit roster guidelines or use Area Health Service guidelines if available (for example: *Nursing Staffing Policy: LGH 2008*);
- providing education sessions for staff regarding the rostering method chosen and processes required to ensure an effective roster that meets demand and staff requirements;
- providing information for new staff during the orientation period that clearly communicates the rostering guidelines within the service; and
- discussing concerns, or management of conflicting rostering demands with Human Resources who will advise you of industrial provisions and/or policies as required.

Equity in rostering is vital in achieving staff satisfaction. Bonner et al (1996) argue that if inequality occurs it can have a serious impact on staff morale, which will in turn impact on teamwork and the ability to deliver high standards of care. These issues will ultimately impact on the organisation's ability to recruit and retain valuable nursing personnel.

9.2 Rostering Methods

An understanding of the various rostering methods and associated strengths and limitations is necessary when considering the roster method to be used within the ward/unit. The various rostering methods and their strengths and limitations are outlined below.

9.2.1 Fixed rotating rosters Fixed rostering (or cyclical) rosters have a set pattern, constantly repeated over a predetermined period	
Strengths	**Limitations**
• Prepared using demand as the basis of the required shift • Provides every person on the roster with an equal share of shifts • Offers both management and staff a degree of simplicity and a high degree of predictability • Promotes teamwork and helps to establish stable work groups • Staff are able to plan activities around their working life • Can provide a workable roster with best shift combinations	• Can be rigid and inflexible

9.2.2 Request-based rostering Requests for particular work hours are gathered from staff, usually on a blank roster template. The Nurse Manager responsible for the roster will allocate any vacant shifts that have not been requested by staff. Local policies and practices may limit the number of requests.	
Strengths	**Limitations**
• Allows for staff input into the rostering process • May accommodate staff preferences	• Creates a large degree of uncertainty • Creates a culture of staff requesting particular shifts or even full rosters, which can disadvantage others • "first in" principle can disadvantage certain staff • Refusing requests to meet service needs may be necessary • Can be complex and onerous task for the Nurse Manager who is required to constantly negotiate changes to requested shifts • In many instances rosters are built around requests which creates an imbalance between demand and supply

9.2.3 Self-rostering Involves the preparation of a roster, which has identified within it any pre-planned leave and all vacant shifts. Staff may choose their roster in a spirit of mutual cooperation and negotiation. The Nurse Manager will advise staff when this must be completed, and on completion will check this to ensure that shift coverage meets all the required guidelines.	
Strengths	**Limitations**
• Provides the opportunity for staff to have input into the rostering process. • Can improve shift cooperation and coordination • All staff must be equal participants • Decreases the time the manager spends on rostering. The manager's role is to provide rostering guidelines and monitor these • Can improve staff retention and recruitment • Decreases absenteeism	• Some staff put personal desires ahead of the unit's need • Competing interests among staff often leads to disputes and disenchantment and/or required shifts are not filled • Inequitable distribution of desirable shifts among staff • Powerful personalities tend to manipulate the process in their favour, which leads to some staff being treated unfairly and given 'unworkable' rosters (split days off, extended night duty) • Large amount of non-productive time may be required ensuring the roster meets demands of the ward/unit • Many self-rostering units are unable to achieve a 'true' self-rostering and adopt a request-based system • "first in" principle can disadvantage certain staff

9.2.4 Demand based rostering Focuses on placing the correct number and mix of staff to meet predetermined staffing requirements. The Nurse Manager is responsible for rosters that provide maximum cost effectiveness while meeting patient needs, and maintaining a high degree of staff satisfaction.	
Strengths	**Limitations**
• Ensures the correct staffing skills mix is available to provide safe, cost effective, high standard of care • Can allow for staff preferences/ requests into the rostering process whilst meeting organisational objectives.	• Shifts allocated randomly

9.2.5 Supply driven Rostering The roster is built around available staff, with scant regard for the actual requirements, workload and skill mix	
Strengths	**Limitations**
• Staff are able to choose when they will and will not work • Useful in allocating students	• Does not meet patient care requirements or organisational requirements,

Adapted from Queensland Government, Rostering Framework. Best practice framework for rostering nursing personnel (2003)

10. Principle 6 - The roster should enable employees to be actively involved in the assessment and review of equity.

Rosters are simply tools which should match the available nursing resources to patient care and organisational requirements. The outcomes or products of the rostering processes impact on an organisations ability to achieve its objectives.

Rosters are legal documents that identify the staff allocated to a particular ward/unit or unit on a given day for a specific shift. Rosters can be used in courts of law or coroners hearings to identify accountability for patient care.

Central to the activity of rostering is the responsibility to monitor and review rostering processes, and report exceptions to the norm. A poorly designed roster can lead to over or under staffing of a ward/unit/service with direct correlation to quality patient care and poor resource utilisation. Rosters should be evaluated regularly using an audit document that reflects the principles in this document (see table 4).

10.1 Staff Allocator Assignment Sheets

Acute hospitals that use ProAct to maintain the accuracy of the roster are able to print daily or weekly staff allocator assignment sheets from the rostering system. The allocators reflect the staff working on each shift; their classification and shift length.

The allocators should reflect the following:

- All worked shifts, by whom and for how long;
- In-charge staff member;
- On-call and call-back information;
- Preceptoring information;
- Leave information not already recorded on the roster eg: personal leave, unplanned annual leave, compassionate leave, workers compensation etc;
- TOIL accrued and taken;
- Hours worked by staff on a return to work programme;
- Staff changes with the reason for the change eg: shift change, short notice change of shift;
- Number of beds open, occupancy, attendance numbers if required;
- Other unit specific information as discussed with the Roster Office;
- Any information that will affect how the employee is paid.

The allocators are usually returned to the roster office daily or weekly for those areas with weekly assignment sheets. This information may also allow the Nurse Manager to update the ward roster and assist with accuracy of timesheets.

10.2 Table 4: Suggested Auditing Processes

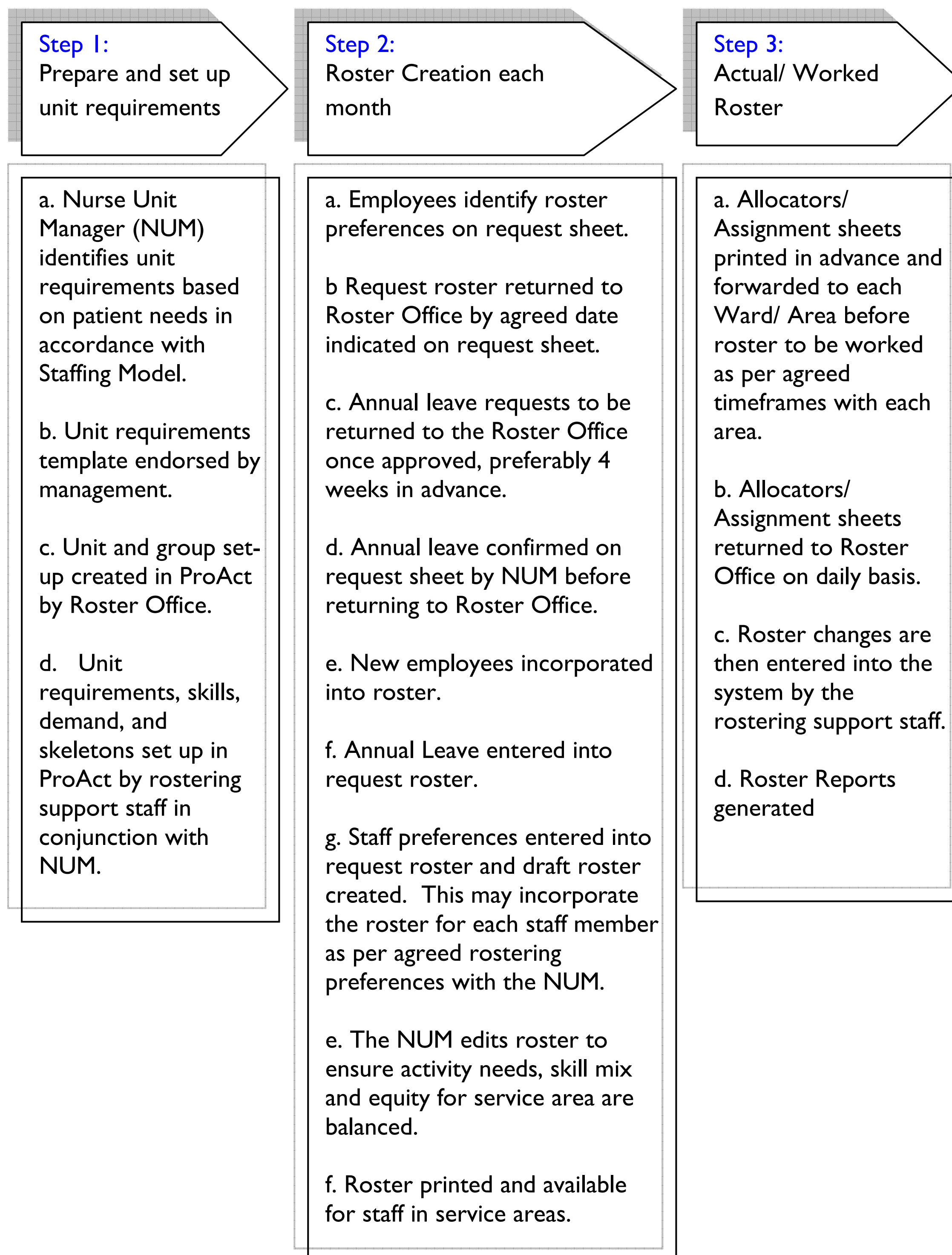
Type of Audit	Evidence
Personal leave audits	• Highlighting when staff are rostered differently to requests.
Roster meets patient care demands	• Rostered shifts (supply) does not meet demand for care requirements • Rostered shifts (supply) are in excess to the patient activity (demand)
Skill Mix	• Senior nurse balance on each shift • Senior/junior nursing skill mix • Number of Transition to Practice nurses per shift • Registered nurse / enrolled nurse skill mix
Rostering within the industrial provisions	• Number of days rostered in a row • Number of shifts per fortnights, • Number of rostered days off in a row,
Poor rostering practices	• Work/life imbalance • No fairness and inequity of penalty shifts including the number of weekend shifts.

11. Summary

An effective ward/unit roster should be able to demonstrate that it meets specific criteria:

- The roster meets all industrial and legislative requirements;
- The roster minimises the health and safety risk associated with shiftwork;
- The roster accounts/ accommodates patient and organisational requirements;
- The roster allocates nursing personnel according to known (or predicted) fluctuations in demand;
- The roster provides for an appropriate skill mix of nurses to meet anticipated clinical requirements;
- The roster provides a balance between patient care, employer and organisational need; and
- The roster maintains equity for all staff.

12. DHHS Rostering Process for ProAct Users



Adapted from Hunter NSW: Balanced Rostering Guidelines

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