Business Planning Framework:

a tool for nursing and midwifery workload management

5th Edition 2016

Queensland Government

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Contents

Overview

The *Business Planning Framework: a tool for nursing and midwifery workload management* (BPF) provides nurses and midwives with a process to assist in determining appropriate nursing and midwifery staff and skill mix levels to meet service requirements and evaluate the performance of the nursing and midwifery services.

This approach to nursing and midwifery workload management focuses on achieving a balance between service demand and the supply of nursing or midwifery resources necessary to meet identified demand, to achieve the delivery of safe, high quality services.

The BPF is the process for Hospital and Health Services (HHS) to manage nursing and midwifery workload supply and demand, including how a service:

- calculates its nursing and midwifery human resource requirements

- develops and implements strategies to manage nursing and midwifery resource supply and demand

- evaluates the performance of its nursing and midwifery resources

- reports workloads and escalate variances/issues /discrepancies

The BPF was originally published in 2001 and is periodically reviewed and updated in consultation with key stakeholders. The current BPF edition was developed collaboratively by the Department of Health, Hospital and Health Services and the Queensland Nurses' Union.

The BPF should be read in conjunction with industrial instruments covering nurses and midwives employed within Queensland Health and as amended from time to time.

The BPF is an industrially mandated tool designed to support business planning for the purpose of managing nursing and midwifery resources and workload management in public sector health facilities.

In May 2016, an amendment was made to the *Hospital and Health Boards Act 2011* to establish the legislative framework for prescribed facilities to comply with nurse and midwife to patient ratios. In addition to requiring prescribed facilities to comply with the ratios, the amendment requires those facilities to comply with workload provisions, as a means of ensuring safe staffing levels. To achieve this, section 138E of the *Hospital and Health Boards Act 2011* enables the Director-General of the Department of Health to make a standard that outlines requirements about nursing and midwifery workload management of a service. The *Nursing and Midwifery Workload Management Standard* is based on the BPF.

Principles of the Business Planning Framework

The Business Planning Framework (BPF) is underpinned by three principles:

1. Safe and high quality **patient** care.
2. Support and resourcing for **staff** to provide safe and high quality care.
3. Delivery of a safe, affordable, sustainable and continually improving **health service**.

PRINCIPLE 1:
The patient
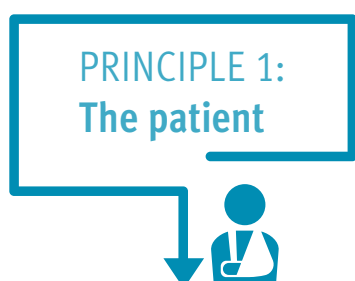
The BPF embraces patient-focused care by providing a framework that supports the delivery of safe and high quality nursing and midwifery services by:

- Applying evidence-based models of clinical care and clinical practice to ensure optimal health outcomes for patients
- Meeting agreed performance outcomes to deliver safe, equitable and high quality health services that maintain dignity and patient empowerment
- Promoting the strategic objectives in Queensland Health's strategic plan, underpinning delivery of safe, high quality health care and continuous improvement.

PRINCIPLE 2:
The staff
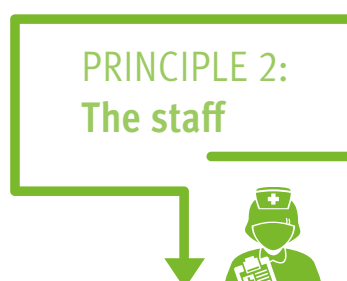
The BPF supports nurses and midwives to plan, manage and evaluate the safety and quality of nursing and midwifery services through effectively managing resources by:

- Aligning nursing and midwifery numbers and skill mix with service demand to effectively deliver safe workloads
- Integrating evidence-based practice with workforce planning strategies to deliver flexible nursing and midwifery services that allow responsiveness to changes in service demand
- Embedding systems for managing safe, equitable workloads for nurses and midwives.

PRINCIPLE 3:
The organisation
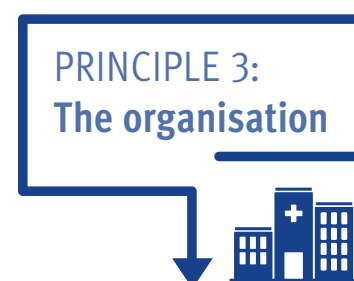
The BPF supports nurses and midwives to effectively and efficiently manage nursing and midwifery resources to deliver a safe, affordable, sustainable and continually improving health service by:

- Supporting the organisation in maximising patient outcomes and patient experience
- Ensuring nursing and midwifery resource allocation aligns with safe patient outcomes
- Building a culture with high levels of consultation, engagement and performance in nursing and midwifery services.

The principles of the BPF apply to all rural, remote, regional and metropolitan settings where nurses and midwives are employed by Queensland Health, including for example, inpatient, community and corrective services.

Purpose of the BPF

The BPF is the mandated workload management tool for nurses and midwives in Queensland Health. Furthermore, this document is a reference and education resource to assist nurses and midwives with the process of determining nursing and midwifery human resource requirements (supply) in the context of the demands placed on the service (demand).

The aim of the BPF is to provide a framework to assist nurses and midwives to undertake business planning and develop workload management strategies for their services.

The BPF guides the user to analyse a nursing/midwifery service, determine the nursing or midwifery workloads based on service demand and to evaluate the performance of the nursing or midwifery service.

The outcome of the BPF process is the development of a business plan that enables the effective management of nursing and midwifery resources and workloads in a service. The BPF can be used to inform a health service's operational plan.

Business planning and or review is undertaken annually in alignment with the financial year. A review of the business plan will also be required if changes occur relating to key factors such as patient acuity, patient activity, service delivery or nursing/midwifery resource supply. The BPF has been designed to address business planning needs for nurses and midwives, however it also has the potential to be used as an effective resource by other professional groups.

To ensure the BPF can be implemented from the start of the financial year, the following timeframes are recommended:

- November – begin collecting data including the results of the evaluation of the previous service business plan and any trends evident in the current service profile.
- January – commence reviewing service profile with nursing and midwifery staff.
- March – complete service profile and allocate nursing and midwifery resources.
- April – BPF negotiation and sign-off.

The BPF process comprises three modules (stages):

- Module 1: Development of a service profile.
- Module 2: Resource allocation.
- Module 3: Evaluation of performance.

The BPF is underpinned by an iterative process depicted in the diagram below:

01 Develop Service Profile (Demand)

02 Resource Allocation (Supply)

03 Evaluate Performance

BPF
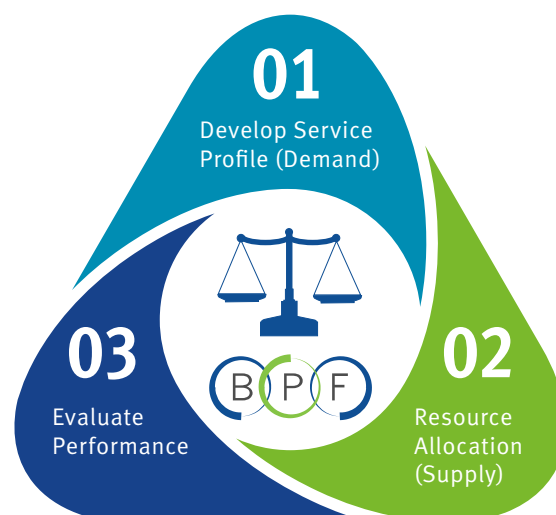
Governance and Negotiation processes of the BPF

To ensure the effective and efficient management of nursing and midwifery resources, safe workloads and the provision of quality health care, the BPF is reliant on a governance process that promotes accountability, consultation, collaboration and transparent decision-making.

The roles and accountabilities for governance of the BPF are depicted in Figure 1.

To be compliant with the BPF and relevant industrial instruments and the *Nursing and Midwifery Workload Management Standard*, services must meet the following minimum requirements:

- Service profiles are agreed and tabled at the HHS Nursing and Midwifery Consultative Forum annually.

- A locally agreed negotiation process exists to facilitate organisational agreement on the service profile.

- There is an agreed and approved service profile completed/reviewed at least annually, which is available for all nursing and midwifery staff to view.

- Notional ratios are defined, and agreed low priority activity lists are developed and displayed by individual nursing and/or midwifery services.

- Each HHS will report nursing and midwifery workload management performance in accordance with the framework as endorsed by the Nursing and Midwifery Implementation Group (NaMIG) and approved by the Director-General, Queensland Health.

- All performance reporting frameworks must be evidence based, align with national clinical and safety standards for health services, and be documented within HHS service agreements.

| **Service profile development** | • Consultation with nurses and midwives from the clinical service and other relevant key stakeholders.
• Assessment, planning and preparation of the service profile by the Nurse/Midwifery Unit Manager or equivalent accountable officer. |

| **Service profile budget workup** | • Nurse/Midwifery Unit Manager or equivalent accountable officer reviews the proposed service profile and budget with the Business Manager or equivalent accountable officer. |

| **Service profile negotiations** | • Nurse/Midwifery Unit Manager and Business Manager or equivalent accountable officers seek endorsement of the proposed service profile with Nursing/Midwifery Director and Executive Director or equivalent accountable officers.
• Nursing/Midwifery Director and Executive Director or equivalent accountable officer provides endorsement or commences service area negotiations with Nurse/Midwifery Unit Manager and Business Manager until endorsement is reached. |

| **Service profile agreement** | • Nursing/Midwifery Director and the Executive Director or equivalent accountable officers seek approval for an agreed service profile with the Executive Director of Nursing and Midwifery and the Chief Finance Officer or delegated accountable officer.
• Executive Director of Nursing and Midwifery and the Chief Finance Officer or delegated accountable officers provide approval for agreed service profile or commence service area negotiations with Nursing/Midwifery Director and the Executive Director or equivalent accountable officers. This will be undertaken in consultation with Nurse/Midwifery Unit Manager and Business Manager or equivalent accountable officers until agreement is reached. |

| **Service profile evaluation** | • Nursing/Midwifery Unit Manager or equivalent accountable officer monitors and evaluates the performance outcomes in relation to nursing and midwifery resource management and assists in the resolution and mitigation of issues to ensure clinical safety and quality standards are achieved.
• The Nursing and Midwifery Consultative Forums monitor and evaluate the performance outcomes in relation to nursing and midwifery workload management and assist in the resolution and mitigation of issues to ensure clinical safety and quality standards are achieved. |

Figure 1: Governance functions and roles

Module 1:
Development of a service profile

1.1 Introduction

This module relates to the first stage of the Business Planning Framework: Development of a service profile.

Service profiling is the systematic process for analysing services to determine the supply of nursing and midwifery resources required to meet service demand. Service profiles are reviewed at least annually to align with budget planning cycles, and also when there is a change in service demand that impacts on nursing/midwifery staffing levels and skill mix. Reviews must be in consultation with rostered nurses and midwives within the service.

1.2 Purpose

The purpose of the service profile is to provide a framework for nurses and midwives to determine, discuss and negotiate the nursing and midwifery resources required to adequately meet service demand. This will ensure the effective and efficient management of resources, workloads and the provision of high quality health care.

1.3 Objectives

- Develop a service profile that identifies nursing/midwifery resource requirements to align with planned service demand and organisational strategic direction.

- Finalise an agreed service profile that reflects the negotiated and agreed annual operating budget and activity level for the financial year.

1.4 Requirements

Service profiles are developed and/or reviewed at least annually to align with budget planning cycles. Service profiles are also developed or reviewed when there is a change in service demand and/or resource supply that impacts on nursing and midwifery full-time equivalent requirements. Reviews must be in consultation with rostered nurses and midwives within the service.

Service profiles must include:

a) Service aim.
b) Service objectives.
c) Service description.
d) Internal environmental analysis.
e) External environmental analysis.
f) Strengths, weaknesses, opportunities and threats (SWOT) analysis (see page 26).

Service profiles must be negotiated between line managers, finance managers and relevant HHS executives to achieve balance between supply of nursing and midwifery resources and service activity demand required to deliver the agreed service. This will be prior to the service profile being agreed and signed off by the senior nursing and midwifery officer and the chief finance officer.

1.5 Compliance measures

There is an agreed and approved service profile completed at least annually that is available for all nursing/midwifery staff to view.

An agreed and approved service profile for each clinical unit where nurses and midwives are rostered is tabled annually to the HHS Nursing and Midwifery Consultative Forum.

Module 2:
Resource allocation

2.1 Introduction

This module relates to the second stage of the Business Planning Framework (BPF): Resource allocation.

Resource allocation outlines the process of planning the nursing and midwifery resources to meet planned demand determined in line with the service profile.

This stage requires the calculation of the nursing and midwifery hours needed to provide safe patient care and converts those hours into dollars. Quantitative methods, in tandem with professional judgement, knowledge and experience, are used to prioritise the allocation of nursing and midwifery resources as agreed in the service profile.

2.2 Purpose

The purpose of nursing and midwifery resource allocation is to achieve a balance between service demand and supply as per the agreed service profile to ensure the effective and efficient management of resources, workloads and the provision of high quality health care.

2.3 Objectives

- To calculate the nursing and midwifery staffing levels and skill mix required to meet the planned demand that is articulated in the service profile.

- To apply professional judgement to determine safe staffing levels.

2.4 Requirements

Professional judgement is accepted as a valid method for identifying a definitive safe staffing level of nurses and midwives.

The total nursing and midwifery resources required to meet the approved service requirements must be determined and validated by completing the following:

- Service analysis and profile.

- Analysis of historical nursing and midwifery hours per unit of activity and sufficiency in meeting service demand.

- Analysis of trends in patient acuity data.

- Forecast level of activity.

- Comparative analysis with similar services.

- Consultation with staff delivering services.

In order to establish the total nursing and midwifery operating resource requirements:

1. Calculate total productive nursing/midwifery hours with a breakdown of direct and indirect hours (for example annually) required to deliver service.
2. Determine skill mix/category of nursing/midwifery hours.
3. Convert productive nursing/midwifery hours into full-time equivalents.
4. Calculate non-productive nursing/midwifery hours in accordance with nursing and midwifery award entitlements.
5. Convert non-productive nursing/midwifery hours into full-time equivalents.
6. Add productive and non-productive full-time equivalents together and convert into financial resources in partnership with business team.

7. Allocate nursing/midwifery hours to meet service requirements.

Some nursing and midwifery services may operate on minimum safe staffing rather than average hours per activity due to factors including but not limited to:

• Geographical location.

• Safe staffing standards.

• Occupancy.

In accordance with relevant industrial instrument requirements, a maximum number of available beds per ward will be calculated by reference to the rostered productive nursing and/or midwifery hours available for the ward on any particular day.

The bed availability will be defined at the ward level consistent with the productive nursing and/or midwifery hours available. This occurs in the context of the facility's integrated bed management arrangements.

2.5 Compliance

An individual agreed service profile is completed and nursing and/or midwifery service requirements are agreed that match the identified demand.

The skill mix baseline is documented in the service profile and includes the point in time that the baseline is measured and a review date, with plans for improvement as necessary. The point in time will be 1 July 2016 or when there is a new service or an agreed service change.

Notional ratios are defined, and agreed low priority activity lists are developed and displayed by individual nursing and/or midwifery services.

Module 3:
Evaluation of performance

3.1 Introduction

This module is related to the third stage of the Business Planning Framework (BPF): Evaluation of performance.

Measuring performance is the means of evaluating the overall effectiveness, efficiency and outcomes of the allocation of nursing and midwifery resources. It involves the evaluation of the service's safety, quality and financial performance in relation to the resources allocated as determined by the agreed service profile.

Measuring performance increases the likelihood of agreed plans being followed and of variations being identified and addressed in a timely manner.

3.2 Purpose

The purpose of evaluating performance is to measure and monitor the effective and efficient management of nursing and/or midwifery resources to maintain safe workloads for the delivery of safe and high quality services. Evaluation highlights where changes to the business and operational plans may be required.

3.3 Objectives

Evaluate the service's performance against key performance indicators as outlined in the agreed service profile to determine:

- Effectiveness and efficiency of the allocation of nursing and midwifery resources.

- Whether the balance between nursing and midwifery resource allocation and service demand was achieved.

- The service safety, quality and financial performance including any change to the service profile that maybe required.

- The effectiveness of workload management strategies to resolve, mitigate risk to patient safety and/or prevent re-occurrence of the identified workload concern.

3.4 Requirements

The HHS will develop governance and reporting frameworks to support the evaluation of nursing and/or midwifery workload management, including:

a) Establishing a HHS BPF Steering Committee to review and respond to nursing and midwifery resource management issues.

b) Establishing a HHS Nursing and Midwifery Consultative Forum and subset forums depending on size and geographical considerations to review and respond to nursing and/or midwifery workload management issues.

c) Using a standardised performance scorecard, monitored by the Department of Health, to analyse service performance, including staffing and skill mix levels and quality outcomes relevant to the nursing and/or midwifery service.

d) Monitoring nursing and/or midwifery resource allocation against established Queensland Health performance indicators and benchmarking as required.

3.5 Compliance

Each HHS will report nursing and midwifery workload management performance in accordance with the framework as endorsed by the Nursing and Midwifery Implementation Group and approved by the Director-General, Queensland Health.

All performance reporting frameworks must be evidence based, align with national clinical and safety standards for health services, and documented within HHS service agreements.

Outcomes from the HHS Nursing and Midwifery Consultative Forum and subset forums will be made available to nursing and midwifery staff.

Guide to completing a service profile

This guide should be used in conjunction with Module 1: Develop service profile of the Business Planning Framework: a tool for nursing and midwifery workload management 5th edition.

Guiding questions and practical examples are provided to assist in customising the BPF to a particular service.

Developing a service profile is a process for examining a service and the environment in which it operates to supply nursing and midwifery resources to meet demand. The service profile describes the role and function of the service by:

- Stating the aim of the service.

- Defining the objectives of the service.

- Systematically analysing the internal and external environment.

- Completing a strengths, weaknesses, opportunities and threats (SWOT) analysis.

1.1 Identifying the aim

When developing a service profile, it is important to identify the aim of the service in relation to the directions outlined within the Hospital and Health Services (HHS) strategic plan and/or Service Agreement (SA).

The aim of the service must be a succinct, broad sentence, describing how the service contributes to achieving the strategic directions of the HHS and meeting the required outcomes of the SA.

> **Example**
>
> To deliver safe and responsive mental health inpatient care to adults through the provision of tertiary (Level 6) services that are sustainable, effective and efficient to achieve health promotion, illness prevention and early intervention.

1.2 Developing objectives

Objectives are statements indicating the key outputs/measures a service is aiming to achieve, and provide the framework for assessing performance. They should align with the goals outlined in the HHS strategic plan and meet the desired outcomes of the SA. When developing service objectives, it is important to also reflect on any new activities or programs that need to be included in the service, while considering the impact of past achievements and non-achievements.

To assist in developing objectives a framework such as the SMART criteria should be applied:

- **S**pecific – what does the service need to achieve?
- **M**easureable – how can/will these objectives be measured?
- **A**ction orientated – what are the steps to be taken and by whom to achieve service objectives?
- **R**ealistic – can the service actually achieve the objectives?
- **T**imely – what are the timeframes for achieving the service objectives?

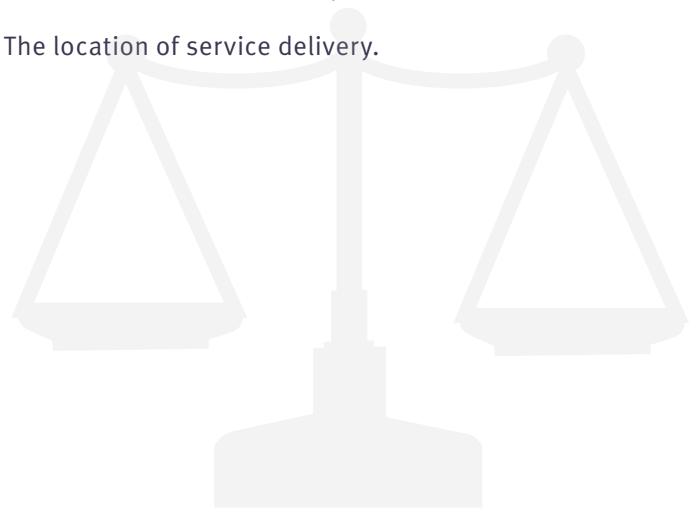## 1.3 Describing the present service

This section broadly describes a service, or a planned service, and considerations include:

- The type of current/planned service.
- The function of the current/planned service.
- The location of service delivery.

1.4 Environmental analysis

There are numerous internal and external environmental factors that affect the role and functions of a service. Accordingly, it is important to identify the impact, or potential impact, of these factors on nursing and midwifery workloads by conducting an internal and external analysis of the service environment.

Generally speaking, environmental factors fall under the following categories:

Internal environmental factors

- Structural:
  » Physical structure.
  » Access to health services.
  » Service delivery structure.
  » Model/s of care.
  » Nursing and midwifery structure.
- Human resource management:
  » Leadership and management.
  » Organisational culture.
  » Core staff profile.
  » Professional development, training and education.
  » Patient safety and quality care.
- Information technology and management:
  » information technology systems.
  » information management.
- Performance:
  » Patient dependency/complexity.
  » Patient activity.
  » Service safety and quality.
  » Financial outcomes.

External environmental factors

- Policy/legal
- Economic
- Social
- Technological
- Research/evidence-based practice

1.4.1 Internal environmental analysis

Internal environmental factors are those that a service can potentially influence. The following internal environmental factors are provided as a guide:

- **Physical structure** (location, size and physical design) – describes the physical environment in which the service exists.

Question to answer

» What are the structural factors that affect nursing/midwifery resources in the service?

Examples

» The size and locality of a service can affect access to community and outreach services, which may impact discharge processes and the need for additional community nursing/midwifery services.

» The number of single rooms within an inpatient service can affect the capacity to provide adequate nursing/midwifery surveillance, which may increase the need for additional nursing/midwifery hours.

- **Access to health services** – describe the health services accessible to your local service and their level of capability as determined by the Clinical Services Capability Framework (CSCF).

Question to answer

» How does the accessibility and capability of local services impact on the nursing/midwifery resources within the service?

Examples

» The CSCF level for maternity services will determine the transfer protocols for mother and baby requiring specific levels of specialised care, which may impact the midwifery resources of the service transferring and the service receiving the mother and baby.

» Rural services may have limited access or no access to domiciliary nursing/midwifery care, which can impact how nursing/midwifery resources are allocated and potentially funded in the local service.

- **Service delivery structure** – describe the structure of the local service and the teams involved in service delivery.

Questions to answer

» What is the structure of the service?
» What teams are involved in service delivery?
» What are the roles, responsibilities and accountabilities of team members?
» What are the reporting relationships of team members?
» What is the CSCF level of the service?

Examples

» When developing a service profile for integrated mental health services, consideration is given to the service span across community and inpatient settings and the coordination of the multidisciplinary team.

» When developing service profiles for community health services, consideration is given to the models of care based on a collaborative team structure and links with government and non-government organisations.

- **Model/s of care** – broadly defines the way health services are delivered at the local level.

Questions to answer

» What is/are the model/s of care applied in the service?

» Do the current model/s of care deliver the desired health outcomes for the local community?

» Do the existing structures support the model/s of care in terms of economic effectiveness?

» What is the evidence that supports the current model/s of care?

Examples

» Plans to expand the Hospital in the Home (HiTH) service within a HHS would increase patient turnover and the requirements for nursing/midwifery resources.

» If a new model of outpatient rehabilitation was trialed in an organisation, this could expand the scope of the multidisciplinary team and impact the roles and requirements for nurses within a service.

- **Nursing and midwifery structure** - describe the roles, functions and accountabilities of nurses/midwives in the service.

Questions to answer

» What are the numbers, roles and functions of nursing/midwifery staff in the service?

» What are the accountabilities of nursing/midwifery staff in the service?

» What impact does the nursing/midwifery structure have on the direct and indirect workloads of nurses and midwives in the service?

» How does the nursing and midwifery structure interact with the models of care or service delivery?

Example

» Describe or replicate the organisational structure for nursing/midwifery services.

Human Resource Management

- **Leadership and management** – describe the governance structure and accountability framework for the organisation.

Questions to answer

» What is the governance structure of the organisation?

» Who are the accountable officers for service delivery?

» What are the roles and responsibilities of these accountable officers?

» How are the accountable officers supported in the governance process?

Example

» Refer to HHS/facility/service line's strategic/operational plans for the organisational structure.

- **Organisational culture** – describe the way staff relate to each other and their level of engagement and participation in organisational processes.

Questions to answer

» Is there a culture of staff inclusion and workplace diversity that is embraced and fostered in the service?

» Are nursing/midwifery staff supported to work to their full scope of practice and are they appropriately resourced to deliver safe, high quality patient care?

» Are there opportunities for nursing/midwifery staff to realise their potential and contribute to patient/service outcomes?

» Are there recruitment and retention strategies in place to underpin the development and sustainability of the nursing/midwifery service?

Examples

» Nursing and midwifery representatives from the service participate in organisational committees.

» A mentorship program within the service is available for all nurses or midwives.

- **Core staff profile** – describe the primary roles and responsibilities of staff directly and indirectly employed to work in the service.

Questions to answer

» What are the categories, numbers and roles of the core staff working in the service?

» What are the functions of the core nursing/midwifery, medical, allied health, administration, unregulated health workers and operational staff?

» What is the current scope of practice for registered health practitioners and does this meet the requirements of the service?

» Can clinical staff access opportunities to realise their potential and contribute to service development and organisational outcomes?

» How many staff are practising at the following levels and how does this affect service delivery?
  – Novice
  – Advanced beginner
  – Competent
  – Proficient
  – Expert

Examples

» If a new model for graduate employment was introduced into an organisation, this might increase the number of recently qualified nursing/midwifery graduates within a service. Accordingly, the service's core staff profile would need to address how the primary roles and responsibilities of all staff would be used to accommodate the anticipated change in skill mix.

» In a rural and remote service, nurses and midwives are responsible for delivering primary health care to the community. In this event, the service's core staff profile would need to consider the education and competency requirements for nursing/midwifery staff employed in these environments.

- **Professional development, training and education** – describe the professional development, training and education needs for nurses and midwives within a service.

Questions to answer

» What frameworks are in place to support the professional development and requisite training for nurses and midwives in the service?

» What resources including time are required to undertake professional development and requisite training activities for nurses and midwives in the service?

» What resources are required to fulfil teaching commitments with universities and registered training organisations including undergraduate and post-graduate clinical placements?

Examples

» A service mapping exercise may identify the need to increase paediatric renal services, however the service area's current staff skill mix does not support this change in service delivery. In this event, the service profile would need to outline the anticipated resources and time required to undertake skills development and training for the relevant nursing and midwifery staff.

» All nursing and midwifery staff are entitled to professional development. The amount and level of this development is outlined in the relevant industrial instruments and needs to be factored into the service profile.

- **Patient safety and quality care** – describe the administrative and management responsibilities for nursing and midwifery staff in respect to delivering safe, high quality health care.

Questions to answer

» What is the service's patient safety and quality portfolio framework and how do nursing/midwifery staff participate in this portfolio?

» What resources, including time, are necessary to support the patient safety and quality portfolio framework?

» What is the service's research and evidence-based practice framework and how do nursing/midwifery staff in the service participate in these activities?

» What resources, including time, are necessary to support the research and evidence-based practice framework?

Examples

» In the event nursing staff in a general medical service identify resources required to improve the clinical handover process in alignment with the national safety and quality health service standards, the service profile must outline the anticipated resources and time required to implement these improvements including the methods of evaluation.

» All patient safety and quality care portfolios must be identified in the service profile with the necessary resources including time allocated.

Information technology and management

- **Information technology systems** – describe the management and clinical information technology systems available to nursing/midwifery services.

» What information technology systems are available in the service and which ones may be useful in maximising service delivery and patient outcomes?

» Is there access to the necessary information technology systems required to operate the service?

» How reliable and valid is the data extracted from the information technology systems?

» Are there any plans for future developments in or implementation of information technology systems to support health care delivery in the service?

Example 💬

» In the scenario where a new workforce planning information system is being used in a similar service in another health facility and the local service's nursing/midwifery team identify there would be benefits implementing this system locally, the information system and its benefits could be outlined in this section of the service profile.

- **Information management** – describe how data is collected, used and processed into information to support nurses/midwives in the delivery of safe, high quality health services.

Questions to answer ❓

» How does the information management for the service align with the data quality dimensions listed below?
  – Does the data accurately reflect the service?
  – Is the data consistent between systems and is there any duplication?
  – Is there evidence of data integrity between different local and organisational systems?
  – Is data available to the local service in a timely manner?
  – Is the data considered complete and presented in an easily understandable format?
  – Has the data been appropriately validated?

Examples 💬

» An organisation may choose to implement digital health records to improve the exchange of patient information between services. This organisational change has the potential to impact the nursing/midwifery resources required to operate the service and, as a result, should be acknowledged in the service profile.

» A simple assessment of the information systems in the service against the data quality dimensions, such as completeness, accuracy and consistency to determine any deficits that may affect the reporting of outcomes of service delivery.

Performance

- **Patient dependency/complexity** – describe the nursing/midwifery resources required to provide safe, high quality health care to different categories of patients experiencing different severities of illness.

Questions to answer

» What was the actual patient casemix for the previous service profile period?

» How dependent were patients on nursing/midwifery resources?

» What were the trends in patient casemix/complexity for the service during the previous service profile period?

» Were there any significant variances in patient casemix/dependency resulting in variances to nursing/midwifery workloads?

Examples

» A community health service offering 'walk-in' clinics three times a week for two hours each session faces variable patient attendance at these clinics. Accordingly, when developing the service profile, patient complexity is determined by reviewing past patient categories in conjunction with the number and type of nursing resources required during each clinic session.

» A patient dependency system can act as an important information source for patient acuity if one is available.

- **Patient activity** – describe the nursing/midwifery resources required to provide safe, high quality health care to meet the patient activity requirements of the service.

Questions to answer

» What was the actual patient activity for the previous service profile period?

» What was the agreed patient activity level as per the SA?

» What were the trends in patient activity within the service during the previous service profile period?

» Were there any significant variances in patient activity resulting in variances in nursing/midwifery workloads?

Examples

» There are several ways to measure patient activity within a service. The best method for a particular service will depend on the type of service/s provided, funding models and information technology systems.

Examples of commonly used activity measures

- Number of separations
- Weighted Activity Units
- Total occupied bed days
- Average occupancy
- Occasions of service
- Emergency Department presentations vs admissions
- Numbers per triage category
- Number of operating theatre sessions/complexity
- Operating minutes
- Number of day surgery cases
- Home visits occasions of service
- Number of births
- Retrievals
- Back-transfers
- Number of births: vaginal/caesarean
- Number of group sessions, numbers of attendees at group sessions
- Number of units of activity in Central Sterilising Departments
- Number of walk-in clinics

- **Service safety and quality** – describe the performance outcomes achieved by the service in relation to the agreed safety and quality framework.

» What safety and quality measures are currently in place for patients, staff and organisation?

» How did the service perform against the agreed safety and quality framework and is the level of performance acceptable?

» Were there any significant variances in safety and quality outcomes for patient, staff or the organisation?

Example

» There are several ways to measure safety and quality of a service. The method/s used for a particular service will need to align with professional, organisational and national safety and quality standards.

- **Financial outcomes** – describe the financial outcomes achieved by the service in relation to the agreed performance targets.

Questions to answer

» What financial measures are currently in place for the service?

» How did the service perform against the financial measures agreed in the previous service profile and is the level of performance acceptable?

» Were there any significant variances in the financial outcomes in relation to patient, staff or the organisation?

Example

» Where nursing labour costs within a particular service are over budget primarily due to the high use of overtime, consideration must be given to how the service will balance demand and resource supply in the new service profile. For example, a variance analysis should be conducted to explain differences between the planned nursing hours and the actual nursing hours used within the rostered period, or the actual expenditure against the forecast expenditure for the month.

Examples of commonly used safety and quality measures

Patient

- Access
- Adverse events
- Average length of stay
- Completed discharge summaries
- Patient follow ups
- Patient satisfaction
- Re-admission rates
- Variance in care plan
- Waiting times
- Infection rates
- Falls prevention

Staff

- Absenteeism
- Attrition rates
- Compliance with requisite competencies
- New staff ratio
- Professional development hours
- Redeployment
- Staff satisfaction
- WorkCover claims
- Workload grievances
- Staff vaccination rates

Service/organisation

- Activity and/or occupancy
- Budget integrity
- Compliance with nurse/midwife ratios and skill mix profile
- Compliance with policies
- Leave overbalance
- Nursing/midwifery hours and cost per activity unit
- Safety and quality frameworks
- Unwarranted service variation
- Workforce management

1.4.2 External environmental analysis

The external environment consists of conditions and forces that are usually beyond the control of the service. The following external environmental factors are provided as a guide:

- Policy/legal.
- Economic.
- Social.
- Technological.
- Research and evidence based practice.

Policy/legal factors – describe the impact of health policy and legislation on service delivery and nursing/midwifery resource requirements. Common change drivers include Commonwealth/state government, registration bodies, professional standards and industrial groups.

Questions to answer ❓

- » What are the legislative requirements for operating the service?
- » What are the health policy requirements for operating the service?
- » What are the national registration requirements for operating the service?
- » What are the professional standards and industrial requirements for operating the service?
- » How do the legislative, policy, registration, professional standards and industrial requirements impact nursing/midwifery resources in the service?

Example 💬

- » The legislation, regulation and standards which influence a health service include:
  - – *Health Practitioner Regulation National Law Act (QLD) 2009*
  - – *Hospital and Health Boards Act 2011*
  - – *Child Protection Act 1999*
  - – *Work Health and Safety Act 2011*
  - – Child Protection Regulation 2011
  - – *Mental Health Act 2014*
  - – Queensland Health Nurses and Midwives Award – State 2015

- – Nurses and Midwives (Queensland Health) Certified Agreement (EB9) 2016
- – Nursing and Midwifery Board of Australia Competency Standards
- – Australian College of Operating Room Nurses Standards 2014–2015.

Economic factors – describes the interface between funding/economic sources and health care providers that may impact the health service provided and the nursing/midwifery resources required.

Questions to answer ❓

- » What are the funding stream/types for the service?
- » Does the service participate in a public/ private partnership?
- » Does the service use high-cost or high-volume consumables that may be affected by fluctuations in the national or international economy?
- » How do the funding and economic factors impact the nursing/midwifery resources required to operate the service?

Example 💬

- » The development of a service profile – and the allocation of nursing/midwifery resources – will be influenced by the number of primary funding streams from state and Commonwealth governments and/or other sources as well as different funding methods such as population, activity, block and bundled payments. The Sunshine Coast University Hospital, as an example, is a joint venture involving the Sunshine Coast Hospital and Health Service, the University of the Sunshine Coast, TAFE Queensland East Coast and a medical school university. The impact of this joint venture on nursing/midwifery resources would need to be carefully considered when developing its service profile.

Social factors – describe the population demographics, cultures and community expectations that could influence the health service provided and the nursing/midwifery resources required.

Questions to answer

» What are the demographics of the population influencing health care needs within the service's catchment area?

» Is there a high level of cultural diversity influencing health care needs within the catchment area?

» What is the community's expectation of the health service?

» Is there a changing workforce profile within the service?

Examples

» Some examples where the impact of certain social factors would need to be addressed in the development of the service profile and, in particular, the effect on required nursing/midwifery resources:

   – an ageing and culturally diverse population in the service's catchment area

   – a service's consumer advisory group expects access to maternity and child health services

   – a high retirement risk for nursing/midwifery staff.

Technological factors – describe the external technological factors that could influence the health service provided and the nursing/midwifery resources required.

Questions to answer

» What are the external technological requirements for operating the service?

» Are these technological requirements being met?

» How do/will these technological factors impact nursing/midwifery resources?

Example

» An organisation has developed a strategic direction to expand telehealth medicine in rural health services. To be successful, this initiative relies on the successful roll out of the National Broadband Network (NBN) in the local community. However, a delay has been encountered in the delivery of the NBN, resulting in a delay to the telehealth expansion. When developing its service profile, this organisation would need to consider how this delay may affect the delivery of forecasted service activity and the nursing/midwifery resources required.

Research and evidence-based practice – describe how research and evidence-based practice influences the nursing/midwifery resources required to operate a health service.

Questions to answer

» Are there any external research activities being undertaken that may influence service delivery?

» Are there opportunities to participate in external research activities?

» How will the relevant research findings be applied within the service?

Example

» An organisation has participated in a study regarding leadership in nursing and midwifery services which finds there are benefits to implementing a mentorship program for senior nurses and midwives. When developing a service profile, the organisation would need to consider how these findings could be applied when allocating nursing/midwifery resources.

1.5 SWOT analysis

A SWOT analysis is a structured planning method used to evaluate the strengths, weaknesses, opportunities and threats involved in delivering a service in consultation with nursing/midwifery staff providing the service.

SWOT analysis involves identifying the internal and external factors that are favourable and unfavourable to the service area and can assist in identifying when and where additional nursing/midwifery resources may be required or reallocated to achieve improvements in service effectiveness and efficiency.

A SWOT analysis can assist in moving from a 'business as usual' position to a stronger focus on true work priorities.

- **Strengths** are *internal* characteristics of a service that give it an advantage over others.

- **Weaknesses** are *internal* characteristics that may place a service at a disadvantage when compared to others.

- **Opportunities** are *external* elements that a service area could use to its advantage.

- **Threats** are *external* elements that could cause challenges or difficulties for a service.

Developing a low priority activity list

- A strategy to manage demand and supply could include the development of a low priority activity list. Low priority activity lists will differ from service to service depending on the individual context of practice.

- The low priority activity list must be developed in consultation with nurses and midwives in the service and undertaken when developing the service profile. Once agreed, this list must be displayed in an area accessible for nurses and midwives in the clinical area.

- Examples of low priority activities that may be considered when a workload issue is identified may include:

  » non-essential data entry
  » attendance at non-patient related meetings
  » monitoring of visitors and other reception activities
  » administration activities including answering phones and filing
  » restocking/reordering non-essential patient consumables
  » non-essential patient escorts/transfers
  » cleaning and making beds.

Strengths

- Commitment to clinical portfolios
- Collaborative arrangements with other services (public and private)
- Commitment to research and evidence based practice
- Committed and motivated staff
- Committed to lifelong learning
- Compliance with organisational policies
- High level focus on education and training
- High level of service integration
- Increasing demand for services
- Majority of staff have specialty qualifications
- Effective succession management strategy

Weaknesses

- Inadequate BPF implementation
- Limited availability of information technology, including computers
- Clinical procedures performed outside the service
- Ineffective data management
- High levels of external nursing and midwifery agency use
- Growing demand for direct care hours
- Higher than statewide attrition level
- Low use of telehealth medicine services
- Minimum number of experienced nursing/midwifery staff available within the hospital's casual/relief pool.
- Physical layout requires three teams of nursing/midwifery staff to provide safe, high quality care

S **W** **O** **T**

Opportunities

- National health reform
- University affiliations
- External research grants
- External funding
- Collaborative programs with more primary and private services

Threats

- Unstable global economy
- National health reform
- Funding arrangements
- Levels of health literacy in the local community
- Nursing/midwifery supply

Guide to completing resource allocation

This guide should be used in conjunction with Module 2: Allocate resources of the Business Planning Framework: a tool for nursing and midwifery workload management 5th edition.

Resource allocation is a systematic process for developing nursing and midwifery services to achieve a balance between resource supply and service demand as per the agreed service profile. An adequate resource allocation ensures the effective and efficient management of resources, safe workloads and provision of quality health care.

Consultation with nurses and midwives providing the service is essential when developing the annual operating budget for nurses and midwives.

Establish total nursing/midwifery resource requirements

The following examples can be considered for determining balance between supply and demand when calculating nursing/midwifery hours:

- Use the agreed service profile as the primary source of information regarding required nursing and midwifery resource allocation.

- Undertake an historical service-based analysis of nursing and midwifery resources used in previous periods.

- Analyse patient activity/acuity trends and other environmental factors that have impacted on nursing and midwifery services.

- Forecast future patient activity/acuity trends and other environmental factors that will impact nursing and midwifery services.

- Compare the service with similar nursing and midwifery services and/or apply the relevant evidence.

- Undertake consultation with nursing and midwifery staff delivering the service.

Defining productive and non-productive nursing/midwifery hours

Nursing/midwifery productive and non-productive hours are defined as:

- Productive nursing and/or midwifery hours contribute to patient care and include both direct clinical and indirect clinical hours.

  » *Direct clinical hours* are the hours spent in activities that nurses and/or midwives perform directly related to patient care.
  » *Indirect clinical hours* are the hours spent in activities that support clinical processes.

Given that indirect clinical hours may be service specific, these need to be determined and negotiated locally. It is paramount that the allocation of these hours and associated resources are prioritised. The BPF addendums provide guidance for specialty areas, such as Mental Health Services, Primary and Community and Public Health Services and Perioperative Services.

- Non-productive nursing and/or midwifery hours are those hours where a nurse or midwife is paid for entitlements or conditions of the position, such as sick leave, annual leave and maternity leave, which do not involve direct or indirect clinical hours.

State-wide minimum standards have been agreed for calculating mandatory training, professional development and sick leave. Consideration should be given to 'other leave' items such as travel time associated with professional development leave when developing non-productive hours.

Examples of Productive hours:

- Direct clinical activities
- Clinical handover
- Communication with carers
- Home visits
- Medication administration/supply
- Patient care documentation
- Patient education
- Patient escorts, transfers and retrievals
- Telephone consultations and follow-up
- Indirect clinical activities
- In-charge/shift co-ordinator
- Travel time relating to patient care
- Staff development and continuing education
- Staff mentorship
- Human resource management activities
- Performance appraisal and development
- Staff orientation
- Research and practice development
- Mandatory/requisite training
- Work Cover (if being paid as part of workforce on a 'return to work program')

Examples of Non-productive hours:

- Annual leave
- Bereavement leave
- Conference leave
- Long service leave
- Parental leave
- Professional development leave
- Sick/family leave
- Travel time associated with conference leave
- WorkCover

Examples of direct care:

- Medication administration
- Documentation related to patient care
- Meal relief
- Organising patient transfers/procedures/tests
- Talking to relatives, patients and doctors about patient issues
- Discharge planning
- Team leader or coordinator in charge of the shift
- Review/adjustment of workload allocation by the senior RN/RM in charge of the shift
- Handover
- Nursing hours taken to leave the ward to conduct activities in the operating theatres
- All nursing hours provided by the ward to attend medical emergencies in other wards
- Nursing hours used to monitor/record observations for patients on remote telemetry
- Clinical procedures, including recovery
- Home visits
- Staffing general nursery - does not include babies 'rooming in' 24 hours a day
- Nursing/midwifery care provided to patients who are not inpatients - patients may be observed or assessed but not treated or admitted
- Nursing hours provided to supervise a patient in Radiology, nuclear medicine centres
- Escort between wards or to another organisation
- Retrieval of a patient from another ward or from another organisation/place
- Doctors' rounds
- Organising and attending teaching ward rounds
- Telephone advice to outpatients, relatives
- Patient education
- Outpatient treatment - e.g. wound dressings, removal of sutures, drains, catheters, blood sampling
- Antenatal classes or clinics
- Supplying medications from a pharmacy
- Clinical skills assessment activities

Examples of indirect care:

- Restocking with essential supplies
- Orientation
- Supernumerary time and ongoing support and supervision of staff
- Education and training on the clinical unit
- Attendance at ward or facility education and training programs
- Hours required to support undergraduate programs
- Assessing clinical skills (assessor)
- Research and practice development activities
- Nursing/midwifery hours on special projects
- Portfolio activities
- Performance appraisal and development activities, managing performance issues
- Organising and attending meetings
- Quality improvement projects and meetings
- Organising, reviewing and updating clinical policies and procedures
- Rostering activities
- Developing and monitoring budgets
- Writing reports and submissions
- Recruitment activities
- Ward management discussions with reporting or reviewing officers
- Investigating complaints

Establishing nursing and midwifery hours to meet service requirements

The productive and non-productive nursing and midwifery hours are calculated and converted into FTEs through the following steps:

STEP 1 Calculate total annual productive nursing and/or midwifery hours required to deliver service.

STEP 2 Determine skill mix/category of the nursing/midwifery hours.

STEP 3 Convert productive nursing/midwifery hours into full-time equivalents.

STEP 4 Calculate non-productive nursing and/or midwifery hours in accordance with nursing and midwifery award entitlements.

STEP 5 Convert non-productive nursing and/or midwifery hours into full-time equivalents.

STEP 6 Add productive and non-productive full-time equivalents together and convert into financial resources in partnership with business team.

STEP 7 Allocate nursing and/or midwifery hours to meet service requirements.

The annual operating expense budget is the financial aspect of the BPF. It is the total of the productive and non-productive nursing and midwifery hours that are calculated and converted to the required FTEs and associated costs.

Within each defined nursing/midwifery service, consultation with nurses and midwives providing the service is essential when developing the annual operating budget. It is important to note that it is recognised in the nursing and midwifery award that professional judgement is a valid method of determining a safe staffing level of nurses and midwives.

Step 1: Calculate total annual productive nursing and/or midwifery hours required to deliver service

When calculating total productive nursing/midwifery hours, the environmental analysis within the service profile must be considered to ensure appropriate staffing levels are identified within the operating environment of the service.

There are six basic methods to assist in determining the productive nursing/midwifery hours:

1. Legislated nurse/midwife-to-patient ratios.

2. Historical payroll/finance information.

3. Minimum safe staffing models.

4. Service/organisational benchmarking.

5. Patient dependency information.

6. Forecasting.

Forecasting is a method of determining what may happen in the future based on analysis of trends from the past and professional judgement. Accurate forecasting will assist with the determination and allocation of resources.

The outcomes of the evaluation of the previous service profile and the current environmental analysis will inform this process, revealing if the hours used in the past require adjustment.

Adjustments that could need to be factored into forecasting may be based on changes in:

- acuity/complexity of the activities. Acuity levels may be forecast by analysing past data (minimum 12 months) and considering the future;
- casemix of the service;
- clinical practice of the service;
- standards of care; models of care;
- role of the nursing/midwifery staff and or skill mix;
- estimated activity e.g. occupancy, occasion of service;
- annual activity targets set by Queensland Health (outlined in the SA).

Significant changes in these factors, and/or the results of benchmarking with other services, may suggest that the hours used in the past require adjustment.

Once the necessary adjustments to the nursing/midwifery hours have been identified, calculate the total number of productive nursing/midwifery hours required.

There are three formulas for calculating the average nursing/midwifery hours for a service.

Formula 1: Average hours per patient day

$$\text{Average hours per patient day} = \frac{\text{Total no. of nursing/midwifery hours worked (in a specific period)}}{\text{Total no. of occupied bed days (in the corresponding period)}}$$

Inpatient service example: Calculating productive hours

Rostered direct nursing/midwifery hours per month = 667.6 shifts = 5,340.8 hours

Rostered indirect nursing/midwifery hours per month = 126 shifts = 1,008 hours

Productive nursing/midwifery hours (paid) used per month = 6,348.8 hours

Total no. of occupied bed days = 1021

$$\text{Average hours per patient day} = \frac{6,348.8}{1021} = 6.22 \text{ N/MHPPD (direct and indirect)}$$

Data sources: DSS, HBCIS and local spread sheets

Formula 2: Average hours per occasions of service

$$\text{Average hours per occasions of service} = \frac{\text{Total no. of nursing/midwifery hours worked (in a specific period)}}{\text{Total no. of occasions of service (in the corresponding period)}}$$

Outpatient service example: Calculating productive hours
(operating Monday to Friday 0800-1700)

- Nurse Unit Manager   1.00 FTE
- Clinical Facilitator   0.32 FTE
- Clinical Nurse   1.50 FTE
- Registered Nurse   2.50 FTE
- Enrolled Nurse   1.00 FTE

Occasions of service = 980 per month

Rostered direct nursing hours per month = 97.06 shifts = 776.48 hours

Rostered indirect nursing hours per month = 32.94 shifts = 263.52 hours

Productive nursing hours (paid) used per month = 1,040 hours

$$\text{Average hours per occasions of service} = \frac{1{,}040}{980} = 1.06 \text{ N/MHPOS (direct and indirect)}$$

Data sources: DSS, HBCIS and local spread sheets

Formula 3: Average hours per unit of activity

$$\text{Average hours per unit of activity} = \frac{\text{Total no. of nursing/midwifery hours worked (in a specific period)}}{\text{Total no. of units of activity (in the corresponding period)}}$$

Community service example: Calculating productive hours

Clinical Nurse/Midwife   4.6 FTE

No. of units of activity per month = 77

No. of units of activity per nurse/midwife FTE = 16.74

Rostered direct nursing/midwifery hours per month = 87.66 shifts = 701.28 hours

Rostered indirect nursing/midwifery hours per month = 7.13 shifts = 57.04 hours

Productive nursing/midwifery hours (paid) used per month = 758.32 hours

$$\text{Average hours per unit of activity} = \frac{758.32}{77} = 9.85 \text{ N/MHPUA (direct and indirect)}$$

Data sources: DSS, HBCIS and local spread sheets

Calculating hours per patient day (HPPD)

The appropriate formula/s to use depends on the models of care used in a specific service, and the way activity is calculated.

Example of calculating hours per patient day (HPPD)

Ward with 28 beds operating 7 days/week at 100% occupancy
- Direct patient care staffing includes:
  - » AM 7 x 8 hour shifts
  - » PM 7 x 8 hour shifts
  - » ND 4 x 8 hour shifts

- HPPD $= \dfrac{((7 \times 8hrs) + (7 \times 8hrs) + (4 \times 8hrs)) \times 7 \text{ days}}{28 \text{ beds} \times 100\% \text{ occupancy} \times 7 \text{ days}}$

  $= \dfrac{1008}{196}$

  $=$ **5.14 HPPD**

Example of calculating annualised hours using HPPD

- Annualised Hours = HPPD x Beds x Occupancy (%) x days/week x 52 weeks
  = 5.14 HPPD x 28 beds x 100% occupancy x 7 days x 52 weeks
  = 52,387 hours

Step 2: Determine skill mix/ category of the nursing/midwifery hours

After the annual productive nursing/midwifery hours are calculated, the skill mix required to meet service demand must be identified, by referring to the service profile. The nursing/ midwifery skill mix will be unique to each service and should be based on:

- Professional/regulated skill mix requirements.
- Analysis of patient needs – acuity and complexity.
- Scope of practice for each nursing/midwifery category.
- Desired health outcomes.

The nursing/midwifery skill mix required for any particular service may differ by time of day, day of the week and /or other relevant service delivery factors.

Successful allocation of clinical hours is achieved when a balance has been reached between service demand and the supply of appropriate numbers and skill mix of nursing/ midwifery staff.

The professional judgement of nursing/ midwifery staff informs the minimum skill mix required to build a staffing roster to meet the demand created by the model/s of care.

Option 1 Example: Calculate Direct Roster Construct

Shift		Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total # Shifts	Total Hours	Total FTE	Weekly Skill mix
AM	Grade 7 *+									-	-	0%
AM	Grade 6	16	16	16	16	16	8	8	7	96.00	2.53	24%
AM	Grade 5	16	16	16	16	16	24	24	7	128.00	3.37	33%
AM	Grade 4	8	8	8	8	8	8	8	7	56.00	1.47	14%
AM	Grade 3	8	8	8	8	8	8	8	7	56.00	1.47	14%
AM	Grade 1 *	8	8	8	8	8	8	8	7	56.00	1.47	14%
	Total	**56**	**56**	**56**	**56**	**56**	**56**	**56**	**35**	**392.00**	**10.32**	100%
No of Staff		7	7	7	7	7	7	7				

Shift		Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total # Shifts	Total Hours	Total FTE	Weekly Skill mix
PM	Grade 7 *									-	-	0%
PM	Grade 6	8	8	8	8	8	8	8	7	56.00	1.47	14%
PM	Grade 5	24	24	24	24	24	24	24	7	168.00	4.42	43%
PM	Grade 4	8	8	8	8	8	8	8	7	56.00	1.47	14%
PM	Grade 3	8	8	8	8	8	8	8	7	56.00	1.47	14%
PM	Grade 1 *	8	8	8	8	8	8	8	7	56.00	1.47	14%
	Total	**56**	**56**	**56**	**56**	**56**	**56**	**56**	**35**	**392.00**	**10.32**	100%
No of Staff		7	7	7	7	7	7	7				

Option 1 Example: Calculate Direct Roster Construct (cont.)

Shift		Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total # Shifts	Total Hours	Total FTE	Weekly Skill mix	Weekly 24 hr Skill mix
ND	Grade 7 *									-	-	0%	0%
ND	Grade 6									-	-	0%	15%
ND	Grade 5	16	16	16	16	16	16	16	7	112.00	2.95	50%	40%
ND	Grade 4	8	8	8	8	8	8	8	7	56.00	1.47	25%	17%
ND	Grade 3									-	-	0%	11%
ND	Grade 1 *	8	8	8	8	8	8	8	7	56.00	1.47	25%	17%
	Total	32	32	32	32	32	32	32	21	224.00	5.89	100%	100%
No of Staff		4	4	4	4	4	4	4					

* Grade 7 and Grade 1 have been included as an example only. Grades included would be as determined by HHS Governance.

Option 1 Example: Calculate Indirect Roster Construct

Shift		Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total # Shifts	Total Hours	Total FTE	Weekly Skill mix
AM	Grade 7 *+	7.6	7.6	7.6	7.6	7.6			5	38.00	1.00	49%
AM	Grade 6	8	8	8	8	8			5	40.00	1.05	51%
AM	Grade 5								0	-	-	0%
AM	Grade 4								0	-	-	0%
AM	Grade 3								0	-	-	0%
AM	Grade 1 *								0	-	-	0%
	Total	15.6	15.6	15.6	15.6	15.6	0	0	10	78.00	2.05	100%
No of Staff		1.95	1.95	1.95	1.95	1.95	0	0				

+ Grade 6 and 7 are rostered at 7.6 hours per day to accommodate for rostered days off.

* Grade 6 is a Clinical Nurse / Clinical Facilitator and the Grade 7 is a Nurse Unit Manager.

Option 1 Total Productive (Direct and Indirect) Roster Construct Hours

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total # Shifts	Total Hours	Total FTE	Weekly Skill mix
Grade 7 *+	7.6	7.6	7.6	7.6	7.6	0	0	5	38.00	1.00	3%
Grade 6	32	32	32	32	32	16	16	24	192.00	5.05	18%
Grade 5	56	56	56	56	56	64	64	51	408.00	10.74	38%
Grade 4	24	24	24	24	24	24	24	21	168.00	4.42	15%
Grade 3	16	16	16	16	16	16	16	14	112.00	2.95	10%
Grade 1 *	24	24	24	24	24	24	24	21	168.00	4.42	15%
Total	159.6	159.6	159.6	159.6	159.6	144	144	136	1,086.00	28.58	100%
No of Staff	19.95	19.95	19.95	19.95	19.95	18	18				

Example

Inpatient Unit

Rostering preferences:

- NUM/CNC/NE – day shifts rostered Monday to Friday.
- Clinical Nurses – minimum of 1 CN on every shift (3 shifts/24 hrs) Monday to Sunday.
- RN/EN – to cover designated shifts (3 shifts/24 hrs) Monday to Sunday.

Nurse Grade	Hours/ week
Grade 7 (NUM, CNC, NE) – 22.80 hours per day 5 days/ week	114
Grade 6 (Clinical nurse) – 66.00 hours per day 7 days/ week	462
Grade 5 (Registered nurse) – 111.00 hours per day 7 days/ week	777
Grade 4 (Enrolled nurse) – 16.00 hours per day 7 days/ week	112
Total	**1,465**

Example

Community service

Rostering preferences:

- Clinical Nurse – average three staff per day (two shift service, 7 days/week).

Nurse Grade	Hours/ week
Grade 7 (NUM, CNC, NE) – Nil	0
Grade 6 (Clinical nurse) – 25 hours per day 7 days/week	175
Grade 5 (Registered nurse) – Nil	0
Grade 4 (Enrolled nurse) – Nil	0
Total	**175**

Example

Outpatient service

Rostering preferences:

- NUM – day shifts rostered Monday to Friday.
- Clinical Nurses – minimum of one per day (Monday to Friday, day shifts only).
- RN – to cover shifts based on service activity (Monday to Friday, day shifts only).
- EN – one per day (Monday to Friday, day shifts only).

Nurse Grade	Hours/ week
Grade 7 (NUM, CNC, NE) – 7.60 hours per day 5 days/ week	38
Grade 6 (Clinical nurse) – 13.80 hours per day 5 days/ week	69
Grade 5 (Registered nurse) – 19.00 hours per day 5 days/ week	95
Grade 4 (Enrolled nurse) – 7.60 hours per day 5 days/ week	38
Total	**240**

Option 2 Example:

Percentage Allocation Method of Total Nursing Hours

CN	20%
RN	70%
EN	10%

Step 3: Convert productive nursing/midwifery hours into full-time equivalents

To convert productive nursing/midwifery hours into FTE, the average number of hours worked per week in a service is divided by the weekly hours equivalent to one FTE.

$$FTE = \frac{\text{Number of hours worked per week in the service}}{\text{Weekly hours of one FTE (38)}}$$

The following examples demonstrate how to convert productive nursing/midwifery hours worked per week into FTE.

Example

$$FTE = \frac{1{,}008 \text{ nursing/midwifery hours per week}}{38}$$

$$= 26.53 \text{ FTE}$$

Example

Outpatient service

$$\frac{240 \text{ nursing/midwifery hours per week}}{38} = 6.32 \text{ FTE}$$

Nurse/Midwifery Grade	Hours/week	Weekly FTE (Column 1/38)
Grade 7 (NUM, CNC, NE) – 7.6 hours per day 5 days/week	38	1.0
Grade 6 (Clinical nurse) – 13.8 hours per day 5 days/week	69	1.8
Grade 5 (Registered nurse) – 19 hours per day 5 days/week	95	2.5
Grade 4 (Enrolled nurse) – 7.6 hours per day 5 days/week	38	1.0
Total	240	6.3

Example

Inpatient service

$$\frac{1{,}465 \text{ nursing/midwifery hours per week}}{38} = 38.55 \text{ FTE}$$

Nurse/Midwifery Grade	Hours/week	Weekly FTE (Column 1/38)
Grade 7 (NUM, CNC, NE) – 22.8 hours per day 5 days/week	114	3.0
Grade 6 (Clinical nurse) – 66 hours per day 7 days/week	462	12.2
Grade 5 (Registered nurse) – 111 hours per day 7 days/week	777	20.4
Grade 4 (Enrolled nurse) – 16 hours per day 7 days/week	112	3.0
Total	1,465	38.6

Example

Community service

$$\frac{175 \text{ nursing/midwifery hours per week}}{38} = 4.61 \text{ FTE}$$

Nurse/Midwifery Grade	Hours/week	Weekly FTE (Column 1/38)
Grade 7 (NUM, CNC, NE) – 7.6 hours per day 5 days/week	0	0
Grade 6 (Clinical nurse) – 13.8 hours per day 5 days/week	175	4.6
Grade 5 (Registered nurse) – 19 hours per day 5 days/week	0	0
Grade 4 (Enrolled nurse) – 7.6 hours per day 5 days/week	0	0
Total	175	4.6

Step 4: Calculate non-productive nursing and/or midwifery hours in accordance with nursing and midwifery award entitlements

Non-productive hours can be calculated once the total productive FTE requirements have been determined. Non-productive nursing/midwifery hours include all leave and mandatory training requirements. The calculation needs to include the requirements of the relevant industrial instruments and the operational environment of the service in partnership with the line manager and finance team.

The calculation needs to include the leave replacement hours and costs associated with non-productive entitlements. Hours must be converted into a daily percentage. The operational environment of the service needs to be considered and items such as travel time for professional development leave should be reflected in the calculation of non-productive hours. These calculations may be undertaken in collaboration with the line manager and business managers.

It is recognised that professional judgement is a valid method for determining a safe staffing level of nurses and midwives.

Multipliers for specific non-productive hours: annual leave, sick leave and professional development leave.

The following provides the process for the determination of agreed multipliers local for the backfilling of annual leave, sick leave and professional development leave:

(i) Calculate the locally derived average of leave taken, based on the previous three consecutive years of leave data and calculated after the completion of the previous financial year.

(ii) Calculate the locally derived average of backfill provided to cover periods of leave, based on the previous three consecutive years of leave data and calculated after the completion of the previous financial year.

(iii) When determining the level of backfill, it is recognised that where the activity in which an employee is normally engaged (e.g. provision of clinical care) continues during the employee's period of leave, replacement of that employee to the level of activity required must occur during the leave period.

(iv) Determine the locally agreed multiplier based on the leave taken and backfill provided over the previous three years in consultation with the local HHS BPF Steering Committee and local NaMCF.

(v) Where the local leave multiplier is higher than the maximum Award entitlement, the organisation will use the multipliers detailed below for budgeting purposes:

» For Sick Leave (10 days): 3.85%
» For Annual Leave (4 weeks): 7.60%
» For Annual Leave (5 weeks): 9.50%
» For Annual Leave (6 weeks): 11.40%
» For PDL (3 days): 1.15%
» For PDL - RANIP (10 days): 3.85%

Mandatory training is based on an agreed minimum time to be allocated per head count of nursing and midwifery staff for the purposes of achieving annual competencies and speciality training requirements as outlined within the service profile. The minimum allocation for this multiplier is eleven days (83.6 hours) for new staff and five days (38 hours) for existing staff. The provision of mandatory training time above or below the recommended minimum time should be agreed at the local level using an endorsed process involving the BPF Steering Committee and the Nursing and Midwifery Consultative Forum.

Examples

How to calculate the non-productive nursing/midwifery hours in FTE is provided in the following tables. The transference of this practice to a specific service area will depend on local recruitment strategies and business rules. It is recommended these strategies are discussed with nursing/midwifery and business teams first before being applied.

The calculations shown in the tables can be applied to all grades of staff within the following examples provided.

Inpatient service example (based on headcount of 48)

Grade	FTE	Annual Leave (5/6 weeks)	Sick Leave (4%)	Professional Development Leave (PDL) (1.15%)	Mandatory Training		Total FTE
					Average 4 new staff headcount (4.23%)	Existing 44 staff headcount (1.92%)	
7	3.0	0.29 (5)	0.12	0.05			3.46
6	12.2	1.40 (6)	0.49	0.18			14.27
5	20.4	2.35 (6)	0.82	0.24	0.17	0.85	24.83
3	3	0.33 (6)	0.12	0.05			3.50
1	0	0	0	0			0
Total	**38.6**	**4.37**	**1.55**	**0.52**	**0.17**	**0.85**	**46.06**

Note: Mandatory training is calculated based on headcount. Hence, for the example provided the headcount for the unit has been set at 48 staff. The mandatory training FTE allocation has been incorporated into the nurse/midwife grade 5 level as a recruitment strategy.

Outpatient service example (based on headcount of 9)

Grade	FTE	Annual Leave (5/6 weeks)	Sick Leave (4%)	Professional Development Leave (PDL) (1.15%)	Mandatory Training		Total FTE
					Average 4 new staff headcount (4.23%)	Existing 44 staff headcount (1.92%)	
7	1.0	0.10 (5)	0.04	0.01			1.15
6	1.8	0.17 (5)	0.07	0.02			2.06
5	2.5	0.24 (5)	0.10	0.03	0.04	0.15	3.06
3	1.0	0.10 (5)	0.04	0.01			1.15
1	0	0	0	0			0
Total	**6.3**	**0.61**	**0.25**	**0.07**	**0.04**	**0.15**	**7.42**

Note: Mandatory training is calculated based on headcount. Hence, for the example provided the headcount for the unit has been set at 9 staff. The mandatory training FTE allocation has been incorporated into the nurse/midwife grade 5 level as a recruitment strategy.

Community service example (based on headcount of 6)

Grade	FTE	Annual Leave	Sick Leave	Professional Development Leave (PDL)	Mandatory Training		FTE
					Average 4 new staff headcount	Existing 44 staff headcount	
7	0	0	0	0	0	0	0
6	4.6	0.44 (5)	0.18	0.05	0.04	0.10	5.41
5	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0
Total	**4.6**	**0.44**	**0.18**	**0.05**	**0.04**	**0.10**	**5.41**

Note: Mandatory training is calculated based on headcount. Hence, for the example provided the headcount for the unit has been set at 6 staff.

Step 5: Convert non-productive nursing and/or midwifery hours into full-time equivalents

Examples

How to calculate the non-productive nursing/midwifery hours in FTE is provided in the following tables. The transference of this practice to a specific service area will depend on local recruitment strategies and business rules. It is recommended these strategies are discussed with nursing/midwifery and business teams first before being applied.

The calculations shown in the tables below can be applied to all grades of staff within the examples provided, as shown below:

- **Calculation example for Registered Nurse/Midwife (Grade 7) (3 FTE):**
  - » Annual leave FTE = productive FTE x annual leave (week) % = 3.0 x (9.5/100) = 0.28 FTE
  - » Sick leave FTE = productive FTE x sick leave % = 3.0 x (3.85/100) = 0.11 FTE
  - » Professional development leave FTE = productive FTE x PDL% = 3.0 x (1.15/100) = 0.03 FTE

    Total non-productive FTE for 3 FTE = 0.43

- **Calculation example for Registered Nurse/Midwife (Grade 5) (20.4 FTE):**
  - » Annual leave FTE = productive FTE x annual leave (6 week) % = 20.4 x (11.40/100) = 2.32 FTE
  - » Sick leave FTE = productive FTE x sick leave % = 20.4 x (3.85/100) = 0.78 FTE
  - » Professional development leave FTE = productive FTE x PDL% = 20.4 x (1.15/100) = 0.24 FTE
  - » Mandatory training (11 day) = new staff headcount x 11 day % = 4 x (4.23/100) = 0.17 FTE
  - » Mandatory training (five day) = existing staff headcount x 5 day % = 44 x (1.92/100) = 0.85 FTE

    Total non-productive FTE for 20.4 FTE = 4.36

All examples are calculated to two decimal places.

Step 6: Add productive and non-productive full-time equivalents together and convert into financial resources in partnership with business team

This step provides the ability to negotiate and discuss both productive and non-productive FTE requirements from a financial perspective with the aim of matching supply with demand.

Calculating FTE costs is the next step in developing the nursing/midwifery annual operating budget. Put simply, this comprises adding together the productive and non-productive nursing and midwifery hours identified in previous steps and then converting them to financial figures.

There are two main methods used to convert the FTE required to a dollar value:

- **Method 1: Nurse/midwife-by nurse/midwife** – uses the hourly rate of an individual grade and pay point to calculate the total cost.

- **Method 2: Averaging** – involves using the average cost of a category of staff.

It is recommended that the process of costing the required FTE is undertaken in consultation and collaboration with senior nurses and midwives and business managers.

Nurse/midwife-by nurse/midwife method

This comprises:

- Calculating the costs of FTE required within the service by collecting information about the grade and pay points of all nursing/midwifery staff.

- Determining the total annual base salary per grade by adding together the annual base salary of each grade and pay point.

- Calculating the total cost for each grade by using the established multiplier percentages provided in *Step 5: Calculate and convert non-productive nursing/midwifery hours into FTE*.

Example

1. Calculate the costs of FTE required within the service by collecting information about the grade and pay points of all nursing/midwifery staff.

Following this, access the current annual base salary per pay point which is available through QHEPS: http://www.health.qld.gov.au/hrpolicies/wage_rates/nursing.asp.

The annual base salary of FTE per grade and pay point can then be calculated using the formula below:

Annual base salary = pay point per grade ($) X FTE
Annual base salary = Nursing/midwifery grade 6.1 ($74,148) x 2 = $148,296.

2. Determine the total annual base salary per grade by adding together the annual base salary of each grade and pay point.

Total annual base salary/grade 6 = (grade 6.1 ($) + grade 6.3 ($) + grade 6.4 ($))
= $148,296 + $388,315 + $413,041
= $949,652

The total annual base salary per grade can then be used to calculate the costs of nursing/midwifery staff in the next step.

3. Calculate the total cost for each grade by using the established multiplier percentages provided in Step 5: Calculate and convert non-productive nursing/midwifery hours into FTE.

Productive			Non-productive						
Grade & Paypoint	FTE	Total Ann Base Salary (as at 1 April 2016)	Penalties @ 24%	Ann Leave @ 9.6% (5 weeks)	Sick Leave @ 4%	Proff Dev Leave @ 1.15%	Mandatory Training		Total $
							Avg Headcount of new staff (4) @ 4.23%	Avg Headcount of existing staff (44) @ 1.92%	
7.3	1.0	$112,664	$27,039	$10,816	$4,507	$1,296			$156,322
6.3 (Band 1)	1.8	$161,433	$38,744	$15,498	$6,457	$1,856			$223,988
5.3	2.5	$179,580	$43,099	$17,240	$7,183	$2,065	$12,154	$60,684	$322,005
3.3	1.0	$58,171	$13,961	$5,584	$2,327	$669			$80,712
1.3 (Band 1)	0.0	-	-	-	-	-			-
Total	**6.3**	**$511,848**	**$122,843**	**$49,138**	**$20,474**	**$5,886**	**$12,154**	**$60,684**	**$783,027**

Averaging method

This comprises of:

- Calculating the costs of FTE required within the service by collecting information about the grade and pay points of all nursing/midwifery staff.

- Determining the total annual base salary per grade by adding together the annual base salary of each grade and pay point.

- Calculating the total cost for each grade by using the established multiplier percentages provided in *Step 5: Calculate and convert non-productive nursing/midwifery hours into FTE*.

Example

Averaging method

1. Calculate the costs of FTE required within the service by collecting information about the grade and pay points of all nursing/midwifery staff.

The table below is an example of how this information can be documented.

Grade	Paypoint	FTE	Total Ann Base Salary per paypoint (as at 1 April 2016)
7	3	1.0	$112,664
6 (Band 2)	1	1.0	$96,275
6 (Band 1)	3	0.8	$71,748
5	7	0.7	$58,948
5	4	0.8	$59,934
5	2	1.0	$68,743
3	3	0.5	$29,086
Total		**5.8**	**$497,398**

2. Determine the total annual base salary per grade by adding together the annual base salary of each grade and pay point.

The total annual base salary per grade can then be used to calculate the costs of nursing/midwifery staff in the next step.

3. Calculate the total cost for each grade by using the established multiplier percentages provided in Step 5: Calculate and convert non-productive nursing/midwifery hours into FTE.

Productive			Non-productive						
Grade & Paypoint	FTE	Total Ann Base Salary (as at 1 April 2016) ($ Average)	Penalties @ 24% ($ Average)	Ann Leave @ 9.6% (5 weeks) ($ Average)	Sick Leave @ 4% ($ Average)	Proff Dev Leave @ 1.15% ($ Average)	Mandatory Training: Avg Headcount of new staff (4) @ 4.23% ($ Average)	Mandatory Training: Avg Headcount of existing staff (44) @ 1.92% ($ Average)	Total $
7	3.0	$337,992	$81,118	$32,447	$13,520	$3,887			$468,964
6	12.2	$1,138,823	$273,318	$109,327	$45,553	$13,096			$1,580,117
5	20.4	$1,531,021	$367,445	$146,978	$61,241	$17,607	$12,698	$63,402	$2,200,393
3	3.0	$174,513	$41,883	$16,753	$6,981	$2,007			$242,137
1	0.0	-	-	-	-	-			-
Total	**38.6**	**$3,182,349**	**$763,764**	**$305,505**	**$127,295**	**$36,597**	**$12,698**	**$63,402**	**$4,491,611**

Step 7: Allocate nursing and/or midwifery hours to meet service requirements

The final step is to balance the supply of nursing/midwifery resources with service demand as agreed in the service profile. This is the fundamental aim of the BPF: to achieve a balance between supply and demand. Variations in service demand, particularly for activity, can differ according to:

- Time of day.

- Day of week.

- Seasons.

- Multidisciplinary team availability.

- Compulsory service closures.

- Other locally significant reasons such as tourism, industry and major community events.

Quantitative methods in conjunction with professional judgement, knowledge and experience are used to prioritise and negotiate the allocation of nursing/midwifery resources with service demand to reach an agreed service profile.

Guide to evaluation of performance

This guide should be used in conjunction with Module 3: Evaluate performance of the Business Planning Framework: a tool for nursing and midwifery workload management 5th edition

Performance evaluation is the process of reviewing the effectiveness and efficiency of a service's resource supply against service demand to achieve safe, high quality nursing/midwifery services.

To evaluate service performance, the performance measures determined by the relevant Hospital and Health Service need to be adapted to support the objectives outlined in the specific service profile.

The application of a performance management framework will improve the collection and analysis of data to support the delivery of nursing/midwifery services. A performance management framework demonstrates achievements and variations which may be used to inform global improvements in clinical services.

It will also help to deliver consistency and transparency in reporting the achievements of the service to the organisation and the public.

Measuring performance

Measuring performance is the means of evaluating the overall effectiveness, efficiency and appropriateness of service planning and resource allocation against service targets. Performance measures include financial and non-financial indicators that are based on service objectives and the strategic direction of the organisation (See glossary for further information on performance measures). Performance targets will determine the measures of performance to be applied within a service.

When evaluating performance, actual results should be compared with:

- Planned key performance measures and targets.

- Historical performance outcomes.

- Performance of interrelated services.

Effectiveness measures

Effectiveness measures reflect the actual outcomes achieved for patients, staff and the organisation based on the targets set by a service and/or organisation.

- **Service effectiveness** is the relationship between service objectives and the actual outcomes achieved.

- **Cost effectiveness** is the relationship between the service's operating budget and the actual outcomes achieved.

Efficiency measures

Efficiency measures reflect the actual capability of the resources allocated to meet service and/ or organisational targets that have been set for patients, staff and the organisation.

There are three types of efficiency measures:

- **Technical efficiency** requires that health services are produced at the lowest possible cost.

- **Allocative efficiency** requires the production of health services that are most valued by patients and are provided within a given set of resources.

- **Dynamic efficiency** requires that patients are offered existing and new services at a higher quality and/or lower cost.

Activity measures

Activity measures reflect the volume of work being undertaken in a service including, the number of services provided, the number of patients accessing the service and any other associated activities. Activity measures can be converted into efficiency measures by combining them with input measures to show the unit cost of the activity.

Process measures

Process measures reflect the means by which the service is delivered. Process measures can be substituted for effectiveness measures if it is practical or uneconomical to measure the effectiveness of the service or its outcome in any other way.

Input measures

Input measures reflect the human and consumable resources used to deliver a service, either as an absolute figure or as a percentage of total resources. Input measures can be converted to efficiency measures by combining them with activity measures to show the unit cost of the activity.

Quality measures

Quality measures reflect the ability of a service to provide safe, high quality health services based on organisational/state/national requirements. Quality measures work in conjunction with other performance measures to ascertain service effectiveness.

Equity measures

Equity measures reflect how well a service is meeting the needs of particular groups within their organisation and/or community. These measures indicate the equity of access and equity of outcomes between patients using/requiring the same service. Equity measures can be used to demonstrate variances in service delivery and outcomes between particular groups and the general community.

Examples of commonly used safety and quality measures

Commonly used performance measures suitable for nursing/midwifery services include:

Patient

- Ease of access
- No. of adverse events
- Average length of stay
- Discharge summaries completed
- Patient follow-up completed
- Patient satisfaction
- No. of unplanned re-admissions
- No. of unplanned variances in care plan
- No. of patients on wait list

Staff

- Absenteeism rates
- Staff attrition rates
- Staff satisfaction
- Requisite competencies rates
- New-to-establish staff ratio
- No. of professional development hours used
- No. of staff redeployments
- No. of WorkCover claims
- No. of workload grievances
- No. of staff involved in mentorship programs

Service/Organisation

- No. of activity units
- Percentage of occupancy
- Budget integrity
- Compliance with nurse and midwife-to-patient ratios and skill mix profile
- Compliance with policies
- Leave over balance rates
- Nursing/midwifery costs/activity unit
- Compliance with safety and quality frameworks/accreditation

Frequency of measures

The frequency of measuring and evaluating performance is variable. It is recommended that senior nursing/midwifery officers and business managers are consulted and collaborated with to ensure the service is complying with the reporting requirements of the organisation.

Service targets

Service targets are the expected level of performance for a service. They are often derived from the SAs which are based on state/national performance frameworks and standards. The criteria for service targets include:

- Measurable: service targets must be a clear and transparent standard of success.

- Clear and unambiguous: service targets must be clear in stating what the service is to achieve within an expected timeframe.

- Relevant: service targets must be aligned with the wider organisation's strategic plan, which links the service to national/state agreements, performance frameworks and safety and quality standards.

- Attributable: service targets must be capable of being influenced by actions that can be attributed to the service. It should be clear who has accountability for achieving the target, and what the consequences are if the target is not met.

- Achievable: service targets should be achievable within the available human and consumable resources to reach a balance between supply and demand in the nursing/midwifery service.

- Comparable: service targets can be compared with past periods or similar services.

- Reliable and verifiable: service targets should be able to produce accurate data for the intended purposes, measured consistently and be responsive to change.

Reporting performance

Reporting on the performance of a service is essential to demonstrate accountability, transparency, continuous improvement and delivery of safe, high quality nursing/midwifery services. This reporting can occur in several ways and at various levels depending on the organisation's business and governance requirements. Different reporting methods include:

- Performance scorecards.
- Nursing/midwifery minimum data sets.
- Comparative analysis.
- Benchmarking.

Performance scorecards

Scorecards are a collection of management reporting tools used to measure the performance of a respective business area or unit against the objectives outlined within the operational plan or service level agreement. Performance scorecards are composed of a range of financial and non-financial effectiveness and efficiency measures, which are compared to a performance target within a single, concise report.

Scorecards are primarily based on four main perspectives, including:

- Learning and growth.
- Business process.
- Customer.
- Financial.

To build a scorecard for local nursing and midwifery service, customisation of these perspectives will be required. This may be undertaken at either service or organisational level.

Statewide nursing performance scorecard

The Office of the Chief Nursing and Midwifery Officer has developed a statewide nursing performance scorecard to assist with reporting and monitoring trends across public nursing services. The scorecard aligns with the three principles of the BPF: patients, staff and organisation, it is interactive and enables a review of multiple interrelated measures across skill mix, sustainability, productivity/efficiency and quality.

An outline of the content of the statewide nursing scorecard is below.

Skill mix	Sustainability	Productivity/efficiency	Quality
• Total workforce (headcount) • Clinical workforce (headcount) • Nursing skill mix (FTE) • Registered Nurse skill mix (FTE) • Internal-external skill mix	• Age profile • Age profile by skill mix • Fractional FTE rate by age • Graduate employment • Leave profile • Leave over limit • Rostered days off • Workcover rates • Turnover rates	• Agency usage • Casual usage • Overtime usage • Efficiency targets • Nursing cost per activity unit • Activity unit profile	• Blood transfusion incidents • Medication administration incidents /1,000/ patient day/s • Hospital acquired falls • Hospital acquired pressure injuries

Nursing/midwifery performance dashboards

Performance dashboards visually display information derived from scorecards in real time for the purposes of informing daily decision making to assist in the delivery of safe, high quality nursing/midwifery services.

Nurse sensitive indicators (NSIs)

NSIs are a set of standardised performance measures intended to help services assess the extent to which nursing interventions have impacted on patients, safety, quality and the professional work environment. The NSI reporting tool delivers a series of useful and relevant reports to analyse, trend, monitor, compare and/or benchmark the care delivered by nurses.

The NSIs primarily relate to adult inpatient services and provide information on the following:

- Number of falls.

- Number of pressure injuries.

- Number of medication administration incidents.

- Number of blood transfusion incidents.

- Number of health care associated staphylococcus aureus bacteraemia incidents.

- Hand hygiene compliance.

- Nursing/midwifery agency usage.

- Nursing/midwifery skill mix percentages.

- Nursing/midwifery sick leave usage.

For further information about the NSI tool and report refer to http://qheps.health.qld.gov.au/nmoq/profession/nsi_about.htm

Nursing/midwifery minimum data sets

Nursing/midwifery minimum data sets apply uniform definitions and categories relevant to specific areas of nursing/midwifery to provide an accurate description of the processes used for diagnosis, care delivery, resource allocation and patient outcomes.

Nursing/midwifery minimum data sets provide formal structure and identification of data elements, which facilitates the collation of information about nursing/midwifery care, patients and service providers.

The key purpose of minimum data sets is to identify, analyse and promote service delivery that results in efficient and cost-effective care, as well as provide data for research.

Minimum data sets have a wider application than NSIs as they allow for the analysis and comparison of nursing/midwifery data across numerous services, populations, geographic areas and time periods.

Minimum data sets can be used to describe the contribution of nurses and midwives in those areas not currently covered by the NSIs such as paediatrics, maternity, perioperative, mental health and community services. It is recommended that senior nursing/midwifery staff are consulted and collaborated with when using minimum data sets.

Comparative analysis

Internal and external comparisons are necessary to effectively evaluate the performance of a nursing/midwifery service.

- **Internal comparison** compares the current performance of a service with its performance during a previous period to evaluate outcomes/trends.

Examples:

- At the end of a financial year, a community health service compares wait list times and range of services provided with the previous financial year's performance.

- Each month an inpatient service undertakes comparisons of the average length of stay for specific diagnostic related groups and the associated nursing hours per patient day.

- **External comparison** compares the performance of a service with other similar services. When comparing services, consideration should be given to differing internal and external environmental factors as these differences influence a service's resource supply and service demand.

Examples:

- At the end of a financial year, a community health service compares wait list times and range of services provided with a similar service in another Hospital and Health Service.

- Each financial quarter, an inpatient service undertakes comparisons of the average length of stay for specific diagnostic related groups and the associated nursing hours per patient day with a similar service in another Hospital and Health Service.

Benchmarking

Benchmarking is a type of comparative analysis that provides a snapshot of a service's actual performance in relation to other similar services. The benchmarking process is often used to measure the performance of a service against set targets in other comparable services.

There are several different types of benchmarking that can be applied within a service. They include:

- **Process benchmarking:** observes, investigates and compares service processes with other organisations to determine those processes that are considered 'best practice'.

- **Financial benchmarking:** investigates and compares the service's financial outcomes in relation to achieving value for money.

- **Performance benchmarking:** investigates and compares service outcomes against predetermined organisational/state/national targets to evaluate the delivery of safe, high quality health care.

- **Strategic benchmarking:** observes and compares organisational strategic direction and achievements with internal and external services.

- **Functional benchmarking:** observes and compares the functions of an organisation and how these functions impact on service performance.

Balancing supply and demand in nursing/midwifery services

The Business Planning Framework provides a formal benchmark and agreement for aligning workplace demand with nursing and midwifery supply to ultimately ensure support for safe and appropriate staffing levels and workplace provisions. The BPF's intent is to assist in avoiding misalignment between nursing/midwifery demand and supply.

This section outlines the process for reviewing and responding to workload issues when misalignment occurs and remedial action needs to be taken.

A systematic approach to service planning and budgeting for nursing and midwifery services allows the Nurse/Midwifery Unit Manager to identify, clarify and document any known or potential issues impacting resource allocation.

The aim of the BPF process is to achieve a balance between supply and demand to enable the identification and correction of imbalances when:

- Service demand is greater than the supply of resources.

- Supply of resources is greater than service demand.

Safe, high quality nursing/midwifery services can only be achieved by adjusting either resource supply or service demand, or in some circumstances both.

Strategies to take when there is an imbalance include:

- When service demand is greater than the supply of resources:

  » Identify what is the actual capacity and capability of the nursing/midwifery service.
  » Prioritise clinical nursing/midwifery activities and tasks (refer to: Developing a low priority list).
  » Change/alter patient casemix where possible.
  » Change/alter nursing/midwifery skill mix where possible.
  » Seek assistance from nursing/midwifery support services.
  » Consider a time-framed approach to reducing access to services.
  » Consider adjusting service activity/performance targets.
  » Escalate the identified imbalance/s through the BPF governance framework (refer to: Management of Emergent Situations).

- When the supply of resources is greater than service demand:

  » Reallocate the available nursing/midwifery hours e.g. staff redirection.
  » Reduce the available nursing/midwifery hours e.g. roster re-engineering/leave options.
  » Increase flexibility in staff roster e.g. TOIL, variable shift lengths.
  » Adjust service activity/performance targets.
  » Escalate the identified imbalance/s through the BPF governance framework.

Managing nursing/midwifery vacancies

The overall nursing and midwifery workforce strategy for a Hospital and Health Service is managed through its Nursing and Midwifery Workforce Plan.

Staff vacancies impact the ability of a service to effectively and efficiently deliver safe, high quality nursing/midwifery care. Staff vacancies occur for a variety of reasons and periods, including unexpected leave. Managing unexpected vacancies may require individualised consideration in terms of maintaining the required staffing profile to support service delivery.

Vacancies that arise on a shift by shift, day to day basis must be addressed to maintain the balance between supply and demand. Notional ratios must be displayed so nurses and midwives have information about the minimum level of agreed staffing that applies on a shift by shift basis.

Nursing/midwifery support services provide an organisational strategy to help manage staff leave, secondments and/or attrition. The purpose of a nursing/midwifery support service is to provide appropriately skilled, permanent staff to fill vacancies while recruitment processes and/or longer-term solutions are undertaken.

Nursing/midwifery support services are not intended to be the primary source of backfill for annual leave in other services as this requirement is routinely included in the non-productive hours of a service profile.

Application examples:

- New graduates may be employed permanently in the nursing/midwifery support service and allocated to work in services experiencing extended/multiple vacancies.

- Experienced staff may be employed permanently in the nursing/midwifery support service and allocated to work in services experiencing skill mix shortage due to extended/multiple vacancies.
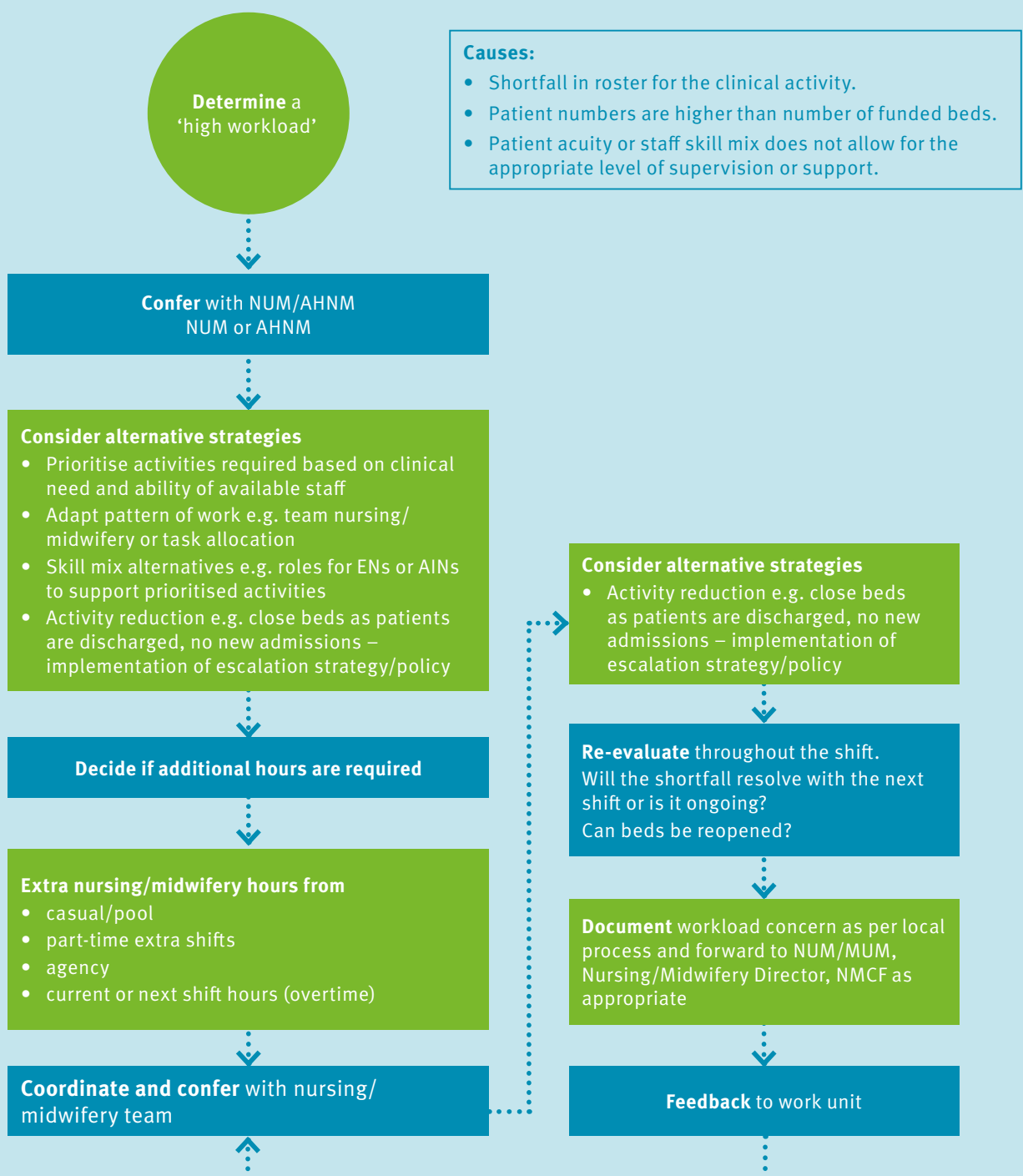
Managing emergent imbalance in supply and demand

Emergent imbalances in a service may occur on any shift and can be caused by:

- Unexpected leave of staff members who are unable to be replaced.

- Unplanned increases in service activity/ acuity/complexity.

In this event, nurses and midwives should have workload management strategies in place to ensure patient and staff safety which include but are not limited to the "low priority list" and escalation process.

The flow diagram below provides guidance for managing emergent imbalances in supply and demand as they arise on a shift:

Determine a 'high workload'

Causes:
- Shortfall in roster for the clinical activity.
- Patient numbers are higher than number of funded beds.
- Patient acuity or staff skill mix does not allow for the appropriate level of supervision or support.

Confer with NUM/AHNM
NUM or AHNM

Consider alternative strategies
- Prioritise activities required based on clinical need and ability of available staff
- Adapt pattern of work e.g. team nursing/ midwifery or task allocation
- Skill mix alternatives e.g. roles for ENs or AINs to support prioritised activities
- Activity reduction e.g. close beds as patients are discharged, no new admissions – implementation of escalation strategy/policy

Consider alternative strategies
- Activity reduction e.g. close beds as patients are discharged, no new admissions – implementation of escalation strategy/policy

Decide if additional hours are required

Re-evaluate throughout the shift.
Will the shortfall resolve with the next shift or is it ongoing?
Can beds be reopened?

Extra nursing/midwifery hours from
- casual/pool
- part-time extra shifts
- agency
- current or next shift hours (overtime)

Document workload concern as per local process and forward to NUM/MUM, Nursing/Midwifery Director, NMCF as appropriate

Coordinate and confer with nursing/ midwifery team

Feedback to work unit

Managing workload issues

The *Nurses and Midwives (Queensland Health) Award State 2015* determines the step by step process for escalating nursing and midwifery workload concerns. The workload escalation process assists staff and managers in effectively addressing and resolving any workload issues raised to ensure safe, high quality health care services are delivered. It is important to follow each step in its entirety, as this will mitigate risks to patients, staff and the organisation.
http://qirc.qld.gov.au/qirc/resources/pdf/awards/n/nurses_and_midwives.pdf

Workload management concern escalation process

This is the process for the resolution of workload concerns including those that may impact on patient and staff safety. Any nurse, midwife, employer or union representative may raise a workload concern.

Where a workload concern creates an immediate and substantial risk to the safety of patients or staff, interested parties will work together to address the concern as a matter of urgency by immediate escalation to Stage 3.

Stage 1

Where a nurse/midwife identifies a workload concern, it will be raised immediately at the service level with the line manager responsible for ensuring the BPF has been correctly applied.

The parties will engage to resolve the concern within 24 hours.

The line manager or after-hours nurse/midwife manager is responsible for immediately investigating the workload concern identified and implementing actions (including introducing locally agreed low priority strategies) to resolve the identified concern, mitigate risk to patient safety and/or prevent reoccurrence.

Stage 2

If the workload concern is not resolved at the service level at Stage 1, it may be escalated for discussion between the nurse/midwife, union representative and nursing/midwifery executive team (i.e. Nursing Director and above depending on the nursing/midwifery executive structure of the facility).

The parties will review the identified workload concern and determine and implement further actions to resolve the identified concern, mitigate risk to patient safety and /or prevent reoccurrence, within 7 days of the workload concern being referred to Stage 2.

Stage 3

If the workload concern is not resolved at Stage 2, the nurse/midwife, employer and/or union representative party may escalate for resolution.

Resolution will be by discussion between the Executive Director of Nursing/midwifery or, when a workload concern is within the Department of Health (DoH), the professional lead equivalent and union representative.

Discussions will be held within 7 days of the concern being escalated to Stage 3 by any concerned party.

Note: the workload concern should also be tabled for reporting purposes to the next immediate Workload Management Committee/Nursing/Midwifery Consultative Forum.

Stage 4

If the workload concern is not resolved at Stage 3, a specialist panel must be convened by the HHS EDON or DoH equivalent within 7 days (or longer as agreed by the parties) of the concern being escalated from Stage 3 by a concerned party.

The specialist panel will comprise the following nominees:

Employer nominees:

- HHS EDON or DoH equivalent.
- External EDON peer (optional).
- HHS/DoH BPF expert.
- External BPF expert – other HHS or OCNMO.
- HHS/DoH HR/IR representative.

QNU nominees:

- Industrial Officer.
- Professional Officer.
- Organiser.
- QNU Workplace representatives.

The specialist panel will review the identified workload concern and jointly recommend actions to resolve the identified concern, mitigate risk to patient safety and/or prevent reoccurrence. The recommendations should include timeframes for implementation.

The recommendations of the specialist panel meeting must be published. Feedback on the actions taken and those actions to be taken must be provided to staff affected by the identified workload concern within 3 days of the conclusion of the panel's deliberations.

Stage 5

If the workload concern is not resolved at Stage 4, a concerned party may refer the matter to the Queensland Industrial Relations Commission for conciliation and, if necessary, arbitration.

An unresolved concern at this stage may include instances where the specialist panel is unable to reach an agreed position or the recommendations of the specialist panel are not implemented or are only partially implemented.

Workload escalation and reporting principles

To proactively manage and effectively address workload management issues, robust communication and reporting principles are to be followed. In short, these are:

- **Nurse/Midwifery Unit Manager** communicates to all staff affected by the identified workload issue on the actions taken.

- **Senior nursing/midwifery officer** confers with local service level staff, the QNU official and reports to the Nursing and Midwifery Consultative Forum on the actions taken.

- **Nursing/Midwifery Executive Team** communicates to all affected staff and the Nursing and Midwifery Consultative Forum on the actions taken and to be taken to address the identified workload issue. If the matter is not able to be resolved it is to be referred to the specialist panel. The Nursing/Midwifery Executive Team have the responsibility to communicate the progress and outcomes of the specialist panel to all affected staff.

- **Nursing/Midwifery Executive Officer** provides a thematic summary of identified workload issues and actions to the Hospital and Health Services Patient Quality and Safety Committee and Executive Committee to endorse the specialist panel's recommendations, if required.

Appendix 1
Service profile template

This service profile template includes the minimum headings required for content inclusion for the service profile. The format of the service profile should be contextualised and branded to the relevant Hospital and Health Service.

It is recommended that this template is used in conjunction with:

- 'Module 1: Develop Service Profile' within the Business Planning Framework: a tool for nursing and midwifery workload management 5th edition.
- Guide to completing a service profile.
- Guide to completing resource allocation.

Service Profile

Name of service:

Aim of service:

Objectives of service:

Describe the present service:

Environmental analysis

- **Internal environmental analysis**

    Structural

    » Location, size and physical design:

    » Access to health services:

    » Service structure:

    » Model/s of care:

    » Nursing and midwifery structure:

    Human Resource Management

    » Leadership and management:

    » Organisational culture:

    » Core staff profile:

    » Professional development, training and education:

    » Patient safety and quality care:

Information technology and management

» Information technology systems: [_____]

» Information management: [_____]

» Previous service performance: [_____]

» Patient dependency/complexity: [_____]

» Patient activity: [_____]

» Service safety and quality: [_____]

» Financial outcomes: [_____]

- **External environmental analysis**

» Policy/legal factors: [_____]

» Economic factors: [_____]

» Social factors: [_____]

» Technological factors: [_____]

» Research and evidence-based practice: [_____]

» Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis:

Strengths	Weaknesses
Opportunities	Threats

Agreed priority list template

We the nurses of the _____ service at _____ Hospital and Health Service notify that the following low priority activity list will be applied when a workload issue has been identified to ensure patient and staff safety.

The low priority activities that may not be undertaken when a workload issue is identified include:

- [*insert activity*]

- [*insert activity*]

If the above low priority activity list does not maintain patient and staff safety then the nurses will exercise their professional judgement in conjunction with relevant senior nursing officers and the integrated bed management strategy to close beds and/or constrain service activity until staffing levels and /or skill mix are restored.

Date list is endorsed: __/__/__

See Appendix 3 for agreed template.

Resource allocation

Import report/data from Information Technology system used to develop resource allocation.

Direct hours nursing/midwifery roster construct

Shift	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
AM							
PM							
Night							
Total hours							

Direct care ratio

Clinical discretion and professional judgement is to be exercised by all nurses/midwives to maintain patient and staff safety.

(Table below can be completed to demonstrate the notional ratios on each shift)

Nurse/midwife to patient notional ratio – Direct Hours				
Shift times – range of hours	Occupied beds	Nursing hours required per 24 hour period	Shift options	Notional ratios
AM 0600-1500	25	56 Direct	8 hour	1:3.5 to 1:4 or 7 staff + NUM* (Monday to Friday) 7 staff (Saturday/ Sunday)
PM 1230-2300	25	45 Direct	8 hour	1:4.5 or 1:5 or 5.6 staff
ND 2130-0730	25	24 Direct	8 hour	1:8.3 to 1.9 or 3 staff
24 hours	25	125 hours	8 hour	Variable per shift

*NUM – Nurse Unit Manager

BPF Service Profile Summary
Negotiation and Formal Agreement

Ward/Unit Name:

Hospital & Health Service:

Service Group:

Financial Year Period:

Agreed

NHPPD [   ] _____ Beds   @ _____   % Occupancy

NHPOS [   ] _____ Daily OOS   @ _____   % Occupancy

NHPUA [   ] _____ Daily UoA   @ _____   % Occupancy

	Requested FTE	Budgeted FTE	Approved FTE*	% of Total Approved FTE	Approved FTE inclusions					Total Nursing Labour Budget $
					Base	A/L	S/L	MDT	PDL	
NUM					100%					
CNC					100%					
CN					100%					
RN					100%					
GRAD					100%					
USIN					100%					
AIN					100%					
Total										

* Approved FTE is the total FTE allowable to be recruited to without formal application to increase FTE with the relevant Nursing & Service Group Directors. This number would match and be reportable using Panorama DSS.

Approval

This is to certify that negotiations have occurred as per the Business Planning Framework and agreement has been reached in regards to the nursing resource requirements outlined above.

_____   _____   _____
Nurse Unit Manager   Nursing Director: Business Service Manager

Date: __ / __ / __   Date: __ / __ / __   Date: __ / __ / __

☐ Budget provided to NUM/Line Manager

☐ Service Profile provided to NM BPF Resources for publishing

Appendix 2
Notional Nurse/Midwife: Patient Ratios

NOTIONAL NURSE/MIDWIFE: PATIENT RATIOS

Queensland Government

THE UNION FOR QNU — **NURSES AND MIDWIVES**

HEALTH FACILITY: _____

WARD/UNIT/WORK AREA: _____

Nursing and Midwifery workload management in Queensland Health is in accordance with the
Business Planning Framework as per the
Nurses and Midwives Queensland Health Award – State 2015

SHIFT	AVERAGE NURSING/MIDWIFERY HOURS REQUIRED*
Day shift	_____ direct hours OR _____ hours per occasion of service
Evening shift	_____ direct hours OR _____ hours per occasion of service
Night shift	_____ direct hours OR _____ hours per occasion of service

THIS CONVERTS TO A NOTIONAL NURSE/MIDWIFE: PATIENT RATIO AS FOLLOWS:
Day shift — 1 nurse per _____ patients#
Evening shift — 1 nurse per _____ patients
Night shift — 1 nurse per _____ patients

* Average hours reflects expected clinical requirements, it does not include specials.
# Plus Nurse Unit Manager on a Monday to Friday basis.

Notes for nurses and midwives completing this table:

- Nurse Hours per Patient Day (24 hours) for each clinical unit is to be utilised to define a notional nurse/midwife: patient ratio.
- The required nurse/midwife: patient ratio in some services (wards/units/work areas) may vary on an hour by hour basis and requires consideration of patient acuity and staff skill mix.
- Minimum safe staffing levels are applied in a number of QH wards/units/work areas and are used to determine the nursing/midwifery hours required.
- Prioritisation of nursing/midwifery activities is to occur when service demand is greater than workforce supply and should reflect the clinical judgement of the Nurse Unit Manager or nominated delegate in collaboration with the clinical nursing team.

PATIENT SAFETY AND SUSTAINABLE WORKLOADS WILL BE THE GUIDING PRINCIPLES IN DEFINING NURSING/MIDWIFERY HOURS REQUIRED.

Updated September 2016

Appendix 3
Workload Low Priority List

WORKLOAD LOW PRIORITY LIST

QH NURSES AND MIDWIVES
PROVIDE SAFE PATIENT CARE

Queensland Government

THE UNION FOR
QNU+
NURSES AND MIDWIVES

Nursing and midwifery workload management in Queensland Health is in accordance with the **Business Planning Framework** per Clause 39.3 of the *Nurses and Midwives Queensland Health Award – State 2015.*

Providing safe and quality nursing and midwifery care and protecting patients, nurses and midwives are the priorities on every shift. When workload management issues arise, nurses and midwives will consider their professional accountabilities and apply their professional judgement to prioritise their work in order to ensure that safe nursing and midwifery care is maintained.

HEALTH FACILITY: _____

WARD/UNIT/WORK AREA: _____

Examples of low priority activities that may not be undertaken when a workload issue is identified by nurses and midwives include *non-essential:*

- ☐ Data entry (unless required by nurses and midwives)
- ☐ Meeting attendance (unless required by nurses and midwives)
- ☐ Management of telephone calls
- ☐ Management of enquiries
- ☐ Monitoring of visitors in the ward/unit/area
- ☐ Movement of beds, bed equipment, and furniture
- ☐ Bed making
- ☐ Patient escorts
- ☐ Re-stocking and re-ordering supplies
- ☐ Document filing and downloading of documents for filing
- ☐ Collection/transportation of patient meals
- ☐ Administrative duties – such as file preparation
- ☐ Other

The timing of admissions and discharges will be aligned with the capacity of available nurses and midwives to complete these processes.

Where nurses and midwives exercising their professional judgement determine that prioritisation is inadequate to maintain staff & patient safety, nurses and midwives may do as follows in accordance with Clause 39.3 of the *Nurses and Midwives Queensland Health Award – State 2015,* which states in part 'any bed closure will occur within the context of the integrated bed management arrangements of the facility':

a) **adjust nursing and midwifery services; and/or**

b) **close beds as they become vacant.**

When a workload management concern is identified, the nurse/midwife notifies this to their line supervisor, such as NUM, by completing a workload reporting form and engages in problem solving to resolve the concern within 24 hours. If the workload concern is not resolved, it is escalated for resolution through discussions with the nursing and midwifery executive team.

If the concern remains unresolved, it is escalated to the EDNM for discussion and resolution with QNU. The concern is also referred to NaMCF so that trends can be tracked and solutions to ongoing workload issues can be explored and implemented.

Nurses and midwives will not undertake low priority activities as indicated above while the workload concern is being resolved.

PATIENT SAFETY AND SUSTAINABLE WORKLOADS WILL BE THE GUIDING PRINCIPLES FOR IDENTIFYING LOW PRIORITY ACTIVITIES.

Updated September 2016

Appendix 4
Glossary

Terms	Definition/description	Evidence reference/link
Acuity	A measure of patient complexity and intensity which assists nurses and midwives to identify and plan resources to provide safe nursing and midwifery care.	
Accrued Day Off (ADO)	A day accrued as a result of the method of working ordinary hours where employees are rostered off on various days of the week during a particular work cycle. An employee may have one or more days off during that cycle.	http://www.qirc.qld.gov.au/resources/pdf/awards/q/q0090_swc13.pdf
Benchmarking	A tool used for evaluating performance. The process of benchmarking examines the operation, process and methods used to achieve best practice, and can be done internally within the health service or externally with other health services.	http://www.business.qld.gov.au/business/starting/market-customer-research/benchmarking-business
Casemix	A generic term for a method of classifying the activities that health services deliver. It is a description of the mix and type of patients treated in a hospital. Casemix may be defined as an information tool involving the use of scientific methods to build and make use of classifications of patient care episodes. The term may be taken to refer to both: • the number and types of patients treated • the mix of bundles of treatments, procedures or other services provided to patients.	What is Casemix Funding
Clinical costing system	A clinical costing system: • captures financial and patient information from feeder systems (e.g. DSS, Payroll, HBCIS) • organises financial information and patient utilisation into departments • costs products at department level • assigns products and costs to patients. The Clinical Costing System (Transition II) is a data warehouse with resource tracking and clinical costing tools. Transition II, recognises that each patient receives a unique "bundle" of services (e.g. nursing time, pathology tests and theatre procedures) and identifies these services for each individual patient episode. About 85% of the clinical activity of Queensland Health is captured by the system.	http://casemix.health.qld.gov.au/CC/costing.html
Clinical Service Capability Framework (CSCF)	The *Clinical Services Capability Framework* for public and licensed private health facilities outlines clinical and support services which hospitals can safely provide within their capability level. The responsibility for implementing, monitoring, complying with and notifying changes in service levels in public health facilities will rest with Hospital and Health Service Chief Executive Officers.	http://www.health.qld.gov.au/cscf/
Cost centre	A resource/accounting code where the costs for all services for a particular unit or setting are allocated. A cost centre allows costs within pre-designated areas to be readily identified and managed by a designated person.	http://qheps.health.qld.gov.au/financenetwork/financial_policy/docs/FMPM/fmpm_appendices.pdf BPF Manual 4th Edition p56 https://www.health.qld.gov.au/qhpolicy/docs/gdl/qh-gdl-909.pdf

Terms	Definition/description	Evidence reference/link
Diagnosis-related groups (DRGs)	Form a patient classification system used in Australia that groups together similar diagnosis and procedure types. This information is used to provide a meaningful and consistent way to clinically assess the types of treatment provided and to inform activity-based funding models, patient costing and benchmarking.	http://qheps.health.qld.gov.au/ppb/docs/qms/data/gdl206_data_guide.pdf http://qheps.health.qld.gov.au/abf/home.htm
Direct nursing/midwifery hours	The nursing/midwifery hours used to support direct care to patients/clients.	
Episode of care	A period of admitted patient care between a formal statistical admission and a formal or statistical separation, characterised by only one care type. An admission may be 'statistical' in that the patient changed from one type of admitted patient to another (between any two of acute, rehabilitation, palliation, or non-acute) without being separated from the hospital. An episode of care is a phase of treatment. Accordingly, there may be more than one episode of care within the one hospital stay. An episode of care ends when the principal clinical intent changes or when the patient is formally separated from the facility. Episodes of care which are included are: • acute care • rehabilitation care • palliative care • geriatric evaluation and management • psychogeriatric care • maintenance care • other admitted care • qualified newborns.	http://qheps.health.qld.gov.au/ppb/docs/qms/data/gdl206_data_guide.pdf DSS casemix glossary (fix link) https://www.health.qld.gov.au/hic/QHID/Hospital_Activity/html/episodes%20cumul.asp
External environmental factors	Factors which are generally outside of the control of the business and may include political decisions, technological changes, market demographics and competitor behaviour.	http://www.business.qld.gov.au/business/starting/market-customer-research/swot-analysis/example-swot-analysis
Fixed costs	Costs which do not change as volume changes.	
Forecast	A prediction of some future value e.g. activity levels, acuity levels, nursing and midwifery hours required.	
Fractional bed day	The actual hours a bed is occupied.	
Full-time equivalent (FTE)	The number of employee hours (paid, unpaid or contracted) divided by the Award standard hours per fortnight.	http://qheps.health.qld.gov.au/financenetwork/financial_policy/docs/FMPM/fmpm_appendices.pdf
Appointed FTE	Number of full-time equivalent positions that are appointed or used against established positions.	http://qheps.health.qld.gov.au/financenetwork/bud_fore_data_ana/docs/bus_ana/procedures/fte_budfte_paper.pdf
Approved FTE	Number of FTE positions that are approved, and have been established within the payroll system.	
Budgeted FTE	The funded positions that are likely to be filled during the financial year, including overtime and external roles. These positions are identified and approved when developing an annual budget.	http://qheps.health.qld.gov.au/financenetwork/bud_fore_data_ana/docs/bus_ana/procedures/dis_bfte_upl_ins.pdf
Hospital and Health Service (HHS)	A statutory body with a Hospital and Health Board, accountable to the local community and the Queensland Parliament.	http://www.health.qld.gov.au/health-reform/

Terms	Definition/description	Evidence reference/link
Indirect nursing/ midwifery hours	Activities undertaken by nurses and midwives which benefit patients and clients while not in direct contact with them. This includes education and training on the clinical unit, mandatory competence attainment, quality improvement activities, portfolio activities, performance appraisal and unit orientation time.	
Internal environmental factors	Factors that are generally internal to the business and therefore can be influenced by the business. This may include: funding that is available, resources/staff and current processes.	http://www.business.qld.gov.au/ business/starting/market-customer-research/swot-analysis/example-swot-analysis
MOHRI Occupied FTE	Minimum Obligatory Human Resource Information (MOHRI) is a whole of government methodology for collecting workforce data about every Queensland Government employee to capture reliable workforce information and use this to make informed strategic decisions. Under this reporting requirement, the value of an Occupied FTE is sourced from the QHealth payroll system data for reporting and monitoring. The data reported is based on the cost centre that the position is assigned to in payroll. MOHRI FTE is calculated by dividing the contracted employee hours into the Award standard hours that the employee should work.	http://dss.health.qld.gov.au/dss/ docs/MOHRI_Occupied_FTE_and_ Headcount_explanation.pdf
Nursing and Midwifery Consultative Forum (NaMCF)	A consultative group formed within each HHS to maintain timely and effective consultation on nursing/midwifery issues at the district, facility or service level. The forum will usually comprise the Executive Director of Nursing and Midwifery Services, Directors of Nursing, Queensland Nurses' Union representatives, and other relevant parties as determined by the HHS, such as human resource representatives.	
Nursing and Midwifery Implementation Group (NaMIG)	The peak consultation forum between Queensland Health and the Queensland Nurses Union.	
Non-productive nursing and midwifery hours	Paid, non-worked hours where the employee is not physically contributing to patient care. This can also be measured as a non-productive FTE (number of hours divided by Award-standard hours) and includes annual leave, sick leave, paid parental leave, work cover leave.	
Nurse Sensitive Indicator (NSI)	A set of standardised performance measures intended to assist health facilities to assess the extent to which nursing/midwifery interventions impact on patient safety, quality and the professional work environment.	http://qheps.health.qld.gov.au/ nmoq/profession/nsi_about.htm http://paweb.sth.health.qld.gov.au/ nursing/nsi/default.asp
Nursing and midwifery hours per patient day	The average nursing and/or midwifery hours per patient day for hospital inpatients.	
Nursing and midwifery hours per occasions of service	The average nursing hours per unit of activity for ambulatory patients (e.g. Emergency Department, outpatients	
Occasion of service	Any examination, consultation, treatment or other service provided to a non-admitted patient in a functional unit or a health service facility.	https://www.health.qld.gov.au/ hic/QHID/Hospital_Activity/html/ occasions%20month.asp
Occupied bed day (OBD)	The occupancy of a hospital bed by an inpatient for up to 24 hours.	http://qheps.health.qld.gov.au/ ppb/docs/qms/data/gdl206_data_ guide.pdf
Operating expenses	The costs associated with the operations of a service. This includes all overhead, fixed and non fixed costs.	

Terms	Definition/description	Evidence reference/link
Patient Dependency System (PDS)	A system that classifies patients according to the intensity of nursing/midwifery care needed and therefore indicates the amount of nursing hours required.	http://qheps.health.qld.gov.au/ppb/docs/qms/data/gdl206_data_guide.pdf
Productive nursing and midwifery hours	Productive hours are the hours an employee is paid for which directly contribute to patient care. When measured through FTE, this includes base salary and wages, overtime and recall.	Essentials of Nursing Leadership & Management - https://books.google.com.au/books?isbn=128568706X Patricia Kelly, Janice Tazbir - 2013
QH FTE	An internal Queensland Health mechanism for measuring a FTE position. Reporting of these positions is based on the cost centre the employee is paid from in payroll and may NOT be the same as the cost centre actually assigned to the position. A QH FTE is calculated by dividing the actual hours worked into the Award standard hours that the employee should work.	http://qheps.health.qld.gov.au/financenetwork/financial_policy/docs/FMPM/fmpm_appendices.pdf
Scorecards	Scorecards are management reporting tools used to measure the performance of a respective business area or unit against the objectives outlined within the operational plan or service level agreement.	http://dss.health.qld.gov.au/dss/docs/scorecard_intro.pdf
Service agreements (SA)	An agreement between Queensland Health and each Hospital and Health Service which defines the health services, teaching, research and other services that are to be provided by the HHS and the allocated funding for the delivery of these services. It also defines the outcomes that are to be met by the HHS and how its performance will be measured. The agreement also includes a protocol for managing any concerns about performance.	http://www.health.qld.gov.au/hhsserviceagreement/default.asp
Service profile	Describes the role and function of a service.	http://www.health.qld.gov.au/services/default.asp BPF Manual 4th Edition p 15
Skill mix	Skill mix is defined as the balance of trained and untrained, qualified and unqualified, registered and unregistered, supervisory and operative staff, and proportions of workers in different staff groups in distinct areas. Grade mix relates to the classification of staff, their activities and costs.	Primary Care Trust Workforce: Planning and Development - Page 73 https://books.google.com.au/books?isbn=0470698624 Keith Hurst - 2008
Standard FTE	The performance reporting FTE for Queensland Health (QH), which is a key performance indicator in the Queensland Health Scorecard. Standard FTE includes all paid hours, including overtime, sick leave, special leave and maternity leave with pay. It excludes unpaid, long service and recreation leave. Penalties and back pays do not result in the production of an FTE figure and therefore are not included in any FTE calculations.	http://qheps.health.qld.gov.au/finance/accounting/useful-information.htm
SWOT analysis	A strategic planning tool used to evaluate internal strengths (S) and weaknesses (W) of a service, as well as external opportunities (O) and threats (T). It provides information that is useful in matching resources and capability to the operational environment of the service area or business. A SWOT analysis can be instrumental in identifying and choosing the best strategies and practices to achieve optimal results.	http://www.business.qld.gov.au/business/starting/market-customer-research/swot-analysis
Variance	Any difference between expected results and actual outcomes, such as a difference between a budget and actual expenditure.	

Terms	Definition/description	Evidence reference/link
Variance analysis	Comparison of actual results against expected results, and analysis of reasons for the variation.	
Weighted Activity Units (WAU)	Value applied to the activity of hospitals that denotes the amount of resources used. The greater the WAU, the higher the resource usage.	http://qheps.health.qld.gov.au/ppb/docs/qms/data/gdl206_data_guide.pdf
Year-to-date (YTD)	A measure of the position from the start of financial year to the current date used to inform financial reporting and give an indication of the performance to date.	