BUSINESS PLANNING FRAMEWORK

The methodology for nursing and midwifery workload management

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Queensland Government

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qheps.health.qld.gov.au/hr/policies-agreements-directives/enterprise-bargaining/nurses-midwives

Table of Contents

Overview

The *Business Planning Framework: the methodology 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 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 achieve the delivery of safe, high quality services. The BPF methodology 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, including skill mix
- 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 escalates 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, HHSs and the Queensland Nurses and Midwives' Union (QNMU).

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

The BPF should be read in conjunction with current industrial instruments covering nurses and midwives employed within Queensland Health, as well as relevant Queensland Health policies and legislation affecting nurses and midwives.

A series of BPF addenda have also been developed to provide guidance on the application of the BPF for particular areas of practice and improve the consistency and transparency of business planning practices in these specialty settings.

LEGISLATED MINIMUM NURSE TO PATIENT RATIOS

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 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* (the Standard) is based on the BPF.

> This approach focuses on achieving a balance between service demand and the supply of nursing or midwifery resources.

NOTIONAL NURSE TO PATIENT RATIOS

In addition to legislated minimum nurse to patient ratios, each ward/unit will define its notional nurse/midwife to patient ratios specifying the nursing/midwifery hours per patient day (or occasions of service) they are required to provide which will vary in accordance with changing acuity and activity (refer Appendix 5). Where the notional nurse/midwife to patient ratio is higher than the legislated minimum nurse to patient ratios, the notional ratio derived through the BPF methodology must still be adhered to.

MINIMUM SAFE STAFFING

As part of the BPF process, minimum safe staffing requirements form one of the considerations when determining productive hours in module 2.

Minimum safe staffing refers to a definitive minimum staffing level of nurses and/or midwives to support the safe provision of care to patients/consumers. In determining minimum safe staffing compliance with any pertinent legislative requirements is considered mandatory, and sound reasoning must exist for departing from any relevant professional standards or codes of practice.

It is acknowledged that, consistent with the provisions of the industrial instruments, professional judgment is a valid criterion for deeming a definitive staffing level of nurses and/or midwives as being safe.

Principles of the Business Planning Framework

THE BPF IS UNDERPINNED BY THREE PRINCIPLES:

1. Safe and high quality consumer 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 services.

PRINCIPLE 1
THE CONSUMER

The BPF embraces consumer-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 consumers
- Meeting agreed performance outcomes to deliver safe, equitable and high quality health services that maintain dignity and consumer empowerment
- Promoting the 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 change 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 consumer outcomes, consumer experience and consumer value
- Ensuring nursing and midwifery resource allocation aligns with safe consumer 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 prison health services.

Purpose of the BPF

The BPF is the industrially mandated workload management methodology for nurses and midwives in Queensland Health. 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 services provided (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. This process is undertaken in consultation with the services' nursing and midwifery workforce.

The BPF methodology guides the user to analyse a nursing or midwifery service, determine the nursing or midwifery workloads based on service demand, and to evaluate the performance of the nursing or midwifery service. Each HHS has a dedicated BPF resource which provides support and expertise in the application and completion of the BPF.

The outcome of the BPF process is the development of a BPF Service Profile (consisting of modules 1 and 2) 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.

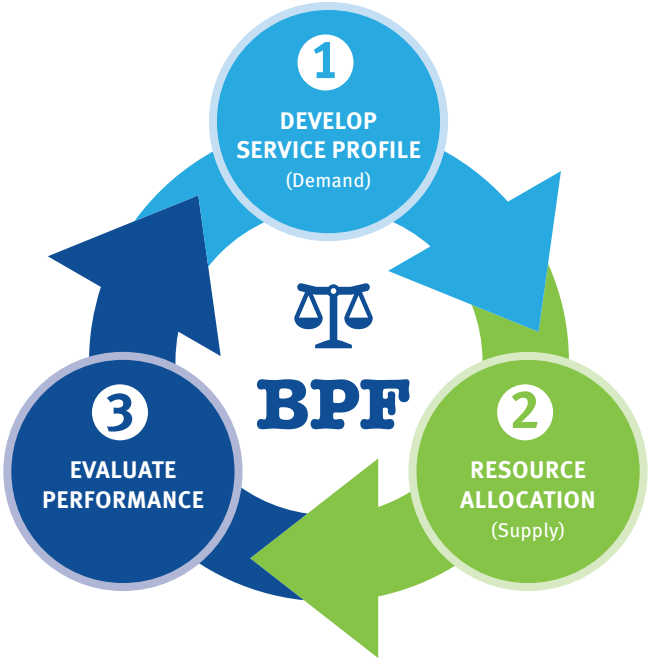
Business planning and/or review is undertaken annually in alignment with the financial year. A review of the BPF Service Profile will also be required if changes occur relating to key factors such as patient/consumer acuity, patient/consumer activity, service delivery or nursing/midwifery resource supply. 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.

THE BPF PROCESS COMPRISES THREE MODULES (STAGES)

- ✔ **MODULE 1** Development of a service profile
- ✔ **MODULE 2** Resource allocation
- ✔ **MODULE 3** Evaluation of performance

A complete BPF Service Profile consists of both module 1 and module 2. The analysis and information contained within module 1 (service profile) will inform the development of module 2 (resource allocation), and both modules will form the complete BPF Service Profile document. The approved BPF Service Profile, consisting of module 1 and module 2, must be tabled at the Nursing and Midwifery Consultative Forum (NaMCF).

The implemented BPF Service Profile is then evaluated in line with Module 3.



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

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

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

BPF SERVICE PROFILE - RECOMMENDED TIMEFRAMES	
MONTH	**TASK**
NOVEMBER	Commence gathering evidence including the data and results of ongoing evaluation of the previous service profile and any trends evident in the current BPF Service Profile
JANUARY	Commence reviewing the BPF Service Profile (consisting of modules 1 and 2) with the unit/ward/ service nursing and midwifery staff
FEBRUARY	complete the draft BPF Service Profile (consisting of modules 1 and 2) and commence budget workup
MARCH TO JUNE	commence budget negotiations (see Table 1)
JUNE/JULY	finalise BPF Service Profile sign-off

The above timeframes are recommendations only and should be adjusted to align with the timeframes for HHS Service Level Agreement negotiations. Preparing a draft BPF Service Profile prior to the commencement of HHS Service Level Agreement negotiations will ensure that the negotiations can be informed by accurate information about the demands on a particular service and associated workforce requirements.

It is important to note the following considerations as part of planning the BPF process:

- It is recommended that EDNM sign off only occur where they can be assured that the model of care proposed meets minimal clinical requirements for activity and safety.
- Outcomes of BPF Service Profile negotiations should be fed back to work units to ensure adjustments can be made to the model of care where the original model of care is not funded or escalated as per table 1.
- All approved BPF Service Profiles (consisting of modules 1 and 2) must be tabled at the NaMCF, with a copy provided to the QNMU.
- Further details about the process for development, negotiation and sign off process can be found in Table 1.

Overview of the BPF modules

A complete BPF Service Profile consists of both module 1 and module 2. The implemented BPF Service profile is then evaluated in accordance with module 3. A brief overview of each module is provided below.

A number of BPF Addenda have been developed and published to support the development of BPFs for particular service contexts (see Appendix 1).

MODULE 1: DEVELOPMENT OF A SERVICE PROFILE

The development of a service profile is the systematic process for analysing services to determine the supply of nursing and midwifery resources required to meet service demand for the next financial year, and/or where changes to service delivery occur throughout the financial year.

Module 1 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

MODULE 2: RESOURCE ALLOCATION

Module 2 (Resource Allocation) outlines the process of planning the service's nursing and midwifery resources (supply) to meet planned service demand. It is determined based on the information contained in module 1.

This stage requires the calculation of the nursing and midwifery hours needed to provide safe consumer care and converts those hours into the appropriate full-time equivalents (FTE). FTE are then converted into dollars in partnership with the business/finance team. Quantitative methods, in tandem with professional judgement, knowledge and experience, are used to prioritise the allocation/rostering of nursing and midwifery resources as agreed in the approved BPF Service Profile (comprising modules 1 and 2).

It is important to note that the Award recognises that professional judgement is a valid method of determining a safe staffing level for nursing and midwifery.

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

1. Calculate total annual productive nursing/midwifery hours 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, as relevant
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

MODULE 3: EVALUATION OF PERFORMANCE

Evaluating the performance of the BPF Service Profile is undertaken once the agreed BPF Service Profile (incorporating modules 1 and 2) is implemented. Evaluating performance is achieved through the continual process of assessing the overall effectiveness, efficiency, safety and quality outcomes of the allocation of nursing and midwifery resources. This may be accomplished through the use of local service performance scorecards or other reporting tools which are regularly reviewed (e.g. monthly, quarterly, or as required).

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 safe 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 Table 1.

To be compliant with the BPF, the relevant industrial instruments and the Standard, the service must meet the following minimum requirements:

- Approved BPF Service Profiles (comprising modules 1 and 2) are tabled at the NaMCF annually.
- There is an agreed negotiation process to facilitate organisational agreement on the BPF Service Profile, including nursing and midwifery resource allocation (see Table 1).
- There is an agreed and approved BPF Service Profile completed/reviewed at least annually, which is available for all ward/unit/service 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. (see Appendix 5)
- Each HHS will report nursing and midwifery workload management performance in accordance with the framework 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, aligned to national clinical and safety standards for health services, and be documented within HHS service agreements.
- Each HHS has a BPF Steering Committee that is a source of expertise and support for the effective implementation of the BPF. The steering committees are established in accordance with the agreed terms of reference (see Appendix 8).

TABLE 1: BPF GOVERNANCE AND NEGOTIATION PROCESS

BPF SERVICE PROFILE DEVELOPMENT

» Assessment, planning and preparation of the BPF Service Profile is done by the NUM/MUM (or other equivalent accountable officer) in consultation with the nurses and midwives from the clinical service and other relevant stakeholders.

BPF SERVICE PROFILE BUDGET WORKUP

» NUM/MUM (or equivalent accountable officer) reviews the proposed BPF Service Profile and budget with the Business Manager (or equivalent accountable officer).

BPF SERVICE PROFILE NEGOTIATIONS

» NUM/MUM and Business Manager (or equivalent accountable officers) seek endorsement of the proposed BPF Service Profile by the Nursing/Midwifery Director and Director of the Service (or equivalent accountable officers).

» Executive Director of Nursing and Midwifery (EDNM) and the Chief Finance Officer (or equivalent accountable officers) provide approval for agreed BPF Service Profile.

» If approval is not provided, negotiations commence at the service level using an interest-based approach (refer to Appendix 2). Nursing/Midwifery Director and Executive Director (or relevant accountable officers) undertake the negotiations with the relevant financial delegate, in consultation with NUM/MUM and Business Manager (or equivalent accountable officers) until agreement is reached.

» Where the Chief Finance Officer (or equivalent accountable officer) declines funding for the nursing/midwifery FTE recommended by the NUM/MUM or other nursing/midwifery leader for a ward or unit, the BPF Steering Committee acts as the body which provides advice and expertise and may make recommendations on the balance between the service model and the funded nursing and midwifery positions. In such circumstances, a meeting of the Committee is to be convened as required. The Committee provides advice and recommendations to inform the decision-making of the Chief Executive and the Hospital and Health Board via the Executive Director of Nursing and Midwifery. Further information regarding the role of the BPF Steering Committee and the referral process can be found in Appendix 8.

» Outcomes of negotiations should be recorded and fed back to work units, to ensure adjustments can be made to the model of care as appropriate.

» Once agreement is reached, the EDNM (or delegated accountable officer) provides endorsement of the final draft Service Profile to certify that the BPF for the service is providing safe, appropriate resourcing.

» All finalised endorsed BPF Service Profiles (comprising modules 1 and 2) are tabled at the NaMCF, with a copy provided to the QNMU.

BPF SERVICE PROFILE EVALUATION

» NUM/MUM (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 NaMCFs 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.

Module 1

Guide for the development of a service profile

Developing a service profile is a process for examining a service and the environment in which it operates to identify the supply of nursing and midwifery resources required to meet demand.

THIS MODULE DESCRIBES THE ROLE AND FUNCTION OF THE SERVICE BY:

- **Stating the aim of the service**
- **Defining the objectives of the service**
- **Describing the service**
- **Systematically analysing the internal and external environment**
- **Completing a strengths, weaknesses, opportunities and threats (SWOT) analysis**

Prompts and practical examples are provided in this guide to assist in customising the BPF Service Profile to a particular ward/unit/service.

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 HHS strategic plan and/or Service Agreement. 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 meets the required outcomes of the Service Agreement.

EXAMPLE

To deliver safe and responsive mental health inpatient care to adults through the provision of tertiary (CSCF Level 6) services that are sustainable, effective and efficient to achieve health in a recovery orientated model of care

DEVELOPING OBJECTIVES

Objectives are statements that clearly identify the key outputs/measures that a service is aiming to achieve. Objectives also provide the framework for assessing performance. The objectives should align with the goals outlined in the HHS strategic plan and support meeting the desired outcomes of the Service Agreement. When developing service objectives, it is important to also reflect on any new activities or programs that may need to be included in the service going forward, while also considering the impact of past achievements and any partial or non-achievements. Objectives can be framed to reflect both short and long-term goals for the ward/unit/service.

To assist in developing objectives a framework should be applied (e.g. using the SMART acronym):

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

CONSUMER EXAMPLE

To achieve a 10% reduction in the use of consumer restraint and seclusion over a 12-month period by aligning with organisational policy, providing staff education and training programs and monitoring use in the monthly reporting schedule.

STAFF EXAMPLE

Staff training compliance to be increased to 100% to meet legislative and policy requirements by the end of the financial year.

ORGANISATIONAL EXAMPLE

Review and update all policies, procedures and guidelines relevant to the clinical management of patients/consumers receiving health services by the end of financial year.

DESCRIBING THE SERVICE

This section broadly describes a service, or a planned service. Describing the service provides context for identifying the demand when building a Service Profile. Considerations for describing the ward/unit/service include:

- The location of service delivery
- The type of current/planned service
- The model/s of care
- Access to health services

The description of the service should be dynamic and take into consideration any changes (for instance to staffing or models of care) to the service throughout the year. Any changes should be clearly identified in the document and taken to the NaMCF for consultation and advice.

LOCATION OF SERVICE DELIVERY

This section refers to the geographical location where the service/s are delivered:

PROMPTS

- Where is the service located? (e.g. metropolitan, regional, rural, remote)
- Is the service located in a community setting?
- Is the service a hub and spoke model? If so, where are the services delivered?

TYPE OF CURRENT/PLANNED SERVICE

This section provides a high-level summary of the service:

PROMPTS

- What is the population/consumer cohort that the health service is provided for?
- Is it a specialty service? (e.g. Prison Mental Health service, Heart Failure service etc)
- What is the type of service delivery? (e.g. inpatient, outpatient, community outreach etc)
- What is the Clinical Services Capability Framework (CSCF) level of the service?
- Describe the structure of the local service and the multidisciplinary teams involved in service delivery.

MODEL OF CARE

This section broadly defines the way health services are delivered at the local level:

PROMPTS

- What is the model/s of care applied in the service?
- Is this a nurse-led/midwifery-led model of care?
- 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?
- What is the consumer's journey through the model of care?
- Has the model of care been designed in partnership with Aboriginal and Torres Strait Islander people?

ACCESS TO HEALTH SERVICES

This section describes the health services accessible to your service and their level of capability (which may be determined by the CSCF).

PROMPTS

- How does the accessibility and capability of local services impact on the nursing/ midwifery resources within the service?
- Is the service the referral site for the HHS or the State? (e.g. statewide burns unit)
- Where is the closest referral centre for the service?
- Are there aged care services in the community to refer the consumer to?
- Does the consumer have General Practitioner access within the community for ongoing management?
- Are there service gaps or duplication?
- What are the operating hours for the service?

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. This analysis enables the service to build a BPF Service Profile that anticipates change and incorporates influencing factors such as historical trends and future needs. Note, when there is a significant change (e.g. closure of other services/opening of new service), then the BPF Service Profile requires review.

Environmental factors may be internal or external. These factors include those outlined in the table below.

ENVIRONMENTAL FACTORS

EXTERNAL	INTERNAL
POLICY/LEGAL **ECONOMIC** **SOCIAL** **TECHNOLOGY** **ENVIRONMENT** **RESEARCH/EVIDENCE-BASED PRACTICE**	**PHYSICAL STRUCTURE** **ORGANISATIONAL GOVERNANCE** **INFORMATION TECHNOLOGY AND MANAGEMENT** **PERFORMANCE** » **Consumer** » Activity / complexity / dependency » Safety and quality » **Staff** » Core staff profile » Productive and non-productive nursing/midwifery hours » Professional development, training and education » Safety and quality » **Organisation** » Organisational culture » Service Agreement and Key Performance Indicators » Service safety and quality » Financial outcomes **BENCHMARKING** **COMPARATIVE ANALYSIS** **FORECASTING**

EXTERNAL ENVIRONMENTAL ANALYSIS

The external environment consists of conditions and forces that are usually beyond the control of the service. By analysing the external environmental factors, the service is able to build a sustainable BPF Service Profile that maximises available opportunities, whilst risk mitigating threats.

THE FOLLOWING EXTERNAL ENVIRONMENTAL FACTORS ARE PROVIDED AS A GUIDE

Policy/legal	Social	Environment
Economic	Technology	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.

PROMPTS *

- What are the legislative requirements for operating the service that impact on service delivery and/or nursing/midwifery resource requirements?
- What are the health policy requirements for operating the service? (e.g. workforce requirements in the CSCF)
- What are the national registration requirements for operating the service?
- What are the professional standards and industrial requirements for operating the service? E.g. is it a ward where legislated nurse to patient ratios apply?
- How do the legislative, policy, registration, professional standards and industrial requirements impact nursing/midwifery resources in the service?

ECONOMIC FACTORS

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

PROMPTS *

- What is the funding stream/type for the service? (e.g. Activity Based Funding or block funding)
- 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?
- Does the cost of electricity/water/other supplies/non-labour affect the operating budget allocation for the services?

NOTE: These prompts are intended to provide guidance, not all points may be relevant or appropriate for a particular service

SOCIAL FACTORS

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

PROMPTS *

- What are the demographics of the population influencing health care needs within the service's catchment area? (e.g. social determinants of health such as unemployment rates, ageing population, highest level of schooling, refugee population, significant population growth or decline, homelessness rates, crime rates, internet access, persons with a disability, the Index of Relative Socio-Economic Disadvantage, tourist population growth) (see Queensland Government Statisticians Office Regional Profiles)
- Is there a high level of cultural diversity influencing health care needs within the catchment area? (e.g. Aboriginal and Torres Strait Islander people's population)
- What is the community's expectation of the health service?

TECHNOLOGY FACTORS

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

PROMPTS *

- What are the external technological requirements for operating the service? (e.g. NBN access, 4G mobile coverage)
- Are these technological requirements being met?
- How do/will these technological factors impact nursing/midwifery resources?

ENVIRONMENT FACTORS

Describe the impact of ecological and environmental aspects such as weather, climate, geographical location, waste disposal and recycling procedures and climate change impacts.

PROMPTS *

- What are the weather considerations that impact the region? (e.g. cyclones, drought, flooding, tropical climate which affects disease prevalence in the community, seasonal trends)
- What are the waste disposal and recycling practices, and do they impact on nursing/midwifery resource requirements? (e.g. is recycling available in the region, clinical waste management, recycling projects)

RESEARCH AND EVIDENCE-BASED PRACTICE

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

PROMPTS *

- 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?

NOTE: These prompts are intended to provide guidance, not all points may be relevant or appropriate for a particular ward/unit/service

INTERNAL ENVIRONMENTAL ANALYSIS

Internal environmental factors are those that a service can potentially influence. The data generated by conducting an internal analysis is essential to inform a BPF Service Profile which accurately describes the demand for service delivery.

THE FOLLOWING INTERNAL ENVIRONMENTAL FACTORS ARE PROVIDED AS A GUIDE

PHYSICAL STRUCTURE	ORGANISATIONAL GOVERNANCE	INFORMATION TECHNOLOGY AND MANAGEMENT

PERFORMANCE

Consumer Benchmarking	Staff Comparative analysis	Organisation Forecasting

PHYSICAL STRUCTURE

Describe the physical environment in which the service exists

PROMPTS

- How many beds are there? (e.g. the total number of beds, single rooms, isolation rooms, negative pressure rooms, shared bays etc)
- How many clinic rooms are available for service delivery?
- What is the distance from the service to support services? (e.g. distance to radiology department)
- How many office spaces are there for staff?
- How many QFleet vehicles are used to deliver the service?

ORGANISATIONAL GOVERNANCE

Describe the governance structure and accountability framework for the organisation.

PROMPTS

- What is the governance and operational structure of the organisation? (Refer to HHS/facility/service line's strategic/operational plans for the organisational structure)
- Who are the accountable officers for service delivery in your service? (e.g. NUM, Director etc)
- What are the roles and responsibilities of these accountable officers?
- Are the governance processes for nursing and midwifery appropriate and effective in your service?

INFORMATION TECHNOLOGY

Describe the management and clinical information technology systems available to nursing/ midwifery services and how data is collected, used and processed into information to support nurses/midwives in the delivery of safe, high quality health services.

PROMPTS

- What information technology systems are available to nursing/midwifery in the service?
- Is there access to the necessary information technology systems required to operate the service? (e.g. ieMR, CIMHA, Communicare etc)
- 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 and what impact will this have on nursing/midwifery resources?
- What new information technology systems have been implemented in the service within the last 12 months?
- Have there been any impacts from the introduction of new information technology systems in the service and if so please describe them particularly with reference to impact on staff and patients/consumers?
- How many devices are used in the service? (e.g. number of mobile phones, tablets, laptops etc)
- How many times were there system downtimes in the last year and what was the impact on resourcing requirements?
- How proficient are the nursing/midwifery staff in using the systems?

PERFORMANCE

Analyse the previous performance of the service, enabling the identification of the anticipated demand for the service for the coming financial year. Performance has been grouped into the three principles of the BPF, namely: consumer, staff and organisational measures. The below information is provided as a guide.

Consumer performance

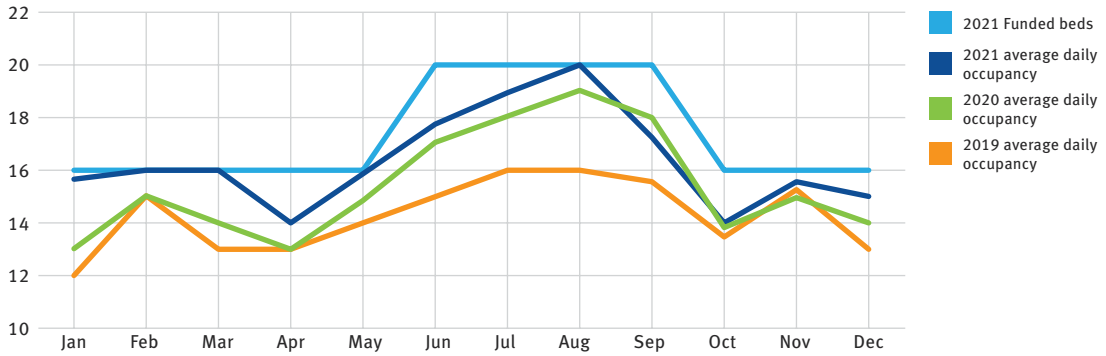
» Consumer activity

Describe the amount, trends and type of activity delivered to consumers within the service.

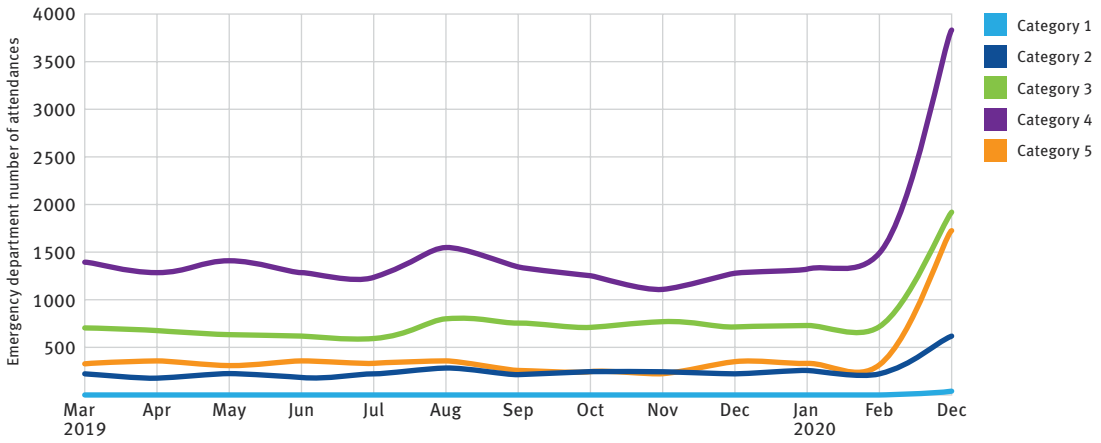
PROMPTS

- What was the actual patient/consumer activity for the previous service profile period and the preceding years?
- How has the actual patient/consumer activity for the previous service profile period impacted on staffing?
- What was the agreed patient/consumer activity level as per the Service Agreement?
- What were the trends in patient/consumer activity within the service during the previous service profile period and previous years?
- When analysing the actual patient/consumer activity in comparison with the agreed patient/consumer activity level, were there enough nurses/midwives to meet demand?
- What is the forecast or projected activity for the coming year and how does that compare to previous years activity?
- Are there any planned or projected increases to patient/consumer activity?
- What is the wait list for the service? How many long waits are there?
- How many single and multiple births where there in the last year? How does that compare to previous years?
- How many home visits were conducted in the last year? Has this increased or decreased since previous years?
- Are there seasonal variances that result in peak activity at certain times of year? (e.g. flu season, tourism, major events)

EXAMPLE OF HOW TO PRESENT PATIENT ACTIVITY INFORMATION



EXAMPLE OF HOW TO PRESENT EMERGENCY DEPARTMENT ACTIVITY INFORMATION



Consumer dependency/complexity

Describe the acuity and intensity of care required for consumers in the service.

When developing the BPF Service Profile, a review of past patient/consumer complexity in conjunction with the number and type of nursing resources required should be undertaken. A patient/consumer dependency system can act as an important information source for patient acuity if one is available.

EXAMPLE OF HOW TO PRESENT CONSUMER COMPLEXITY FOR A MATERNITY SERVICE

Top 10 drg historical trends for the service (by separations)			
RANK	**2018/19**	**2019/20**	**2020/21**
1	P68D NEONATE, ADMWT >=2500G W/	P68D NEONATE, ADMWT >=250G W/	P68D NEONATE, ADMWT >=250G W/
2	O66B ANTENATAL AND OTHER OBSTE	O60B VAGINAL DELIVERY, INTERME	O60B VAGINAL DELIVERY, INTERME
3	O60B VAGINAL DELIVERY, INTERME	O66B ANTENATAL AND OTHER OBSTE	O66B ANTENATAL AND OTHER OBSTE
4	O66A ANTENATAL AND OTHER OBSTE	O66A ANTENATAL AND OTHER OBSTE	O66A ANTENATAL AND OTHER OBSTE
5	O60C VAGINAL DELIVERY, MINOR C	O60C VAGINAL DELIVERY, MINOR C	O60C VAGINAL DELIVERY, MINOR C
6	O60A VAGINAL DELIVERY, MAJOR C	O60A VAGINAL DELIVERY, MAJOR C	O60A VAGINAL DELIVERY, MAJOR C
7	O01B CAESAREAN DELIVERY, INTER	O01B CAESAREAN DELIVERY, INTER	O01B CAESAREAN DELIVERY, INTER
8	P68C NEONATE, ADMWT >=2500G W/	O10C CAESAREAN DELIVERY, MINOR	O05Z NEONATE, ADMWT >=250G W/
9	O05Z NEONATE, ADMWT >=250G W/	P68C NEONATE, ADMWT >=250G W/	P68C NEONATE, ADMWT >=250G W/
10	O01C CAESAREAN DELIVERY, MINOR	O05Z NEONATE, ADMWT >=250G W/	O10C CAESAREAN DELIVERY, MINOR

Safety and quality

Describe the performance outcomes achieved by the service in relation to the agreed safety and quality framework. There are several ways to measure safety and quality of consumer care. The method/s used for a particular service will need to align with professional, organisational and national safety and quality standards.

PROMPTS

- What safety and quality measures are currently in place for consumers?
- Were there any significant variances in safety and quality outcomes for consumers?
- What is the consumer feedback (compliments/complaints)?
- What are the Patient Reported Outcome Measures (PROMs) and Patient Reported Experience Measures (PREMs) for the service?
- What are the reported RiskMans and Severity Assessment Code (SAC) ratings?
- What are the consumer outcomes in relation to the National Safety and Quality Health Service Standards?

EXAMPLE OF HOW TO PRESENT CONSUMER SAFETY AND QUALITY INFORMATION

Falls - Reported clinical incidents				
	STATEWIDE STATUS	ACTUAL	PY ACTUAL	STATEWIDE AVERAGE
TOTAL REPORTED FALLS PER 100 ACCRUED PATIENT DAYS		1.79	2.27	3.21
TOTAL REPORTED INJURY FALLS PER 1000 ACCRUED PATIENT DAYS		1.06	1.18	1.77
REPORTED ASSISTED FALLS WITH INJURY PER 1000 ACCRUED PATIENT DAYS		0.32	0.10	0.22
REPORTED FALLS (SAC 1) PER 1000 ACCRUED PATIENT DAYS		0.00	0.00	0.00
REPORTED FALLS (SAC 2) PER 1000 ACCRUED PATIENT DAYS		0.00	0.20	0.21
REPORTED FALLS (SAC3) PER 1000 ACCRUED PATIENT DAYS		1.79	2.07	3.00
REPORTED REPEAT FALLS PER 1000 ACCRUED PATIENT DAYS		0.32	0.49	1.02
% OF REPORTED FALLS WITH COMPLETED RISK ASSESSMENT		94.12	91.30	94.64
Pressure injuries - reported clinical incidents				
	STATEWIDE STATUS	ACTUAL	PY ACTUAL	STATEWIDE AVERAGE
TOTAL REPORTED HOSPITAL ACQUIRED PRESSURE INJURIES PER 1000 ACCRUED PATIENT DAYS		0.53	0.69	1.20
REPORTED HOSPITAL ACQUIRED PRESSURE INJURIES - STAGE 1 PER 1000 ACCRUED PATIENT DAYS		0.32	0.20	0.39
REPORTED HOSPITAL ACQUIRED PRESSURE INJURIES - STAGE 2 PER 1000 ACCRUED PATIENT DAYS		0.11	0.49	0.68

EXAMPLE CONSUMER PERFORMANCE MEASURES

- Average Nursing/Midwifery Hours per Patient Day (N/MHpPD) (refer to Appendix 3 for formulas)
- Average Nursing/Midwifery Hours per Occasion of Service (N/MHPOS) (refer to Appendix 3 for formulas)
- Number of separations
- Weighted Activity Units
- Total occupied bed days
- Accrued bed days
- Day of week and shift occupancy trends (demand variance)
- Average occupancy
- Average length of stay
- Number of 'specials'
- Re-admission rates
- Number of retrievals
- Back-transfers
- Number of outliers
- Discharge Against Medical Advice rates
- Occasions of service
- Tier 2 Clinic codes
- New vs review outpatient appointments
- Patient/consumer follow ups
- Emergency Department presentations vs admissions
- Emergency Department Numbers per triage category
- Presentations / admissions / discharges by time of day
- Number of patients/consumers who Left After Treatment Commenced or Did Not Wait
- Number of operating theatre sessions/ complexity
- Operating minutes
- Number of day surgery cases
- Number of units of activity in Central Sterilising Departments
- Home visits occasions of service
- Number of births
- Number of births: vaginal/ caesarean
- Number of group sessions, numbers of attendees at group sessions
- Number of walk-in clinics
- % of SNAP patients
- Adverse events (e.g.) number and severity of adverse incidents (RiskMans and SAC ratings, falls prevention, infection rates)
- ICD/DRG codes for the service
- Completed discharge summaries
- Consumer satisfaction, PREMs, PROMs
- Variance in care plan

Staff performance

Core staff profile

Describe the primary roles, functions and responsibilities/accountabilities of staff directly and indirectly employed to work in the service. Reviewing the core staff profile performance includes considering the utilisation of Full Time Equivalents (FTE) and other workforce indicators.

PROMPTS

- Identify if there are other roles or professions that impact on nursing/midwifery in the service (e.g. multidisciplinary teams)? If so, what are the roles and how do they impact?
- Describe or replicate the organisational structure for nursing/midwifery services.
- What are the functions of the core nursing/midwifery staff in the service?
- How many staff are practising at the following levels and how does this affect service delivery? (e.g. novice, advanced beginner, competent, proficient, expert)
- What are the workforce demographics? (E.g. age profile (retirement risk), permanent/temporary/casual staff rates, secondment/higher duties/acting rates, external FTE utilisation, length of service with Queensland Health).

Professional development, training and education

Describe the professional development, training and education needs for nurses and midwives within a service.

PROMPTS

- Consider what frameworks and resources are in place to support General Orientation, Induction and Mandatory Training?
- Consider if new and existing staff complete their Mandatory Training in line with HHS targets? If not, what are the barriers to achieving this?
- Provide a list of the Unit Specific Training and discuss what frameworks and resources are in place to support this training? (e.g. ACORN requirements, ICU/ED/Mental Health College requirements)
- Is the use of professional development leave encouraged and facilitated and what is the uptake for nurses/midwives in the service? Review the professional development utilisation in the service (with consideration of the relevant industrial instruments).
- How is time allocated to facilitate attendance at requisite and other training?
- What resources are required to fulfill assessment/teaching commitments for undergraduate and post-graduate clinical placements from universities and registered training organisations?
- Is there any change planned/expected in the types of patients/consumers the service is providing care for and if so what training and education will be required for staff to meet the needs of this change?
- What is the succession management plan for positions in the service? What period of time in the coming year is this going to have the most impact?
- Can staff access opportunities to realise their potential and contribute to service development and organisational outcomes?

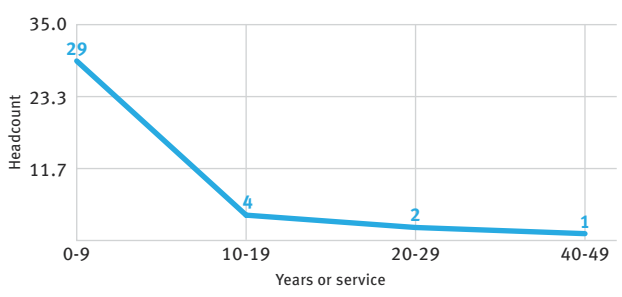
Patient/consumer safety and quality care

Describe the performance outcomes achieved by the service in relation to the agreed staff safety and quality measures. The method/s used for a particular service will need to align with professional, organisational and the national safety and quality standards.

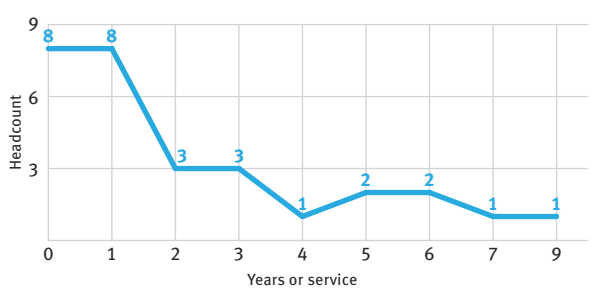
PROMPTS

- What are the CSCF requirements for nursing and midwifery staffing in the service? Are these being met or exceeded?
- What safety and quality measures are currently in place for staff?
- What are the Nurse Sensitive Indicator (NSI) rates or Midwifery/Maternity Sensitive Indicator rates for the service (e.g. falls, pressure injuries)? Consider and analyse this in comparison with the NSI rates for the previous 12 months.
- What are the professional standards for staffing for the service? (e.g. college/specialty standards)
- What are the quality portfolios and improvement activities conducted by nurses/midwives in the service? What time is spent on these activities by staff?
- What is the audit compliance rate for the service?
- What activities /portfolios do staff undertake in relation to the National Safety and Quality Health Service Standards?

YEARS OF SERVICE (ALL)



YEARS OF SERVICE (0-9)



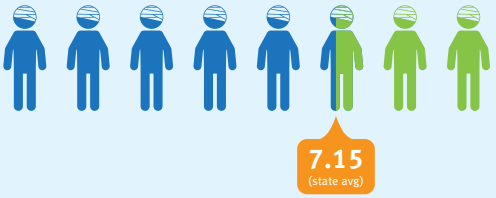
EXAMPLE STAFF PERFORMANCE MEASURES

- Absenteeism
- Sick leave rates
- Staff turnover
- External/agency staff utilisation
- Unscheduled leave
- Number of student placement days/hours
- Quality portfolio activities/hours
- Workforce age profile
- Maternity leave rates
- Staff length of service
- Recruitment and attrition rates
- Compliance with mandatory and requisite training
- New staff to existing staff ratio
- Professional development hours utilised
- Redeployment
- Service staff satisfaction survey results
- WorkCover claims
- Numbers and themes of workload concerns
- Nurse Sensitive Indicator rates or Midwifery/ Maternity Sensitive Indicator rates
- Hand hygiene rates
- Audit compliance rates
- Workforce Diversity and Inclusion Strategy Targets
- Leave overbalance (annual leave, Accrued Day Off [ADO]/Rostered Day Off [RDO])
- Overtime
- Recalls
- QH FTE vs approved/budgeted FTE vs recruitable FTE

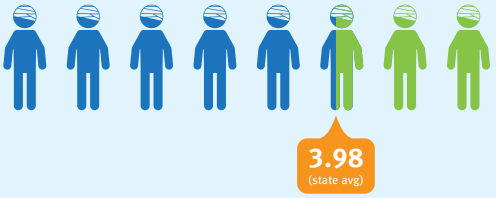
STANDARD 5 COMPREHENSIVE CARE

Preventing falls and harm from falls

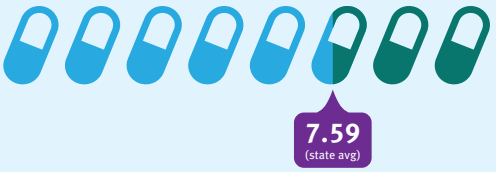
TOTAL REPORTED FALLS *



TOTAL REPORTED INJURY FALLS *



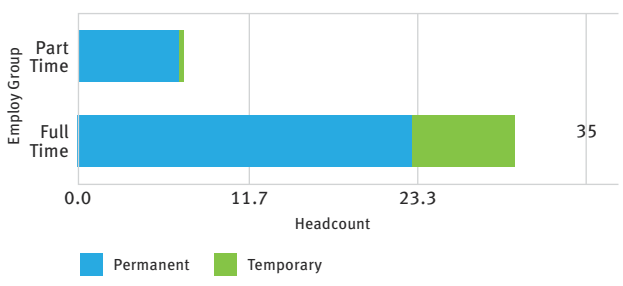
TOTAL REPORTED MEDICATION ADMINISTRATION INCIDENTS *



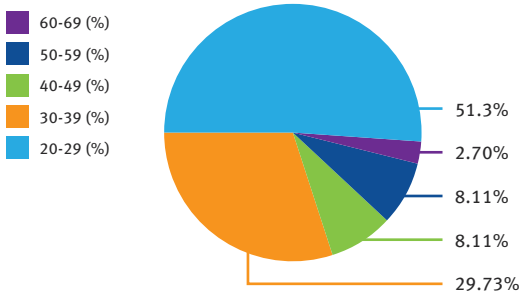
REPORTED MEDICATION ADMINISTRATION INCIDENTS WITH INJURY *

* per 1000 accrued patient days

STAFFING PROFILE



WORKFORCE AGE PROFILE (%)



Organisation performance

Organisational culture

Describe the way staff relate to each other and their level of engagement and participation in organisational processes.

PROMPTS

- 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 consumer care?
- Are there opportunities for nursing/midwifery staff to realise their potential and contribute to consumer/service outcomes?
- Are there recruitment and retention strategies in place to underpin the development and sustainability of the nursing/midwifery service?
- Is there evidence of structural empowerment and shared governance for nurses and midwives?
- What are the results of patient/consumer satisfaction surveys at the service level?
- What are the results of staff satisfaction and engagement surveys at the organisational level?

Service Agreement and Key Performance Indicators

There is a service agreement in place between the Department of Health (DoH) and each HHS for the provision of public health services.

The service agreement defines the health services, teaching, research and other services that are to be provided by the HHS and the funding to be provided to the HHS for the delivery of these services. It also defines the outcomes (key performance indicators (KPIs)) that are to be met by the HHS and how its performance will be measured.

PROMPTS

- What is the ward/unit/service performance against the relevant HHS Service Agreement KPIs?

Safety and quality

Describe the performance outcomes achieved by the service in relation to the agreed organisational safety and quality measures. The method/s used for a particular service will need to align with professional, organisational and the national safety and quality standards.

PROMPTS

- What are the outcomes for the service and organisation in relation to the National Safety and Quality Health Service Standards?
- Is the organisation coming up to an accreditation review or renewal process in the coming year and what affect will this have on the service?

Financial outcomes

Describe the financial outcomes achieved by the service in relation to the agreed BPF Service Profile objectives.

EXAMPLE ORGANISATION PERFORMANCE MEASURES

- Labour budget variance (positive and negative variances)
- Compliance with legislated minimum nurse/midwife ratios and skill mix profile
- Compliance with policies and legislation

- Safety and quality frameworks and accreditation
- Ward/unit/service performance against HHS Service Agreement KPIs (e.g. Emergency Department Length of Stay, Elective Surgery Seen In Time, Hospital Acquired Complications, Rate of seclusion events, Telehealth utilisation rates etc)
- Nursing/midwifery hours and cost per activity unit
- Workforce management

PROMPTS

- What financial measures or targets 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 consumer, staff or the organisation?
- Was there a budget variance (positive or negative) for nursing/midwifery labour costs within the service? (E.g. a variance analysis conducted to explain differences between the planned nursing/midwifery hours and the actual nursing/midwifery hours used within the rostered period, or the actual expenditure against the forecast expenditure for the month).

Comparative analysis and benchmarking

Internal and external comparisons are necessary to effectively evaluate the performance of a nursing/midwifery service. Comparative analysis can be undertaken at any determined timeframe (e.g. previous month, financial quarter, year) and can include trends over a longer timeframe (e.g. over a period of three or more years).

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

Benchmarking is a type of comparative analysis that provides a snapshot of a service's actual performance in relation to performance and internal trends within the unit/ward/service in previous years. The benchmarking process can be 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.

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 (Module 2).

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, and if the anticipated activity demand will be different in the coming financial year.

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 projections
- 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 Service Agreement).

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.

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 the nursing/midwifery staff providing the service. Once these are articulated, strategies should be developed in consultation with the ward/unit/service staff to identify what support may be needed to address opportunities, weaknesses and threats.

The SWOT analysis provides the opportunity **to articulate a high-level summary of the internal and external analysis conducted throughout the development of module 1 of the BPF service profile.**

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 (including skills mix) may need to be adjusted to achieve improvements in service effectiveness and efficiency.

A SWOT analysis can assist in developing changes in the model of care, changes to the skills mix and determining the priorities for the ward/unit/service.

- **Strengths** are internal characteristics of a ward/unit/service that contribute to the safe delivery of quality service or care.
- **Weaknesses** are internal characteristics that may require improvement or inflate risks to the delivery of safe, quality service or care.
- **Opportunities** are external elements that a service area could use to its advantage in delivering safe, quality care or service.
- **Threats** are external elements that could cause challenges or difficulties for a ward/unit/service

For example, a SWOT analysis can assist a service in deciding how to prioritise resources to:

- Take advantage of new opportunities
- Respond to new trends
- Implement new technology
- Effectively deal with changes.

TABLE 3: SWOT ANALYSIS EXAMPLE

STRENGTHS (INTERNAL)	WEAKNESSES (INTERNAL)
» 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	» Inadequate BPF Service Profile 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 limits the ability to expand the service in line with demand
OPPORTUNITIES (EXTERNAL)	**THREATS (EXTERNAL)**
» National health reform » University affiliations » External research grants » External funding » Collaborative programs with more primary and private services » Collaboration with Primary Health Networks	» Unstable global economy » National health reform » Funding arrangements » Levels of health literacy in the local community » Nursing/midwifery supply » Pandemics » Extreme weather events » Seasonal population variances

SUMMARY

When developing Module 1, the following has been considered to establish the service demand:

The agreed service profile is considered the primary source of information regarding required nursing and midwifery resource allocation.

Historical service-based analysis of nursing and midwifery resources used in previous periods.

Analysis of consumer activity/acuity trends and other environmental factors that have impacted nursing and midwifery services.

Forecasting of future consumer activity/acuity trends and other environmental factors that will impact nursing and midwifery services.

Comparative analysis and benchmarking the service with similar nursing and midwifery services and/or applying the relevant evidence.

Consultation with nursing and midwifery staff delivering the service.

Module 2

Guide to completing resource allocation

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

It is important to note that it is recognised in the nursing and midwifery industrial instruments that professional judgement is a valid method of determining a definitive staffing level of nurses and/or midwives as being safe. Consultation with the nursing and midwifery staff providing the service is essential when developing the annual labour budget for nurses and midwives.

ESTABLISHING NURSING AND MIDWIFERY HOURS TO MEET SERVICE REQUIREMENTS

Once the demands of the service have been determined by completing Module 1, it is necessary to establish the supply of nursing/midwifery hours required to meet the service demand. That is, the supply of nurses and midwives are calculated so that they meet the demands of the service.

The annual labour budget is the financial aspect of the BPF Service Profile. It is the total of the productive and non-productive nursing/midwifery hours that are calculated and converted to the required FTEs and associated costs. It Is important that the development of the annual labour budget is determined in partnership with the business/finance team.

Within each defined nursing/midwifery service, consultation with nurses and midwives providing the service is essential when developing the annual labour budget. Qualitative and quantitative evidence set out in module 1 supports informed decision making when analysing resource requirements in module 2.

Defining productive and non-productive nursing/ midwifery hours

- Productive and non-productive nursing/midwifery hours are defined as follows: Productive nursing and/or midwifery hours contribute to consumer care and include both direct and indirect hours.
  - Direct hours are the hours spent in activities that nurses and/or midwives perform directly related to clinical care.
  - Indirect hours are the hours spent in activities that support clinical care.
- 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 hours.

Productive (including direct and indirect) and non-productive nursing/midwifery care hours should be reviewed when developing the service's BPF Service Profile. Examples of productive and non-productive hours are provided in Table 2.

SUPPLY AND DEMAND

The following steps outline the process to calculate the productive and non-productive nursing and midwifery hours required, and to convert those hours into FTE:

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

TABLE 2: EXAMPLES OF PRODUCTIVE AND NON-PRODUCTIVE NURSING/MIDWIFERY HOURS

PRODUCTIVE

DIRECT

- Clinical handover
- Talking to relatives, consumers and doctors about consumer issues
- Home visits
- Medication administration/supply
- Consumer care documentation
- Consumer/carer education
- Patient escorts, transfers and retrievals including time spent supervising the patient/consumer in other departments (e.g. radiology/recovery)
- Telephone consultations and follow-up with consumers/ carers
- Nursing/midwifery care provided to patients/consumers who are not inpatients - patients/consumers may be observed or assessed but not treated or admitted
- Antenatal classes or clinics
- In-charge/shift coordinator
- Discharge planning
- Organising patient transfers/procedures/ tests
- Review/adjustment of workload allocation by the senior RN/RM in charge of the shift
- All nursing hours provided by the ward to attend medical emergencies in other wards
- Nursing hours used to monitor/record observations for patients/consumers on remote telemetry
- Clinical procedures, including recovery
- Doctors'/multidisciplinary team rounds
- Organising and attending ward rounds
- Outpatient treatment - e.g. wound dressings, removal of sutures, drains, catheters, blood sampling
- Clinical skills assessment activities (with consumer)

INDIRECT

- Travel time relating to consumer care
- Staff mentorship
- Human resource management activities (e.g. recruitment, AVACs)
- Restocking with essential supplies
- Supernumerary time and ongoing support and supervision of staff
- Education and training on the clinical unit (e.g. in-services)
- Attendance at staff meetings
- Hours required to support undergraduate programs/ students
- Assessing clinical skills (assessor)
- Research and practice development activities
- Nursing/midwifery hours on special projects
- Portfolio activities
- Career success planning activities, managing performance issues
- Staff orientation to the work area
- Work Cover (if being paid as part of workforce on a 'return to work program' and not delivering consumer cares)
- Clinical skills assessment activities (without consumer)
- Organising, reviewing and updating clinical policies and procedures
- Rostering activities
- Developing and monitoring budgets
- Writing reports and submissions
- Ward management discussions with reporting or reviewing officers
- Investigating complaints
- Organising and attending meetings
- Quality improvement projects and meetings

NON-PRODUCTIVE

- Annual leave
- Mandatory/requisite training
- Bereavement leave
- Conference leave
- Long service leave
- Professional development leave
- Personal leave
- Special leave (e.g. pandemic, flood etc)
- Parental leave
- Travel time associated with conference leave
- WorkCover (if not being paid as part of workforce on a 'return to work program' and not delivering consumer cares)

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

When calculating total annual productive nursing/midwifery hours, the environmental analysis within the service profile (Module 1) must be considered to ensure appropriate staffing levels are identified within the operating environment of the service. This calculation of the annual productive nursing/midwifery hours to deliver the service is generally achieved through the development of a roster construct.

PROMPTS

- Is the activity demand expected to increase in the coming year?
- Are there changes in activity trends that should be captured in the roster construct? (e.g. are evening shifts busier than day shifts (time of day), does service activity reduce over the weekend (day of week), are there activity demand increases during winter periods (seasonal variation), service closures during public holidays/ Christmas-New Years' etc.)
- Do minimum safe staffing models apply to the service? (Refer to the glossary for further information)
- Does legislation regarding minimum Daily Residential Care Hours apply to the service? (i.e. Queensland Health Residential Aged Care Facilities)
- Does minimum nurse-to-patient ratio legislation apply to the service?
- Is there a short-term project position in the service to be considered?

PRODUCTIVE HOURS

Productive hours are made up of both direct and indirect nursing/midwifery hours. They should be determined with reference to the following factors, which have been identified and described in Module 1:

1. Legislated minimum nurse -to-patient ratios
2. Historical payroll/finance information
3. Minimum safe staffing models of care
4. Service/organisational benchmarking
5. Patient/consumer dependency information
6. Forecasting

The total productive hours are calculated by adding all direct and indirect productive hours, these will then be translated into FTE in Step 5.

The number of direct and indirect hours that make up the total productive hours must be clearly noted in the service profile. It is also recommended that the method of determining productive hours, and data sources referenced, are clearly identified in the environmental analysis of the service profile.

DIRECT HOURS

Direct hours are the hours spent in activities that nurses and/or midwives perform directly related to clinical care. A list of examples of activities that are considered 'direct hours' can be found in table 2 on page 32.

INDIRECT HOURS

Indirect hours are a component of productive hours. Indirect hours are the hours spent in activities that support clinical care. A list of examples of activities that are considered 'indirect hours' can be found in table 2 on page 32.

Indirect hours need to be determined and negotiated locally. It is paramount that the allocation of these hours and associated resources are prioritised. Each service is to determine the indirect hours to apply taking into account the context of practice and/or model of care, and an environmental analysis as appropriate. The process for determining indirect hours is to be documented in the BPF Service Profile and provided to staff.

The BPF addenda provide guidance for specialty areas and how to apply minimum safe staffing models of care using professional judgement (refer to Appendix 1).

SEASONAL VARIATION

In the instances where there are activity demand changes during seasons or events in the year evidenced in module 1 (such as winter or major events), it is expected that additional roster constructs will be developed for these periods and attached to the service profile. For example, there may be a standard roster construct, and a winter roster construct to account for an increase in activity, occupancy, or bed numbers. This enables a service to determine the supply of nursing/midwifery resources required during periods of fluctuating demand.

WEEKLY VARIATION

There may be instances where service activity demand varies week by week or day of week. It is important to plot a roster construct accordingly when determining the total productive hours required to deliver the planned service. For example, the operating theatres may run on a four-week matrix. In this case, it is important to plot the roster construct over four weeks to account for the variability of the matrix activity.

ELECTRONIC ROSTER TOOLS

In some HHSs, there are electronic tools available to assist with developing a roster construct, or a master roster for the service. It is important to liaise with the dedicated BPF resource within the HHS to determine if electronic tools are available for use.

EXAMPLE WEEKLY ROSTER CONSTRUCT

This inpatient ward example is using a 20-bed model

PRODUCTIVE FTE HOURS	MON	TUES	WED	THURS	FRI	SAT	SUN	TOTAL HOURS
	15.2	15.2	23.2	15.2	15.2			84
AM	40	40	40	40	40	48	16	264
PM	48	40	40	40	40	32	16	256
Night	24	24	24	24	24	16	16	152
Sub-total	**15.2**	**15.2**	**23.2**	**15.2**	**15.2**	**-**	**-**	**84**
Sub-total	**112**	**104**	**104**	**104**	**104**	**96**	**48**	**672**
Total Productive FTE Hours	**127.2**	**119.2**	**127.2**	**119.2**	**119.2**	**96**	**48**	**756**
Total Annual Productive FTE Hours	**39,312 hours**							

Example explanatory notes:

- *Staff work 8-hour shifts (e.g. 40 hours = 5 staff, 48 hours = 6 staff)*
- *7.6 hours per day are to accommodate for rostered days off that are not backfilled*
- *Monday afternoons and Saturday mornings have increased activity demand due to patients/consumers returning from theatre (Monday afternoon) and patients/consumers being discharged home (Saturday morning) which is reflected in the direct hours.*
- *Occupancy trends in the service profile highlight that the average occupancy is 75% on a Saturday afternoon and night and 50% on a Sunday which is reflected in the direct hours.*

ANNUAL HOURS FORMULA

In order to calculate the annual nursing/midwifery productive hours from a weekly roster construct, the following formula is used:

Annual nursing and midwifery productive hours = **Weekly nursing and midwifery productive hours X 52 weeks**

If there is a seasonal plan, such as where for three roster periods during winter, the productive hours increase to accommodate the increased demand, the annual productive hours are determined by:

Weekly nursing and midwifery productive hours X number of weeks for standard roster construct + **Weekly nursing and midwifery productive hours X number of weeks for winter roster construct**

= **Annual nursing and midwifery productive 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. This is achieved by referring to the service profile (Module 1) and the total productive hours developed in Step 1 above.

The nursing/ midwifery skill mix will be unique to each service and should be based on:

- Professional/regulated/legislated skill mix requirements
- Analysis of consumer needs – acuity, complexity and activity as relevant
- Duties and skills required analysed against the generic level statements in the Award
- 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 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.

For some services, Step 1 and Step 2 may be undertaken concurrently, by developing a roster construct inclusive of skill mix (see example below).

PROMPTS

- Does legislation regarding staff skill mix percentages apply to the service? (e.g. Publicly funded Residential Aged Care Facilities)
- Do professional/ regulated (e.g. NMBA)/ legislated (e.g. legislated minimum nurse-to-patient ratios) or CSCF requirements specify skills mix for the service?
- Does the service require a Clinical Nurse (CN) or Clinical Midwife (CM) rostered on each shift? (e.g. 24 hours a day?)

OPTION 1 TOTAL PRODUCTIVE (DIRECT AND INDIRECT HOURS) 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				

ANNUAL HOURS EXAMPLE

PRODUCTIVE HOURS SUMMARY		
Grade	**Weekly hours (determined in roster construct example above)**	**Annual hours**
NG8	38	1,976
NG7	53.2	2,766.4
NG6	53.2	2,766.4

OPTION 2 EXAMPLE

GRADE	PERCENTAGE	NUMBER OF ANNUAL HOURS
RN	30%	18,396 hours
EN	20%	122,646 hours
AIN	50%	30,660 hours

Example:
This example is based on a publicly funded Residential Aged Care Facility where skill mix ratio legislation applies. The annual productive nursing and hours required to deliver service (determined in Step 1) are 61,320 hours.

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

To convert the annual productive nursing/midwifery hours into FTE, the total number of annual hours required in a ward/unit/service is divided by the annual hours equivalent to one FTE.

For some services, Step 2 and Step 3 may be undertaken concurrently, by calculating the FTE at the same time as developing the roster construct inclusive of skill mix (see example below).

ANNUAL BASE FTE FORMULA

HOW MANY HOURS ARE EQUIVALENT TO ONE FTE?

FTE = 38 hours (weekly hours of one FTE) X 52 weeks (one year) = 1976 hours

EXAMPLE

$$\text{FTE} = \frac{\text{38,896 nursing/midwifery productive hours per year}}{\text{1976}} = \text{19.68 FTE}$$

EXAMPLE

This example is based on a publicly funded Residential Aged Care Facility where skill mix ratio legislation applies. The annual productive nursing and hours required to deliver service (determined in Step 1) are 61,320 hours.

GRADE	PERCENTAGE	NUMBER OF ANNUAL HOURS	NUMBER OF FTE
RN	30%	18396 hours	9.31
EN	20%	12264 hours	6.206
AIN	50%	30660 hours	15.515

EXAMPLE

This example is based on a community health service roster construct

PRODUCTIVE HOURS		MON	TUES	WED	THURS	FRI	SAT	SUN	TOTAL WEEKLY HOURS	ANNUAL HOURS	FTE
Total Productive Hours	NP (NG8)	7.6	7.6	7.6	7.6	7.6			38	1976	1.00
	CNC (NG7)	7.6	15.2	7.6	15.2	7.6			53.2	2766.4	1.40
	CN (NG6)	7.6	15.2	7.6	15.2	7.6			53.2	2766.4	1.40

Example explanatory notes:

- 7.6 hours per day are to accommodate for rostered days off that are not backfilled
- 15.2 hours = 2 staff
- On Tuesdays there is an outreach clinic which results in increased client activity during the day
- The service conducts clinics into the late evening on Thursdays in response to consumer demand/expectations
- This roster construct example has not included additional indirect hours required for the service

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 in Step 3. 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, senior nursing/midwifery leadership and finance/business 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 should be undertaken in collaboration with the line manager, relevant senior nursing/midwifery officer 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 locally agreed multipliers for the backfilling of annual leave, sick leave and professional development leave (PDL):

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. The rationale used to determine the multipliers and consultation with the local HHS BPF Steering Committee and local NaMCF should be appropriately documented.

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

NON-PRODUCTIVE	DAYS/WEEKS	ANNUAL HOURS	PERCENTAGE
Sick Leave	10 days	76 hours	3.85%
Annual Leave	4 weeks	152 hours	7.6%
Annual Leave	5 weeks	190 hours	9.6%
Annual Leave	6 weeks	228 hours	11.5%
PDL	3 days	22.8 hours	1.15%
PDL – RANIP	10 days	76 hours	3.85%

Mandatory training

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:

- 11 days (83.6 hours) for new staff, and
- 5 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 NaMCF. It is recommended that consultation with these groups is documented.

EXAMPLE

This example is based on an inpatient service with a headcount of 48

Grade	FTE	Annual Leave (5/6 weeks)	Sick Leave (3.85%)	Professional Development Leave (PDL) (1.15%)	Mandatory Training		Total FTE
					Average 4 new staff head count (4.23%)	Existing 44 staff head count (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	00	0			0
TOTAL	**38.6**	**4.37**	**1.55**	**0.52**	**0.17**	**0.85**	**46.06**

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

The example below is designed to assist with how to calculate the non-productive nursing/midwifery hours into full-time equivalents (FTE). The application of this practice to a specific service 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.

This step involves a calculation only. The method of applying the non-productive FTE is considered at Step 6.

EXAMPLE

This example is based on 45 base FTE (productive) with a headcount of 50 staff

Grade	Base FTE	Annual Leave hours (5 weeks @ 9.5% 6 weeks @ 11.4%)	Sick Leave hours 3.85%	PDL hours (PDL) (1.15%)	Mandatory Training hours		Total hours	Total FTE (÷1976 hrs)
					Average 4 new staff headcount	Existing 46 staff headcount		
7	1.0	190hrs (5)	76hrs	22.8hrs			288.8hrs	0.15
6	12.4	2827.2hrs (6)	942.4hrs	282.7hrs			4052.32hrs	2.05
5	25.9	5905.2hrs (6)	1968.4hrs	590.5hrs	334.4hrs	1748hr	10546.52hrs	5.34
4	2.0	456hrs (6)	152hrs	45.6hrs			653.6hrs	0.33
3	2.7	615hrs (6)	205.2hrs	61.56hrs			882.36hrs	0.45
1	1.0	190hrs (5)	76hrs				266hrs	0.13
TOTAL	**45.0**	**10184hrs**	**3420hrs**	**1003.16hrs**	**334.4hrs**	**1748hr**	**16689.6hrs**	**8.45**

Total non-productive

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 labour 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.

It is essential for the nursing/midwifery line manager to partner with the finance/business team to understand the allocation of the financial resources in line with the approved service profile. Throughout the BPF process, an interest based problem solving approach should be taken (appendix 2).

BUDGET PLANNING TOOLS

There are standard tools available in all HHSs to support the development of labour budgets which may be used to support the development of the resource allocation as part of the BPF. These tools are utilised by the finance/business team and incorporate additional on-costs such as penalty rates, superannuation loading, leave loading and WorkCover loadings. These tools have similar, but not 'like for like' terminology as the BPF methodology. There are resources available on the Queensland Health Intranet site to assist with understanding the standard finance tools available.

FINANCIAL (COST CENTRE) ALLOCATION

To enhance the ability of an organisation to match the workforce supply with the service demand, there may be circumstances where components of the non-productive budget may be allocated to another cost centre. For example, the budget associated with sick leave may be allocated to the staff relief pool cost centre to enable backfill of sick leave shifts when required. It is important that this is documented in the BPF Service Profile.

It is essential for the nursing/midwifery line manager to partner with the finance/business team to understand the allocation of the financial resources in line with the approved BPF Service Profile.

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

Once the productive and non-productive nursing/midwifery FTE required to deliver the service has been determined, the final step is to then allocate FTE in a roster for the service.

This roster should be based off the roster construct developed from the initial Steps, and should consider:

- Time of day
- Day of week
- Skill mix
- Seasons
- Multidisciplinary team availability
- Compulsory service modifications (e.g. public holidays)
- Other locally significant reasons such as tourism, industry and major community events

There are resources to assist managers to develop rosters, including the *Queensland Health Nurses and Midwives* Best Practice Rostering Guidelines available on the Queensland Health Intranet. There may also be electronic rostering tools/systems available in the HHS to assist.

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 BPF Service Profile.

Module 3

Guide to evaluation of performance

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.

Evaluating the performance of the implemented BPF Service Profile is achieved through the continual process of assessing the overall effectiveness, efficiency, safety and outcomes of the allocation of nursing and midwifery resources. This evaluation of the BPF Service Profile for the service is undertaken once the agreed service profile (Module 1) and resource allocation (Module 2) is implemented. It can be reviewed on a regular basis throughout the year or at anytime if there are changes to a service.

This may be accomplished through the use of local service performance scorecards or other reporting tools which are regularly reviewed (e.g. quarterly, monthly or more frequently as required). The evaluation of the implementation of the BPF Service Profile can be used to inform the internal environmental analysis (Module 1) in the following years' BPF Service Profile.

- Evaluating the performance of the service and aligning with the identified service objectives will:
  - determine the extent to which stated objectives are being achieved
  - determine the effectiveness and efficiency of the allocation of resources
  - highlight changes to the BPF Service Profile that may be required
  - identify whether a balance between service demand and allocated resources (supply) has been achieved
  - determine the effectiveness of workload management strategies to resolve, mitigate risk to patient/consumer safety and/or prevent re-occurrence of the identified workload concern

> **The Nursing and Midwifery Workload Management Standard compliance measures require that:**
>
> ***'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.'***

MEASURING AND MONITORING PERFORMANCE

Measuring performance is the means of evaluating the overall effectiveness, efficiency and appropriateness of service planning and resource allocation against service objectives. Performance measures include financial and non-financial indicators that are based on service objectives and the strategic direction of the organisation.

The frequency of measuring and evaluating performance is variable. It is recommended that senior nursing/midwifery officers and business managers are consulted and in collaboration work to ensure the service is complying with the reporting requirements of the organisational Service objectives (Module 1) determine the measures of performance to be applied within a service. The measures developed need to be reliable and valid. The performance measures of a service are reviewed in the internal environmental analysis (Module 1) to assist with determining the service demand for the BPF Service Profile. The example performance measures in Module 1 are aligned with the principles of the BPF, being the consumer, the staff and the organisation.

WHEN EVALUATING PERFORMANCE, ACTUAL RESULTS SHOULD BE COMPARED WITH:

- Planned key performance measures and targets
- Historical performance outcomes
- Performance of interrelated services.

PERFORMANCE MEASURES

The application of the following performance measures will improve the collection and analysis of data to support the delivery of nursing/midwifery services. It will also help to deliver consistency and transparency in reporting the achievements of the service to the organisation and the public.

EFFECTIVENESS MEASURES

Effectiveness measures reflect the actual outcomes achieved for consumers, 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.
Examples: Emergency Department Length of Stay performance

COST EFFECTIVENESS is the relationship between the service's operating budget and the actual outcomes achieved.
Examples: Full year forecast operating position

EFFICIENCY MEASURES

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

TECHNICAL EFFICIENCY requires that health services are produced at the lowest possible cost.
Examples: telehealth services (reducing patient/consumer travel requirements).

ALLOCATIVE EFFICIENCY requires the production of health services that are most valued by consumers and are provided within a given set of resources.
Examples: Patient Reported Experience Measures.

DYNAMIC EFFICIENCY require that consumers are offered existing and new services at a higher quality and/or lower cost.
Examples: Introduction of nurse-led clinics or midwifery-led models of care.

ACTIVITY MEASURES

Activity measures reflect the volume of work being undertaken in a service including the number of services provided, the number of consumers 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.
Examples: occupied bed days; occasions of service.

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.
Examples: patients seen in time (in a specialist outpatient clinic).

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.
Examples: paid FTE per fortnight; sick leave utilisation.

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.
Examples: Nurse Sensitive Indicators or Midwifery/Maternity Sensitive Indicators; Audit compliance.

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 consumers 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: Discharges against medical advice for Aboriginal and/or Torres Strait Islander peoples; employment diversity targets.

REPORTING PERFORMANCE

Reporting on the performance measures 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. A common reporting method includes performance scorecards.

PERFORMANCE SCORECARDS

Scorecards are a collection of management reporting tools used to measure the performance of a respective service, business area or unit against the objectives outlined within the operational plan or service level agreement. These objectives are also identified in the service's BPF Service Profile.

Performance scorecards are composed of a range of measures, including financial and non-financial elements, which are compared to a performance target within a single, concise report.

Scorecards enable the service to identify trends, and often include graphical representation of the performance over time (e.g. months or years).

The example performance measures identified in Module 1 could be considered for inclusion when developing a scorecard for a particular service.

Balancing supply and demand in nursing/ midwifery services

The BPF provides a formal methodology for aligning workplace demand with nursing and midwifery supply to ultimately ensure support for safe and appropriate staffing levels and workplace provisions.

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

The aim of the BPF methodology 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

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

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

THE FOLLOWING STRATEGIES ARE EXAMPLES WHICH MAY BE UNDERTAKEN WHEN THERE IS AN IMBALANCE

When service demand is greater than the supply of resources	When the supply of resources is greater than service demand
» Identify what is the current capacity (i.e. available workload) and capability (i.e. skill mix) of the nursing/ midwifery resources » Activate low priority activity list to prioritise clinical nursing/midwifery activities and tasks (refer to: Developing a low priority list below) » Change/alter patient/consumer activity/demand 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: Managing emergent imbalance in supply and demand)	» Reallocate the available nursing/midwifery hours e.g. staff redirection (e.g. to other service areas of need, to indirect activities such as quality portfolio work) » Reduce the available nursing/midwifery hours e.g. roster re-engineering/leave options » Increase activity levels (e.g. accept new admissions as appropriate for the service area) » 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 HHS 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 nursing and midwifery staff 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.

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 permanently employed in the nursing/midwifery support service and allocated to work in services experiencing skill mix shortage due to extended/multiple vacancies.

DEVELOPING A LOW PRIORITY ACTIVITY LIST

The key strategy to manage demand and supply includes 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 is developed based on the professional judgment of the nurses and midwives in the service. It must be developed and agreed in consultation with nurses and midwives in the service when developing the BPF.

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/consumer 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

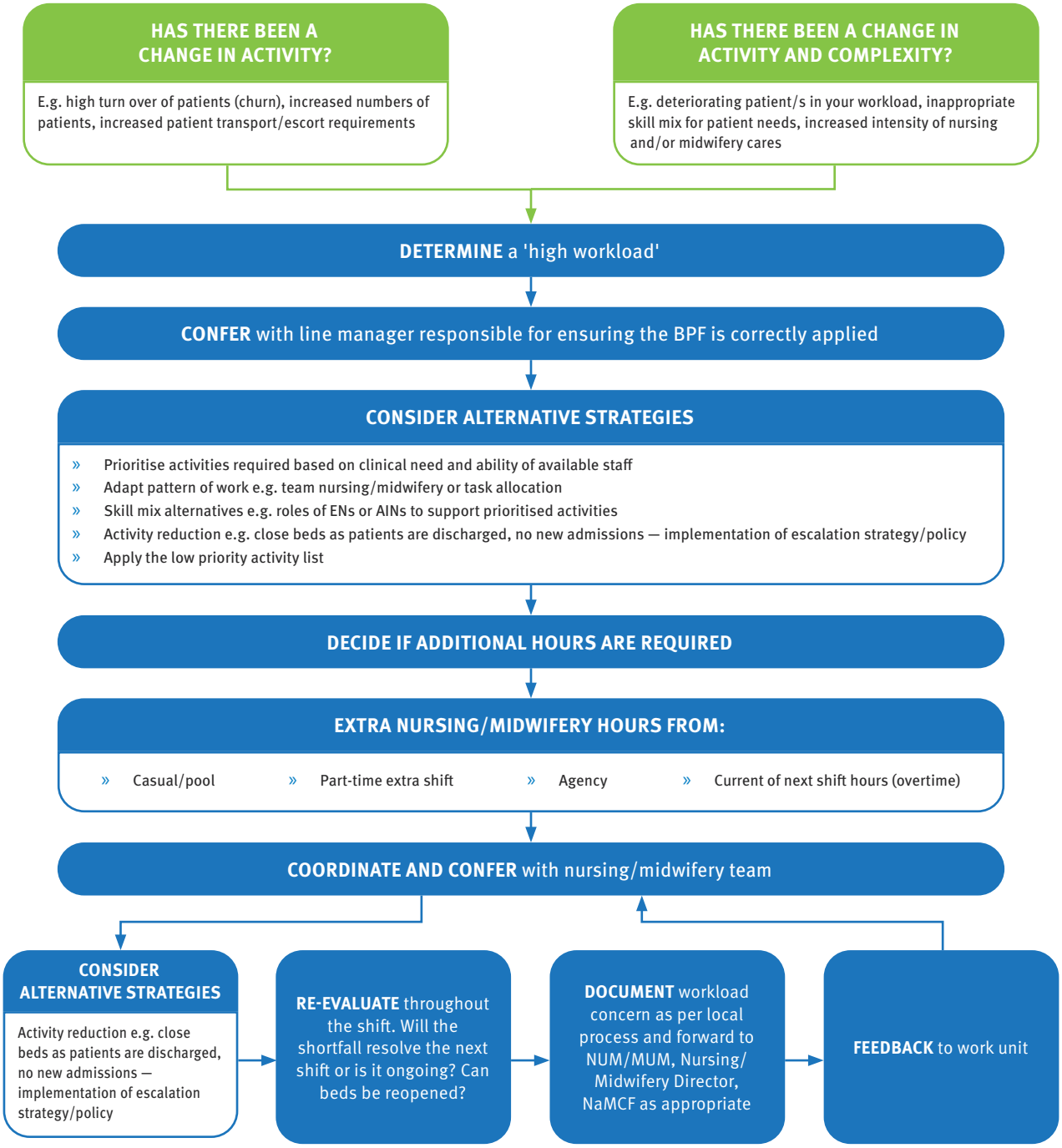
APPENDIX 4 PROVIDES A TEMPLATE FOR A LOW PRIORITY ACTIVITY LIST

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 consumer and staff safety which include but are not limited to the "low priority activity list" and escalation process (refer back to list of strategies pg. 53). The flow diagram below provides guidance for managing emergent imbalances in supply and demand as they arise on a shift:



MANAGING WORKLOAD CONCERNS

The Award 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 concerns 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 consumers, staff and the organisation. The Award (as varied) can be accessed from the Queensland Industrial Relations Commission website here: https://www.qirc.qld.gov.au/

Queensland Health and QNMU recognise that an interest based (mutual gains) approach:

- promotes a relationship based on trust,
- allows the parties to search for mutual gains while managing conflicts of interest, and
- maximises the opportunity to arrive at a fair outcome.

The principles of interest based problem solving should be applied when applying the workload management escalation process (see Appendix 2).

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/consumers or staff, interested parties will work together to address the concern as a matter of urgency by immediate escalation to Stage 3.

Where a nurse or midwife identifies a workload concern, they should complete a Queensland Health workload reporting form.

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 implementing service agreed low priority strategies) to resolve the identified concern, mitigate risk to patient/consumer 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 (that is Nurse Grade 9 and above depending on the nursing executive structure of the facility).

The parties will review the identified workload concern and determine and implement further actions to resolve the concern, mitigate risk to patient/consumer safety and/or prevent re-occurrence, within seven 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 the professional lead equivalent, and union representative.

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

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

STAGE 4

If the workload concern is not resolved at Stage 3, a specialist panel must be convened by the HHS Executive Director of Nursing/Midwifery or Department of Health equivalent within seven days (or longer as agreed by the parties) of the concern being escalated from Stage 3 by a party to the concern.

The specialist panel will be made up of the following nominees:

Employer nominees:

- HHS Executive Director of Nursing/Midwifery or Department of Health equivalent
- External Executive Director of Nursing/Midwifery peer (optional)
- HHS /Department of Health BPF expert
- External BPF expert - other HHS or Office of Chief Nurse and Midwifery Officer
- HHS/Department of Health Human Resources/Industrial Relations representative

QNMU nominees:

- Industrial Officer
- Professional Officer
- Organiser
- QNMU Workplace representatives

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

The recommendations of the specialist panel meeting must be published and 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 party to the concern may refer the matter to the Queensland Industrial Relations Commission for conciliation and, if necessary, arbitration.

For the purposes of this stage, an unresolved concern may include but is not limited to 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 partly implemented.

WORKLOAD CONCERN COMMUNICATION 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/line 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 QNMU official and reports to the NaMCF on the actions taken.
- **Nursing/Midwifery Executive Team** communicates to all affected staff and the NaMCF on the actions taken and to be taken to address the identified workload concern. 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 concerns and actions to the HHS Patient Quality and Safety Committee and Executive Committee to endorse the specialist panel's recommendations, if required.

Appendices

Appendix 1

Resources and further readings

ACTIVITY RESOURCES

- Defining Fractional Accrued Bed (Patient) Days
- Occasion of service definition
- Occupied bed definition
- Weighted Activity Unit (WAU) definition

BUSINESS PLANNING FRAMEWORK ADDENDA

Accessible at qheps.health.qld.gov.au/nmoq/workforce-sustainability/bpf/addendums

- Emergency Department Addendum
- Maternity Services Addendum
- Mental Health Services Addendum
- Paediatric Setting Addendum
- Perioperative Services Addendum
- Primary and Community Health and Public Health Services Addendum
- Prison Health Services Addendum
- Remote Setting Addendum
- Rural Setting Addendum

CLINICAL SERVICES CAPABILITY FRAMEWORK

- 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

CONSUMER RESOURCES

- Patient Experience Surveys

DECISION SUPPORT SYSTEM (DSS)

- DSS is a secure business intelligence tool that provides users with access to statewide source system data for operational and strategic reporting, benchmarking and analytics.

FUNDING RESOURCES

- HHS funding models (including Activity Based Funding, Block Funding and other funding models)
- Costing of public health services
- Classifications, counting and data collections (including admitted Acute Care, Tier 2 Non-Admitted Care, Subacute and Non-Acute Care, Emergency Care, Mental Health Care classifications)
- Budget templates and forms
- Budget Planning Tool (BPT)

HHS SERVICE AGREEMENTS

- The Service Agreements in place between the Department of Health and each HHS for the provision of public health services

HUMAN RESOURCES DEFINITIONS

- Queensland Health HR Scorecard Dictionary of Workforce Metrics
- The Interaction of Queensland Health's MOHRI Occupied FTE and QH FTE
- Managing work unit establishment
- How the FTE and Business Rule Calculation Process works – User Guide

LEGISLATION

Accessible at legislation.qld.gov.au/browse/inforce

- *Hospital and Health Boards Act 2011*
- *Hospital and Health Boards Regulation 2012*
- *Human Rights Act 2019*
- *Financial Accountability Act 2009*
- *Financial and Performance Management Standard 2009*
- *Public Sector Ethics Act 1994*
- *Public Service Act 2008*

NATIONAL SAFETY AND QUALITY HEALTH SERVICE STANDARDS (NSQHSS)

- The National Safety and Quality Health Service (NSQHS) Standards provide a nationally consistent statement of the level of care consumers can expect from health service organisations

NOTIONAL RATIOS

- Notional Nurse/Midwife Patient Ratios Flyer

NURSING AND MIDWIFERY WORKLOAD MANAGEMENT STANDARD

- A standard about managing nursing and midwifery resource supply and demand and reporting of nursing and midwifery workload management information, provided for within the *Hospital and Health Boards Act 2011*

PERFORMANCE FRAMEWORK AND REPORTING

- Queensland Government Performance Management Framework Policy
- Queensland Government Performance Management Framework
- System Performance Reporting - Queensland Health's system-wide performance reporting platform

Appendix 2

Interest Based Problem Solving to assist with negotiation

The principles of interest based problem solving (IBPS) may assist with the negotiation and consultation processes relating to the BPF Service Profile (see governance and negotiation process of the BPF - Table 1). The following is an overview of IBPS.

IBPS DEFINITION

Interest based problem solving is 'a method of negotiation explicitly designed to produce wise outcomes efficiently and amicably' (Harvard Negotiation Institute). IBPS brings parties together to achieve workable solutions.

IBPS PRINCIPLES

IBPS is about parties working together to tackle a problem where they may have differing or competing positions and interests. The IBPS Principles are:

- **People:** Separate the people from the problem
- **Interests:** Focus on interests, not positions
- **Options:** Generate a variety of possibilities that meet your interests
- **Criteria:** Insist that the proposed solution be based on an objective standard before deciding what to do

IBPS AIMS

An interest based problem solving approach aims to:

- Promote a relationship based on trust;
- Search for mutual gains while managing conflicts of interest; and
- Arrive at a fair outcome.

IBPS CYCLE

INTERESTS
Identify your interests. These can be the concerns, needs or desires that underlie an issue.

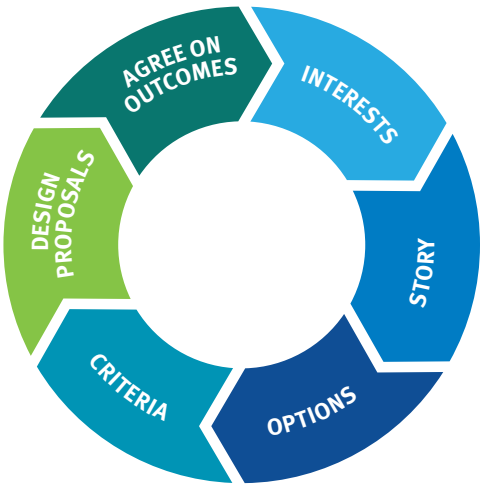
Example:

- Position – More staff are needed
- Interest – Ensuring the service is able to provide safe high-quality care with increasing patient/consumer activity

STORY
Define the issue, state the problem or the issue to be solved. This should not be a positional statement or form an accusation.

Example:

- With increasing patient activity, what can be done to ensure supply meets demand while maintaining safe and high-quality care, as the current model of care is not aligned with service demand?



OPTIONS
Brainstorm as many ideas as possible. Open ended discussions lead to multiple possible options. Generating ideas together creates joint solutions.

CRITERIA
Establish together what to look for in a solution, look for objective standards and evidence. Objective criteria are a standard of measurement that both parties can agree is fair and legitimate and may include sustainability.

DESIGN PROPOSALS
Draft informal proposals that meet as many interests as possible and evaluate them based on the criteria determined above to ensure the proposal will meet the established criteria.

AGREE ON OUTCOMES – Reach a joint solution, implement and monitor the impact. Consider a period of review to ensure solution is fulfilling the established criteria.

Escalation

Where there is an inability to reach agreed outcomes when negotiating a service's BPF Service Profile with the IBPS process, an escalation process should be enacted. This escalation process should be determined locally within the HHS and align with the BPF governance and negotiation process identified in Table 1.

Appendix 3

How to calculate average nursing/midwifery hours for a service

There following are formulas for calculating the average nursing/midwifery hours for a service. The appropriate formula/s to use depends on the models of care used in a specific service, and the way activity is measured.

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

In this example, staff work 8-hour shifts, and there are 30 days in the month.

Note: if calculating a 4 week roster then there are 13 4 week roster cycles in a year (not 12) and if calculating over a financial year and not a calendar year, then check if there are 52 or 53 weeks in the financial year for calculation.

Rostered direct nursing/midwifery hours per month	=	720 shifts
720 shifts x 8 hours	=	5760 direct hours
Rostered indirect nursing/midwifery hours per month	=	126 shifts
126 shifts x 8 hours	=	1008 indirect hours
Productive nursing/midwifery hours (paid) used per month	=	5760 hours + 1008 hours
	=	6768 PRODUCTIVE HOURS

Total no. of occupied bed days for the month = 1021

$$\text{Average hours per patient day} = \frac{\text{6768 productive hours}}{\text{1021 occupied bed days}} = \text{6.63 N/MHpPD}$$

EXAMPLE OF CALCULATING HOURS PER PATIENT DAY (HPPD)

In this example, the ward has 28 beds with 100% occupancy operating 7 days/week

Note: the bed occupancy percentage will change the HPPD and therefore must be included in the calculation.

DIRECT PATIENT CARE STAFFING INCLUDES:

AM 7 x 8-hour shifts (= 56 hours) **PM** 7 x 8-hour shifts (= 56 hours) **ND** 4 x 8-hour shifts (= 32 hours)

$$\text{HPPD} = \frac{56\text{hrs} + 56\text{hrs} + 32\text{hrs} \times 7 \text{ days}}{28 \text{ beds} \times 100\% \text{ occupancy} \times 7 \text{ days}} = \frac{1008 \text{ hours}}{196 \text{ bed days}} = 5.14 \text{ HPPD}$$

EXAMPLE OF CALCULATING ANNUALISED HOURS USING HPPD

ANNUAL HOURS FORMULA

$$\text{HPPD} \times \text{Beds} \times \text{Occupancy (\%)} \times \text{days/week} \times 52 \text{ weeks} = \text{Annualised Hours}$$

In this example, the ward has 28 beds at 100% occupancy operating 7 days per week, 52 weeks of the year, with 5.14 HPPD

$$5.14 \text{ HPPD} \times 28 \text{ beds} \times 100\% \text{ occupancy} \times 7 \text{ days} \times 52 \text{ weeks} = 52{,}387 \text{ hours}$$

FORMULA 2: AVERAGE HOURS PER OCCASIONS OF SERVICE

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

OUTPATIENT SERVICE EXAMPLE: CALCULATING PRODUCTIVE HOURS

In this example, staff work 8-hour shifts

Rostered direct nursing/midwifery hours per month	=	85 shifts
85 shifts x 8 hours	=	680 direct hours
Rostered indirect nursing/midwifery hours per month	=	28 shifts
28 shifts x 8 hours	=	224 hours
Productive nursing/midwifery hours used per month	=	680 hours + 224 hours
	=	904 HOURS PRODUCTIVE HOURS

Total number of Occasions of service = 980 per month

$$\text{Average hours per occasion of service} = \frac{\text{904 productive hours}}{\text{980 occasions of service}} = \text{0.92 N/MHpPOS}$$

Appendix 4

Low Priority Activity List Poster

Queensland Health

Nurses and Midwives Workload Low Priority Activity List

Queensland Health Nurses and Midwives provide safe patient care

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 QNMU. 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

Nurses and Midwives Workload Low Priority Activity List - Updated June 2020

qnmu Queensland Nurses & Midwives Union

Queensland Government

Appendix 5

Notional Nurse/Midwife Ratios

In addition to those legislated minimum nurse to patient ratios wards, each ward/unit will define its Notional nurse : patient ratios specifying the nursing/midwifery hours per patient day (or occasions of service) they are required to provide which will vary in accordance with changing acuity and activity. Where the notional nurse : patient ratio is higher than the legislated ratio, the notional ratio derived through the BPF methodology must still be adhered to.

Queensland Health

Notional Nurse/Midwife Patient Ratios

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 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

Notional Nurse/Midwife Patient Ratios - Updated June 2020

qnmu Queensland Nurses & Midwives' Union

Queensland Government

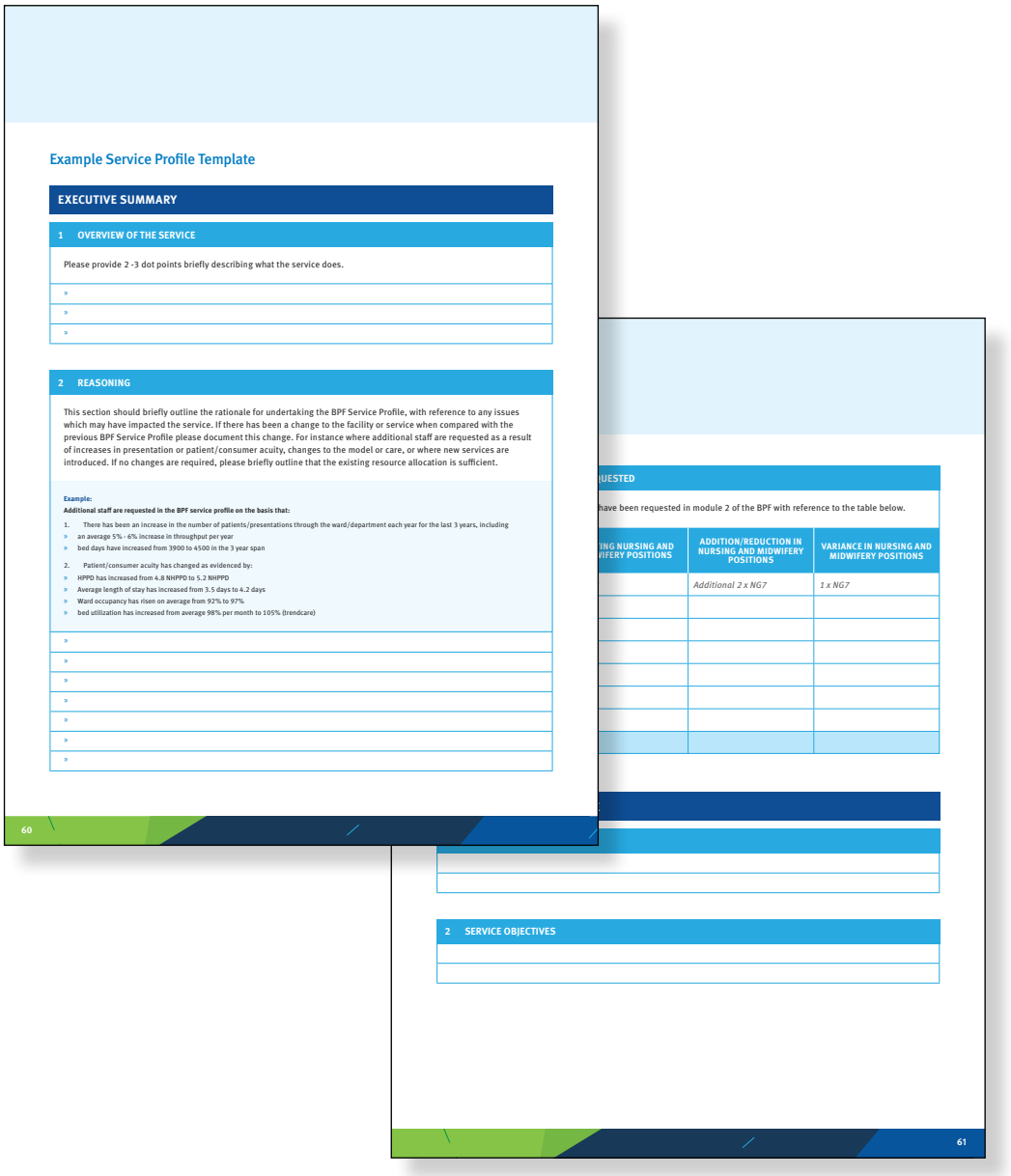
Appendix 6

Example Service Profile Template

This service profile template is included as an example where a statewide electronic business planning framework is not available. It 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 HHS.

A complete BPF service profile consists of both module 1 and module 2 of the Business Planning Framework. It is recommended that this template is used in conjunction with:

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



Example Service Profile Template

EXECUTIVE SUMMARY

1 OVERVIEW OF THE SERVICE

Please provide 2 -3 dot points briefly describing what the service does.

2 REASONING

This section should briefly outline the rationale for undertaking the BPF Service Profile, with reference to any issues which may have impacted the service. If there has been a change to the facility or service when compared with the previous BPF Service Profile please document this change. For instance where additional staff are requested as a result of increases in presentation or patient/consumer acuity, changes to the model or care, or where new services are introduced. If no changes are required, please briefly outline that the existing resource allocation is sufficient.

Example:
Additional staff are requested in the BPF service profile on the basis that:

1. There has been an increase in the number of patients/presentations through the ward/department each year for the last 3 years, including
   - an average 5% - 6% increase in throughput per year
   - bed days have increased from 3900 to 4500 in the 3 year span
2. Patient/consumer acuity has changed as evidenced by:
   - HPPD has increased from 4.8 NHPPD to 5.2 NHPPD
   - Average length of stay has increased from 3.5 days to 4.2 days
   - Ward occupancy has risen on average from 92% to 97%
   - bed utilization has increased from average 98% per month to 105% (trendcare)

60

UESTED

have been requested in module 2 of the BPF with reference to the table below.

ING NURSING AND WIFERY POSITIONS	ADDITION/REDUCTION IN NURSING AND MIDWIFERY POSITIONS	VARIANCE IN NURSING AND MIDWIFERY POSITIONS
	Additional 2 x NG7	*1 x NG7*

2 SERVICE OBJECTIVES

61

See example full size 'Service Profile Template' overleaf »

Example Service Profile Template

EXECUTIVE SUMMARY

1 OVERVIEW OF THE SERVICE

Please provide 2 -3 dot points briefly describing what the service does.

»

»

»

2 REASONING

This section should briefly outline the rationale for undertaking the BPF Service Profile, with reference to any issues which may have impacted the service. If there has been a change to the facility or service when compared with the previous BPF Service Profile please document this change. For instance where additional staff are requested as a result of increases in presentation or patient/consumer acuity, changes to the model or care, or where new services are introduced. If no changes are required, please briefly outline that the existing resource allocation is sufficient.

Example:

Additional staff are requested in the BPF service profile on the basis that:

1. There has been an increase in the number of patients/presentations through the ward/department each year for the last 3 years, including
   - » an average 5% - 6% increase in throughput per year
   - » bed days have increased from 3900 to 4500 in the 3 year span
2. Patient/consumer acuity has changed as evidenced by:
   - » HPPD has increased from 4.8 NHPPD to 5.2 NHPPD
   - » Average length of stay has increased from 3.5 days to 4.2 days
   - » Ward occupancy has risen on average from 92% to 97%
   - » bed utilization has increased from average 98% per month to 105% (trendcare)

»

»

»

»

»

»

»

3 SUMMARY OF RESOURCES REQUESTED

Please briefly outline what resources have been requested in module 2 of the BPF with reference to the table below.

NURSE GRADE	EXISTING NURSING AND MIDWIFERY POSITIONS	ADDITION/REDUCTION IN NURSING AND MIDWIFERY POSITIONS	VARIANCE IN NURSING AND MIDWIFERY POSITIONS
Example:	*1 X NG7*	*Additional 2 x NG7*	*1 x NG7*
TOTAL			

MODULE 1: SERVICE PROFILE

1 SERVICE AIM

2 SERVICE OBJECTIVES

3 SERVICE DESCRIPTION

Location of service delivery

Type of current/planned service

Model(s) of care

Access to health services

4 INTERNAL ENVIRONMENTAL ANALYSIS

Physical structure

Organisational governance

Information technology and management

Performance

5 EXTERNAL ENVIRONMENTAL ANALYSIS

Policy/legal

Economic

Social

Technology

Environment

Research/evidence based practice

6 SWOT ANALYSIS

STRENGTHS	WEAKNESSES
OPPORTUNITIES	**THREATS**

MODULE 2: RESOURCE ALLOCATION

SEVEN STEPS FOR RESOURCE ALLOCATION

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 baseline FTE
STEP 4	Calculate non-productive nursing and/or midwifery hours in accordance with nursing and midwifery Award entitlements as relevant
STEP 5	Convert non-productive nursing and/or midwifery hours into FTE
STEP 6	Add productive and non- productive FTE together and convert into financial resources in partnership with business team
STEP 7	Allocate nursing and/or midwifery hours to meet service requirements

DIRECT HOURS NURSING/MIDWIFERY ROSTER CONSTRUCT

SHIFT	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
AM							
PM							
Night							
Total hours							

DIRECT HOURS NURSING/MIDWIFERY ROSTER CONSTRUCT

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

The table below can be completed to demonstrate the notional ratios on each shift.

NURSE/MIDWIFE TO PATIENT NOTIONAL RATIOS – DIRECT HOURS				
SHIFT TIMES – RANGE OF HOURS	OCCUPIED BEDS	NURSING HOURS REQUIRED PER 24 HOUR PERIOD	SHIFT OPTIONS	NOTIONAL RATIOS

AGREED WORKFORCE BUDGET

NHPPD		@	% occupancy
NHPOS		@	% occupancy
NHPUA		@	% occupancy

The table below is a guide only, and should be contextualised to the staffing profile of the service.

NURSE GRADE	BUDGETED FTE	APPROVED FTE*	APPROVED FTE INCLUSIONS					TOTAL FTE REQUESTED
			BASE	A/L	S/L	MDT	PDL	
Total								

**Approved FTE is the total FTE allowable to be recruited to without formal application to increase FTE with the relevant Nursing / Midwifery and 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 regard to the nursing and midwifery resource requirements outlined above.

(Endorsement position(s) can be modified to suit the Ward/Service structure)

ENDORSED BY	NAME	DATE	SIGNATURE
Nurse/Midwifery Unit Manager			
Business Manager			
Nursing/Midwifery Director/DON/DOM			
Operations Director			

EXECUTIVE ENDORSEMENT	NAME	DATE	SIGNATURE
Executive Director with Financial Delegation*			
Executive Director of Nursing and Midwifery or equivalent accountable nursing and midwifery officer			
Comments			

**It is recommended that the EDNM sign off only occurs where they can be assured that the model of care proposed meets minimal clinical requirements for activity and safety.*

CONSULTATION

STAFF CONSULTATION	GRADE	DATE	SIGNATURE
Discussed at ward/clinical area meeting	All grades		
Email distribution to staff	All grades		

CONSULTATION CHECKLIST

- ☐ Budget provided to NUM/MUM
- ☐ Approved BPF Service Profile (consisting of modules 1 and 2) tabled at the NaMCF
- ☐ Copy of the approved BPF Service Profile (consisting of modules 1 and 2) provided to the QNMU
- ☐ Service Profile provided to NM BPF Resources for publishing

Appendix 7

Glossary

TERM	DEFINITION/DESCRIPTION	EVIDENCE REFERENCE/LINK
Acuity	A measure of consumer complexity and intensity which assists nurses and midwives to identify and plan resources to provide safe nursing and midwifery care.	
Approved FTE	Number of FTE positions that are approved and have been established within the payroll system.	https://qheps.health.qld.gov.au/__data/assets/pdf_file/0023/733226/hrp-payroll-sap-glossary.pdf
Australian Refined Diagnosis- related groups (DRGs)	An Australian admitted patient classification system which provides a clinically meaningful way of relating the number and type of patients treated in a hospital (known as hospital casemix) to the resources required by the hospital. Each DRG represents a class of patients with similar clinical conditions requiring similar hospital services.	https://www.aihw.gov.au/reports/hospitals/ar-drg-data-cubes/contents/data-cubes
BPF Steering Committee	The BPF Steering Committee is a source of expertise and support for the effective implementation of the BPF.	*Nurses and Midwives (Queensland Health and Department of Education) Certified Agreement (EB10) 2018 (EB10) BPF Steer*
BPF Service Profile	The final document produced when applying the Business Planning Framework methodology. The BPF Service Profile includes both the Service Profile (Module 1 – demand module) and (Module 2 – supply module).	
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/
Direct hours	The hours spent in activities that nurses and/or midwives perform directly related to patient/consumer care.	
Full-time equivalent (FTE)	FTE includes all active full-time and part-time, ongoing and non-ongoing employees engaged for a specified term or task paid through payroll (part-time employees are converted to full-time equivalent based on the hours they work).	https://www.apsc.gov.au/appendix-common-workforce-metrics https://qheps.health.qld.gov.au/__data/assets/pdf_file/0023/733226/hrp-payroll-sap-glossary.pdf
Hospital and Health Service (HHS)	HHSs are statutory bodies and are the principal providers of public sector health services.	
Indirect hours	Indirect hours are the hours spent in activities that support clinical processes.	
International Classification of Diseases (ICD)	The ICD is the global health information standard for mortality and morbidity statistics. ICD is increasingly used in clinical care and research to define diseases and study disease patterns, as well as manage health care, monitor outcomes and allocate resources.	https://www.who.int/classifications/icd/factsheet/en/

TERM	DEFINITION/DESCRIPTION	EVIDENCE REFERENCE/LINK
Minimum safe staffing	As part of the BPF process, minimum safe staffing requirements form one of the considerations when determining productive hours in module 2. Minimum safe staffing refers to a definitive minimum staffing level of nurses and/or midwives to support the safe provision of care to patients. In determining minimum safe staffing compliance with any pertinent legislative requirements is considered mandatory, and sound reasoning must exist for departing from any relevant professional standards or codes of practice. It is acknowledged that, consistent with the provisions of the industrial instruments, professional judgment is a valid criterion for deeming a definitive staffing level of nurses and/or midwives as being safe.	
Non-productive hours	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 hours.	
Notional nurse: patient ratio	Notional ratios are the staffing levels agreed to through the BPF process. These are distinct from legislated ratios which represent the legislated minimum number of nurses and/or midwives required to provide direct care on a prescribed ward, unit or service.	
Nursing and Midwifery Consultative Forum (NaMCF)	The NaMCF provides a timely and effective consultative forum on nursing and midwifery issues at the local facility/service level.	*Nurses and Midwives (Queensland Health and Department of Education) Certified Agreement (EB10) 2018*
Nursing and Midwifery Implementation Group (NaMIG)	NaMIG is the peak consultative forum for the advancement of the industrial and professional interests and issues of the Queensland Health nursing and midwifery workforce. NaMIG comprises representatives of Queensland Health (meaning the Hospital and Health Services and Department of Health) and representatives of the Queensland Nurses' Union (QNMU)	*Nurses and Midwives (Queensland Health and Department of Education) Certified Agreement (EB10) 2018)*
Nurse Sensitive Indicator (NSI) or Midwifery/ Maternity Sensitive Indicator	A set of standardised performance measures intended to assist health facilities to assess the extent to which nursing/midwifery interventions impact on patient/consumer safety, quality and the professional work environment. Nurse Sensitive Indicators or Midwifery/Maternity Sensitive Indicators primarily relate to adult inpatient services. Examples of Nurse Sensitive Indicators include the number of pressure injuries, falls, medication administration incidents, blood transfusion incidents, and hospital acquired infections.	
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.	
Productive hours	Productive nursing and/or midwifery hours contribute to consumer care and include both direct and indirect clinical hours.	
Skill mix	Skill mix constitutes the proportions of different levels of nurse/midwife, including the level of qualifications, expertise and experience, available for consumer care.	Jacob, E.R., McKenna, L., & D'Amore, A. (2015). The changing skill mix in nursing: considerations for and against different levels of nurse. Journal of Nursing Management DOI: 10.1111/jonm.12162

Appendix 8

Generic Business Planning Framework Steering Committee Terms of Reference

BUSINESS PLANNING FRAMEWORK STEERING COMMITTEE

(Generic for Hospital and Health Services)

1. PURPOSE

In accordance with clause 34.4 *Nurses and Midwives (Queensland Health and Department of Education) Certified Agreement (EB10) 2018*, the purpose of the BPF Steering Committee is to ensure transparency in the development and sign-off of the BPF service profiles, including direct links to the budget setting process. It will be a source of expertise and support for the effective implementation and monitoring of the BPF and build local sustainability across the insert name HHS.

Key responsibilities include:

- Deal with BPF matters as referred or escalated by the relevant NaMCF
- Provide advice and recommendations to the Chief Executives regarding the local operational application and implementation of the BPF.
- Provide advice and recommendations to service lines regarding the local operational application and implementation of the BPF
- Ensure all steps of the BPF process are followed correctly.
- Where the Chief Finance Officer or delegate declines funding for the nursing/midwifery FTE recommended by the NUM/MUM or other nursing/midwifery leader for a ward or unit, act as the body which provides advice and expertise and may make recommendations on the balance between the service model and the funded nursing and midwifery positions.

2. AUTHORITY

The BPF Steering Committee functions under the authority of the Executive Director of Nursing and Midwifery Services (or equivalent nursing position) and the nurses and midwives' agreement as implemented by NaMIG.

The BPF Steering Committee provides advice and recommendations relating to the local application, implementation and governance of the BPF to the Chief Executive and the Hospital and Health Board via the Executive Director of Nursing and Midwifery Services.

The BPF Steering Committee will utilise an evidence-based approach to inform and assist members during decision making processes.

3. GUIDING PRINCIPLES

The (insert name) HHS and the Queensland Nurses and Midwives' Union (QNMU) will adopt an interest-based problem solving (IBPS) approach to ensure the appropriate functioning of this committee. An IBPS approach aims to:

a) promote a relationship based on trust
b) Strengthen relationships
c) search for mutual gains while managing conflicts of interest, and
d) arrive at a fair outcome in an effective and efficient manner.

The BPF Steering Committee will be informed and guided by:

- *Nurses and Midwives (Queensland Health and Department of Education) Certified Agreement (EB10) 2018* and its replacement agreements
- *Nurses and Midwives (Queensland Health) Award - State 2015*
- The Business Planning Framework: a tool for nursing and midwifery workload management and supporting addenda
- (insert name) HHS Strategic Plan
- Queensland Health Strategic Plan
- *Hospital and Health Services Boards Act 2011*
- *Hospital and Health Boards Regulation 2012*
- *Nursing and Midwifery Workload Management Standard*

4. COMMITTEE REPORTING FRAMEWORK

The BPF Steering Committee will report at least annually to the Chief Executive and local NCF/NaMCF.

The following BPF key performance areas are to be included in reporting framework:

- Compliance
- Sign off by key stakeholders
- Evaluation of BPF process

5. MEMBERSHIP

5.1 Chair

Executive Director of Nursing and Midwifery Services (*or delegate*)

5.2 Members

Members are to be confirmed by the Chair. Recommended membership includes:

- Executive Director Nursing and Midwifery Services (or delegate)
- Chief Finance Officer (or delegate)
- BPF Coordinator
- QNMU organiser and other officials as required

Membership should be reviewed on an annual basis or as required.

5.3 Committee specialist advisors

The inclusion of specialist advisors may be agreed by the parties. These may include but are not limited to:

- Nurse/Midwifery Unit Manager/ Nurse/Midwife Manager
- QNMU workplace representative as relevant to the agenda
- Employees of specialty services within the HHS as relevant to the agenda

6. CONFIDENTIALITY

Members of the BPF Steering Committee may, from time to time, be in receipt of financial information that is regarded as organisationally sensitive, clinically confidential, or have privacy implications. Members acknowledge their responsibility to maintain confidentiality of all such information.

7. SECRETARIAT

Secretariat support will be provided by the Executive Director of Nursing and Midwifery Office.

8. MEETING FREQUENCY

The BPF Steering Committee will meet at least once per year in line with the budget cycle, and otherwise as required.

9. PAPERS, SUBMISSION AND REPORTS

Agenda papers, submissions and reports will only be accepted if submitted to the Secretariat

Appendix 9

Nursing and Midwifery Workforce Planning in emergent circumstances

On 29 January 2020 a public health emergency was declared in Queensland in response to the COVID-19 virus outbreak. Queensland Health's nursing and midwifery workforce responded rapidly, COVID testing services were established quickly, wards were adjusted, nurses and midwives were asked to work in different locations under different roster arrangements and vaccinations were rolled out. This response required rapid consultation, the creation of new service profiles and the adaptation of existing service profiles.

Fundamental to these changes was rapid respectful consultation and the development of services profiles to fit new and emergent situations. The following two elements are essential to the establishment of an adaptive, flexible nursing and midwifery workforce to address emergent demands.

ELEMENT 1

Rapid and respectful consultation

Early and ongoing engagement with nursing and midwifery employees and the QNMU was an integral part of Queensland's response to the COVID-19 pandemic and ensured that the workforce felt safe, informed and supported about the temporary changes that were required.

In any emergent circumstance, respectful and rapid consultation must occur in relation to nursing and midwifery workforce planning in emergent circumstances. Early engagement with nursing and midwifery employees and the QNMU will ensure the temporary changes required can be implemented efficiently and effectively. Usual consultation processes with employees and unions should be streamlined wherever possible to ensure employees are safe and Queenslanders are provided with the best possible care.

To support temporary changes to resource allocation, it would be appropriate to give consideration to:

- Whether more frequent or additional consultative mechanisms may be required.
- Active and appropriate engagement with the QNMU about the information and documentation that will be provided to support the implementation of temporary changes.
- The process for determining nursing and midwifery resource requirements, including any flexibility required to support temporary changes.

ELEMENT 2

Appropriate nursing and midwifery resource allocation is essential

Although the Seven Steps for Nursing and Midwifery Resource allocation is the industrially mandated tool for nursing and midwifery business planning and resource allocation, in emergent circumstances flexibility may be required to support temporary workforce changes.

As part of the nursing and midwifery workforce planning consideration should be given to the seven steps for nursing and midwifery resource allocation (as outlined in module 2). However, given a rapid response will be required in an emergent situation some of these steps may not be possible or the information not available. For example, the total annual production hours may not be available for the creation of an emergency response workforce.

In this circumstance, a principled approach to the seven steps is required. This approach should take into consideration the following key workforce planning principles:

Key principles

- Identification of the work that is required or estimated.
- The productive hours required to undertake the work.
- The skill mix required.
- The productive and non-productive hours.
- The conversion calculation of productive and non-productive hours to FTE requirements.
- The hours of work required by way of rosters, 24-hour services or otherwise.
- The development of a roster construct or constructs.

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qheps.health.qld.gov.au/hr/policies-agreements-directives/enterprise-bargaining/nurses-midwives