Nursing and Midwifery Office
Queensland

Business Planning Framework

A tool for nursing workload management

Primary and Community and Public Health Services Addendum

Queensland Government

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Disclaimer

The Primary and Community and Public Health Services Addendum has been prepared to promote and facilitate innovative and evidence-based workload and business planning practices. Information in this report is current at time of publication. Queensland Health does not accept liability to any person for loss or damage incurred as a result of reliance upon the material contained in this addendum. Material provided in this addendum does not replace or remove professional judgement or the professional care and duty necessary for each specific case. Work carried out in accordance with this addendum should be provided within the context of locally available resources and expertise. This addendum does not address all business planning models for nursing and midwifery practice. Individual managers and clinicians are responsible for:

- discussing issues in an environment that is culturally appropriate and which enables respectful confidential discussion
- advising nurses and midwives of their choice and ensuring informed consent is obtained
- meeting all legislative requirements and maintaining standards of professional conduct
- documentation in accordance with mandatory and local requirements.

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Contents

This addendum is a complementary document to the industrially endorsed *Business Planning Framework: a tool for nursing workload management* (2008) and does not represent change to existing organisational policy.

1.0 Introduction

The *Business Planning Framework: A tool for nursing workload management* (4th edition) is Queensland Health's mandated tool for managing nursing and midwifery workload, as documented within the *Nurses (Queensland Health) – Section 170MX Award 2003*. The Business Planning Framework (BPF) supports nurses and midwives in determining appropriate staffing levels to meet service requirements and assists them in evaluating the efficiency and effectiveness of their performance. The framework focuses on balancing the supply of services and resources with service demands through an individual unit or program based approach to business planning. The framework encourages nursing and midwifery staff to use quantitative and qualitative methods to analyse and determine human resource requirements, identify priorities and set service goals aligned with the organisation's strategic directions.

Within Queensland Health, a number of nursing and midwifery services were experiencing issues with the application of the BPF in certain speciality areas after its release in 2008. Consequently, a recommendation was made within the workforce planning strategy of the *Nurses and Midwives (Queensland Health) Certified Agreement (EB7) 2009* to further refine and develop the BPF in those specialty areas. This recommendation was made to ensure an effective workload management tool is available for all Queensland Health nurses and midwives.

The following speciality areas were nominated to participate in the BPF refinement process:

- mental health
- primary and community health
- public health
- perioperative services
- outpatient and ambulatory services.

Working parties and strategic groups were formed to engage clinical experts, nursing leaders, professional nursing bodies and finance officers in the development of strategies to improve application of the BPF in these areas.

This addendum aims to clarify the application principles of the BPF in each of the designated specialty services and to ensure consistent and transparent business planning practices.

2.0 Purpose of this addendum

The purpose of the Primary and Community and Public Health addendum is to improve the application and implementation of the BPF in primary and community and public health services throughout Queensland Health. It is recommended the addendum be used in conjunction with the existing BPF manual (2008) to support the analysis of specialty service demands, establish the nursing and midwifery resources required and evaluate service performance. This addendum will assist nursing and midwifery staff within primary and community and public health services to:

- determine and manage the unique circumstances within their service that require special consideration when applying the principles of the BPF
- articulate productive (direct and indirect) nursing and/or midwifery activity within their service
- understand the current and emerging demand considerations for nursing and/or midwifery hours within their service
- determine appropriate client and/or service complexity and activity measures to improve consistency in the statewide application of the BPF in primary and community and public health services
- review the application methods of the standard BPF multipliers in Queensland Health's primary and community and public health services
- develop productive and non-productive hour planning tables relevant to primary and community and public health services.

3.0 Business planning context

Workload management and workforce planning issues within primary and community and public health services are a global issue [1-10]. In general, the demand for primary and community and public health services has grown without adequate increases in infrastructure and workforce numbers [10-14]. Nurses and midwives within these services are highly autonomous, and staff frequently find themselves professionally isolated from peers which results in ongoing recruitment and retention concerns [10-14]. Current research confirms the increasing demands on primary and community and public health services are caused by systemic population changes driving the need to provide more effective and efficient healthcare services [2, 7, 8, 15]. These changes have resulted in many primary and community and public health services experiencing increased competition for human and financial resources, issues with funding distribution and dilemmas in workforce and service planning due to inadequate data collection [1, 3, 6, 12, 15, 16].

Determining optimal skill mix profiles for multidisciplinary teams within primary and community and public health services is also complicated [2, 10, 12, 15, 17, 18]. Primary and community and public health teams often require varying scopes of practice to successfully deliver a holistic range of services; hence many organisations have now adopted interchangeable job titles to assist matching skill mix with demand [2, 17, 18]. Interchangeable job titles can cause confusion regarding role delineations and make the selection of workload/caseload management tools difficult for individual disciplines in a multidisciplinary team. Current literature recommends using professional judgment and caseload data regarding client complexity and activity to reduce this confusion and improve the process of skill mix determination and workload management in a multidisciplinary team [9, 11, 14, 19].

Evaluating the capacity of workload or caseload management tools to accurately determine service requirements requires qualitative feedback from staff [1, 7-10, 12, 13]. The goal of a 'one size fits all' approach to workload management tools has not been achieved within primary and community and public health services due to the number and complexity of services offered [1, 2, 11, 13, 14]. Many of the tools available have been designed specifically for one type of service only and have not been tested for reliability and validity in other external services. An exception is the Community Client Need Classification System (CCNCS) which has undergone extensive reliability and validity testing in a variety of different primary and community services with encouraging outcomes [1, 11, 14]. The CCNCS is not currently used within Queensland Health, however a future trial may be beneficial as the tool has proven inter-rated and intra-rated reliability results in a wide range of primary and community settings [14].

When developing workforce and business plans for primary and community and public health services reference to only historical data is no longer considered best practice due to constant changes being experienced in both internal and external environments [2, 4, 6, 8-12, 18]. For example, primary and community and public health services will be impacted by changes in population demographics, healthcare policy and relevant legislation [2, 8-10, 12, 18]. The growing number of older persons, increases in chronic disease and other variables such as socioeconomic status, cultural background and birth/mortality rates will also impact the demand for primary and community and public health services [1, 2, 7, 8]. Currently, there is a high level of clinical and political support for the implementation of major healthcare strategies to increase the number and capacity of these services [10, 13, 15, 18, 19]. To achieve this goal, effective and collaborative business planning processes are required to positively influence the growth of primary and community and public health services.

4.0 Calculating productive nursing and midwifery hours

Productive nursing and midwifery hours include both direct and indirect clinical hours and are based on client complexity and service activity. Calculating the number of productive hours required for primary and community and public health services is the first step in managing nursing and midwifery workloads and establishing the total operating budget.

As outlined within the BPF manual (2008), direct nursing and midwifery hours relate to the activities nurses and midwives do that directly contribute to care provided to the client. Indirect hours relate to the activities nurses and midwives do for clients while not in direct contact within them. When calculating the total productive hours required for a service, it is important to ensure that all direct and indirect nursing and midwifery hours are included. Creating a list of standard direct and indirect nursing and midwifery activities in your unit or program will assist you to articulate and monitor the use of productive hours. Undertaking this process with unit staff encourages discussion about the activities being performed and may highlight where service efficiencies could be gained.

Information gathered about productive nursing and midwifery hours can be used to inform a number of service requirements such as staffing numbers, skill mix, models of care, education and training programs. It is important to document all nursing and midwifery activities relevant to your service, especially those considered unique to your unit or program. Defining productive hours increases the understanding of the nursing and midwifery work being performed and provides an excellent foundation when developing a service profile.

Figure 4.1 provides examples of productive and non-productive nursing and midwifery activities within primary and community and public health services. However, the table does not include every productive and non-productive nursing and midwifery activity performed and should be used in conjunction with the examples already provided in the BPF manual (2008, p.50-51).

Total productive hours = Direct clinical hours + Indirect clinical hours

Please note: Education and training programs provided within the clinical service/program/facility are considered indirect hours. Clinical hours associated with mandatory training and professional development leave for education purposes is allocated within non-productive hours.

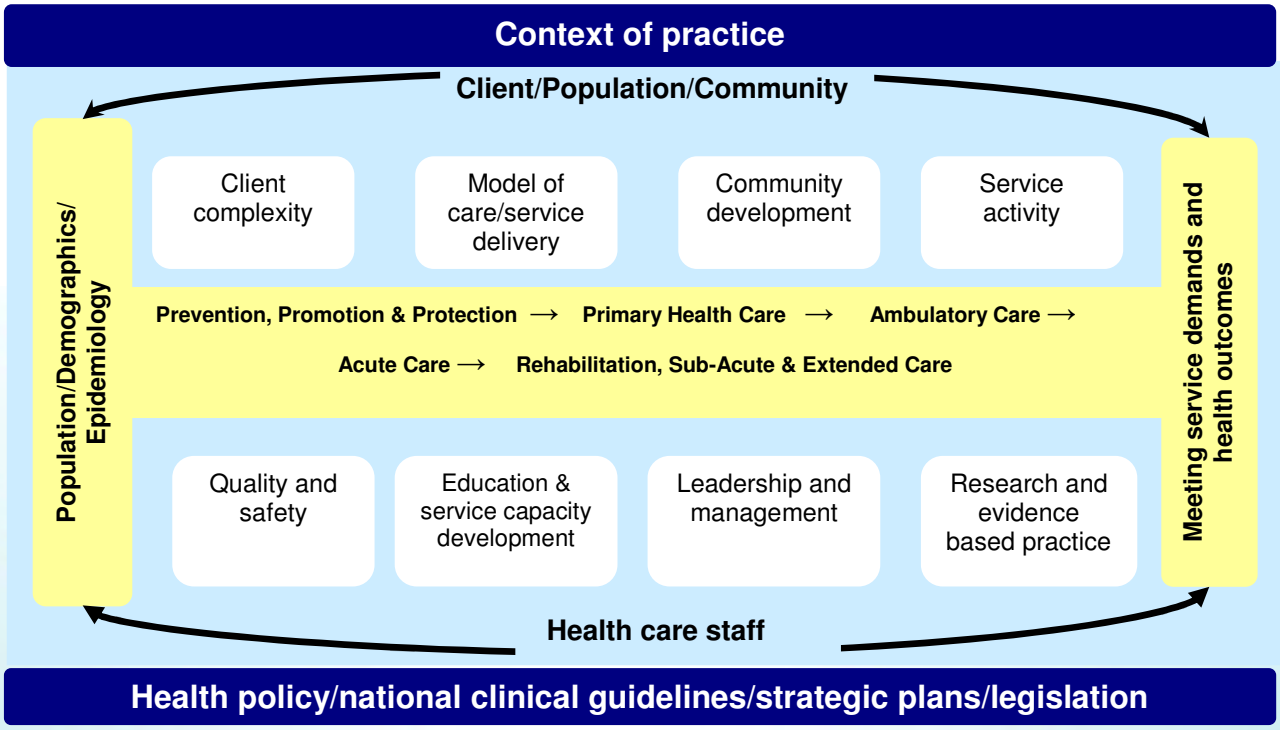
Figure 4.1: Examples of productive and non-productive nursing and midwifery hours
(Keller et al., 2004)

Activity	Direct	Indirect	Non-Productive	Examples
Surveillance				
Monitoring health events	x			Disease outbreaks, chronic disease, at risk populations
Health data collection and analysis	x			Pathology, client assessments, relevant documentation
Planning, implementing and evaluation of public health interventions	x			Disease outbreaks, reporting, health promotion
Disease and other health event investigation				
Gathering and analysis of health data	x			Health surveillance initiatives
Identifying threat and risks	x			Chronic disease risk factor prevention
Determining control measures	x			Providing public health advice and services
Outreach				
Locating individuals/population at risk	x			Immunisation programs
Providing or linking individuals/population with health services	x			Telehealth services
Screening				
Actions relating to identifying health risk factors	x			Health screening clinics, school screening programs
Case Finding	x			Health surveillance activities
Identifying individual and groups at risk and connect with resources	x			Health assessment clinics
Referral and follow up	x			Case management
Identifying and accessing resources for clients	x			Outreach clinics
Case management				
Coordinating and providing services	x			Case managers
Delegated functions				
Direct care	x			Providing ADL assistance, medication
Client clinics	x			Well baby clinics
Client appointments	x			Triaging, planning and scheduling appointments
Health teaching				
Individual/Group/Community sessions	x			Health education sessions
Counselling				
Planning and providing care to emotionally engage with client, family or populations	x			Client counselling, group/family counselling, school based programs
Consultation				
Planning and providing information and/or solutions to client family or populations	x			Home visits, school consultations, refugee health services
Collaboration				
Interacting with organisations to achieve the common goal of protecting and promoting the health of individuals and populations	x			Coordination of client care across a number of services
Community organising				
Working with communities to identify common health goals	x			Strategies/development activities required to achieve this goal
Advocacy				
Actions taken to focus on the development of a client's capacity to plead their own case or act on their behalf	x			Consenting to care, care planning
Social marketing				
Actions taken when using commercial marketing programs to improve a client /community health status	x			Health promotion/prevention activities, school programs, community liaison officers
Coalition building				
Service networking/collaboration		x		Developing connections with other agencies/service providers
Consultative forums		x		Community services forums/meetings/networks/ committees
Policy development and enforcement				
Committee participation		x		Internal and external committees
Quality audits/safety checks		x		Designated by legislation, policy or quality initiatives
Health service planning		x		Service capacity building and workforce planning
Clinical governance practices		x		Policy review and development
Staff development				
Clinical supervision		x		Professional support/learning, reflective practice, undertaking clinical supervision training
Mandatory/speciality training			x	Basic life support, Immunisation, Triple P etc
Orientation		x		QH, Organisational and Service Line
In-service training		x		Staff participation in in-services
Portfolio Management		x		Infection control, education, quality improvement
Professional development leave			x	Conferences, tertiary studies
Performance appraisal and development		x		Participation in PAD process and PIP
Preceptoring/mentoring/coaching		x		New staff induction, graduate staff, undergrad students
Succession planning		x		Workplace shadowing, high duties, secondments
Staff meetings		x		Meetings focused on staff and clinical environment
Evidence based practice		x		Research activities/service based projects
Miscellaneous				
Staff management data collation/analysis		x		Reviewing labour expenditure, sick leave management, monthly reporting
Travel		x		Travel associated with service delivery
Arranging/scheduling maintenance		x		car servicing, building repairs

5.0 Nursing and midwifery core demand considerations

To improve consistency and transparency in application of the BPF, specific demands on direct/indirect nursing and midwifery hours in primary and community and public health services have been categorised based on the most common and frequent demands being placed on productive and non-productive hours within these services. It is recognised that the core demands also influence the non-nursing and midwifery members of the multidisciplinary team and as such the level of role interactions should be discussed within the service profile. Figure 5.1 illustrates the relationships between all the categories which coexist and interact with each other. The demand categories should not to be considered in isolation. It is recommended that the core demand diagram is used as a reference source when developing local service profiles. This section includes explanatory notes about each category and a practical example of how to use the diagram is located in appendix A.

Figure 5.1: Primary and community and public health nursing and midwifery core demand considerations



5.1 Meeting service demands and health outcomes

Successfully meeting service demands and achieving positive health outcomes for consumers is a key goal of healthcare delivery. Developing service objectives, strategies and goals will assist in achieving a balance between service demand and supply in your area. It is important to articulate the core demands on your service and consider all influences when planning workforce numbers, skill mix profiles and material resources. Figure 5.1 illustrates a number of demands which regularly impact service delivery.

Before you start calculating the total productive hours required in your unit, address these demands in your service profile.

5.2 Population, demographics and epidemiology

Analysing your catchment area's epidemiology and population trends will provide useful insights into the categories and levels of primary and community and public health services required. Calculating the percentage of potential and known populations at risk will assist in workforce planning and management of nursing and midwifery workloads.

When reviewing the nursing and midwifery hours required to meet the service demands of a population, consider:

- demographics (e.g. growth rate, age, socioeconomic status)
- cultural considerations (e.g. diversity of population)
- morbidity/mortality (e.g. disease trends)
- birth rates (e.g. present and potential)
- transient trends (e.g. influence of industrial fly-in and fly-out populations)
- community expectations (e.g. are they realistic and deliverable?).

5.3 Context of practice

This demand considers all the *essential* elements of your service which determine and influence the framework of nursing and midwifery practice. Examining the context of practice within a service helps to highlight and explain the unique workload considerations for nursing and midwifery staff. Context of practice considerations include, but are not limited to:

- services offered
- catchment area coverage
- location of direct care delivery (eg. home, community centre, telehealth facilities, public area or hospital setting)
- resources available.

Conduct an environmental analysis of your service to help you articulate the workload impacts of this demand category on nursing and midwifery services. Additional information relating to environmental analysis criteria is available within the BPF manual (2008, p.18).

5.4 Health policy, clinical guidelines, strategic plans and health legislation

Health policy, clinical guidelines, strategic plans and legislation influence the level of demand placed on nursing and midwifery hours within primary and community and public health services. This demand can directly inform a number of service areas such as staffing numbers, quality standards, clinical protocols, and education and training requirements.

When developing a comprehensive service profile for the purpose of managing both direct and indirect nursing hours, refer to relevant health policies, clinical guidelines, strategic plans and legislation (see Section 8).

5.5 Research and evidence based practice

Undertaking research and evidence based practice activities will influence the number of indirect nursing and midwifery hours required for service delivery. Research and evidence based practice is essential to improve the standards of care that will produce better health outcomes for clients.

Include research and evidence-based practice demands in your service profile by:

- assigning an average allocation of nursing and midwifery hours to research and evidence-based practice within your regular roster or;
- accumulating hours for use during a designated period within the financial year.

5.6 Client complexity

Measuring client complexity within primary and community and public health services is a multifaceted process. Using only a quantitative approach to measure complexity is not always appropriate due to the variability in client cohorts and contexts of practice.

Use a combined approach to measure consumer complexity, including both quantitative information to monitor changes in service trends and complexity, and qualitative information based on professional experience.

Depending on the type of primary and community and public health service provided, client complexity can be expressed by calculating the nursing and midwifery hours required to manage the caseload of the service. Terms such as Nursing Hours per Occasion of Service (NHPOS), Nursing Hours per Activity Unit (NHPAU) or Nursing Hours per Patient Day (NHPPD) can be used to quantitatively describe service complexity. Refer to the BPF manual (2008, p.55) for more information relating to complexity/acuity levels.

Figure 5.6 provides examples of complexity identifiers suitable for trending in primary and community and public health services. This is not an exhaustive list and individual programs and services should identify the client/customer complexity identifiers relevant to their area.

Figure 5.6: Examples of client complexity identifiers

Caseload complexity identifiers
Contact frequency
Expected time allocation
Intervention type
Skill mix level required
Caseload maturity
Location of clients/customers

General complexity identifiers
Diagnosis
Stage of illness
Co-morbidities
Number of client/population risk factors
Socioeconomic status
Support networks
Level of intervention
Type of care package
Weighted Activity Units
Carer engagement

5.7 Service activity

Service activity measurements are often described as an 'occasion of service' or 'activity unit'. How you choose to measure activity in your area will depend on the type of service/s provided, funding models and data collection systems. Collaborate with the executive management and business teams to gain a thorough understanding of measuring and reporting activity in your service.

To measure service activity within primary and community and public health environments, you can count the number of service sessions delivered (eg. clinics) and/or the number of clients accessing a service.

Examples of commonly used activity measures are:

- home visits
- number of group sessions
- number of clients attending group sessions
- number of care packages
- number of referrals
- number of separations
- number of weighted separations (where applicable)
- occasions of service.

Please note this is not an exhaustive list as each individual service will have different circumstances.

You can also add descriptors about service accessibility, activity targets, waiting lists and scheduling arrangements to complement the primary activity data collected. Including relevant primary and secondary activity data within the environmental analysis section of your service profile will help you calculate the productive nursing and midwifery hours required by your service.

5.8 Models of care and service delivery

The demand placed on nursing and midwifery hours within primary and community and public health services will be affected by the model of care and/or service delivery model used. Describing how a model of care and/or service delivery model influences the productive hours within your unit is important when validating the hours required. Any change to the model of care or service delivery model will require an impact assessment on nursing and midwifery hours. Impact assessments should:

- relate not only to the hours themselves but also the clinical skill required to deliver them
- review factors relevant to your service including but not limited to the healthcare setting
- review internal health providers (eg. multidisciplinary teams)
- review external providers (eg. Disability Services Queensland).

When developing your annual service profile, review and evaluate the model of care and service delivery model in relation to the nursing and midwifery hours required.

5.9 Leadership and management

The leadership and management structure within your primary and community or public health service will impact the level of demand placed on productive nursing and midwifery hours. Leadership and management roles are closely linked with local service delivery

models and organisational strategic directions. Leadership and management demand considerations may include:

- skill requirements of leaders and managers
- service accountabilities and responsibilities
- human resource management (eg. recruitment, succession planning, business planning)
- organisational involvement (eg. committees, networking)
- organisational culture
- staffing profile (eg. categories, scope of practice, training and skills)
- interactions with multidisciplinary team members.

The type and level of influence from leadership and management demands will depend on a number of factors which may vary throughout the year. Review your local leadership and management structure on a regular basis.

5.10 Quality and safety

Quality and safety activities within primary and community and public health services are primarily governed by organisational policy and legislation. The productive nursing and midwifery hours of your service will be influenced by quality and safety processes, however the distribution of direct and indirect hours will depend on variables such as type of service delivered, staff competency required and location of unit or program.

Quality and safety concepts which can place demand on the number of productive nursing and midwifery hours required include:

- client safety
- staff safety
- mandatory/requisite training requirements
- policy development and review
- portfolios
- incident and near miss reporting and management.

As this is not an exhaustive list, a review of your local activities is recommended.

5.11 Education and service capacity developers

The demand on nursing and midwifery hours within primary and community and public health services is influenced by educational requirements and service capacity developers. Organisational policy, health registration boards and legislation provide guidelines about the level of influence these demands will have on your service eg. undergraduate and postgraduate training and the number of productive hours used to support these activities. Local human resource functions such as health informatics, recruitment, orientation, succession planning and rostering will also impact the number of nursing and midwifery hours required within your service. The correct allocation of indirect hours within the total productive hours calculations will ensure adequate nursing and midwifery coverage is achieved for your healthcare service.

Individual units should assess the level of influence these demands have on a yearly basis or whenever a change in service delivery occurs.

5.12 Community development

There are a variety of service delivery models within primary and community and public health environments providing care in settings ranging from prevention, promotion and protection services to rehabilitation and extended care areas. In most cases, the individual service models inter-relate and generate demand on productive hours within the connecting services.

Your unit or program may directly and/or indirectly interact with the following service areas:

- prevention, promotion and protection
- primary health care
- ambulatory care
- acute care
- rehabilitation, sub-acute and extended care
- private sector.

Consider the time staff commit to these activities and the allocation and documentation of hours used. When calculating the productive nursing and midwifery hours for your service, include all quantitative and qualitative information regarding community development activities.

6.0 Business planning considerations

The BPF manual (2008, p.18-27) outlines the general factors a service should consider when analysing the internal and external environment as part of developing their service profile. Specialty services such as those incorporated into the primary and community and public health sector will experience fluctuations in the level of influence from these factors and will need to adapt their services based on changes in the internal and external environments.

Each year, assess the impact/s of internal and external factors on your environment and make the necessary adjustments to the allocation of nursing and midwifery hours. Clearly document the type of impact and level of influence each consideration has on nursing and midwifery workloads within your service profile to support the productive hours required.

Figure 6.1 provides examples of several business planning considerations relevant to primary and community and public health services based on recognised internal and external influences.

Internal factors

1. Structural
2. Human resource management
3. Information technology and management
4. Performance

External factors

1. Policy/legal
2. Economic factors
3. Social/population factors
4. Technological factors
5. Research and evidence based practice

Figure 6.1: Business planning considerations for primary, community and public health services

Influences (Internal and External)	Service impact	Examples of workload management considerations
Locality of service **(Internal)** (metropolitan, regional, rural and remote)	The locality, type and catchment area of a service will influence the balance of service demand and supply. *Examples:* *Rural and remote primary and community and public health services need to review the workload impacts of delivering nursing care to isolated communities.* *Primary and community and public health services should consider how their context of practice impacts workload management.* *All services need to consider the impact of skill mix on optimal service delivery.*	***Direct nursing and midwifery hours*** : Calculation of clinical hours for direct care, allocation of clinical hours (rosters), selection of service activity/acuity measures, use of minimum safe staffing requirements
Type of service **(Internal)** (Prevention, promotion, and protection, primary health, ambulatory care, acute care and rehabilitation and extended care)		***Indirect nursing and midwifery hours***: Calculation of clinical hours for indirect care, travel, program/service based education, succession planning, quality activities and research
Catchment area **(Internal)** (local health and hospital networks versus statewide services)		***Workforce planning***: Development of strategic local/statewide workforce plans to inform fulltime equivalent (FTE) requirements, skill mix profiles and macro workforce planning formulas.
Nursing structure **(Internal)** (Roles, functions, accountabilities and relationships between all categories of nursing and midwifery staff)	The model of care selected for a service will influence the nursing and midwifery and support structures required. Nursing and midwifery roles and how they relate with other clinical roles will impact on the balance of service demand and supply. *Examples:* *In a multidisciplinary team, positions can be categorised to accommodate an interchangeable range of healthcare professionals such as psychologist, social workers and occupational therapists which can impact on the number of nursing and midwifery staff employed and their workloads.* *Within rural and remote communities access/support from other services may be limited. Nurses/midwives within these environments are required to practice autonomously at an advanced level. The classification of positions within these communities will reflect this requirement.* *Providing support to other primary and community and public health services will impact on nursing and midwifery workloads.*	***Direct nursing and midwifery hours***: Calculation of clinical hours for direct care provided in and outside the service, position classifications for the clinical hours required, allocation of clinical hours (rosters), selection of optimal service activity/acuity measures, safe staffing levels.
Support structure **(Internal)** (Providing support to other services and/or receiving support from other services)		***Indirect nursing and midwifery hours:*** Calculation of clinical hours for non-direct care networking/collaboration (internal and external) travel, staff training, professional development, quality activities and research.
Model of care **(Internal)** (Multidisciplinary teams)		***Workforce Planning***: Development of role descriptions and skill mix profiles suitable for the context of practice (internal and external) to the service. Devising operational and organisational structures to support staff in applying the chosen model of care. Development of operational workforce plans to inform FTE requirements and macro workforce planning formulas.
Policy/legal factors **(External)**	Changes in health policy and legislation will influence service delivery and staff requirements. Common change drivers include government (commonwealth/state), licensing organisations, professional and industrial groups. *Examples:* *Legislation – Alcohol and drug related Acts* *Commonwealth - Primary health reform* *Queensland Health – strategic plans and directions*	***Direct nursing and midwifery hours***: Calculation of clinical hours for direct care (based on available funding), position classifications for the clinical hours required, registration commitments for clinical hours, allocation of clinical hours (rosters), selection of optimal service activity/acuity measures, and use of minimum staffing requirements.
Economic factors **(External)**	Funding policies, the national economy and the interface between public and private health care providers will influence the primary and community and public health services delivered and the number of staff required. *Examples:* *Primary health reform initiatives are providing funding increases for specific services which results in new, additional or expanded services. The skill and number of nurses/midwives required will change.*	***Indirect nursing and midwifery hours:*** Calculation of hours for indirect and non-productive activities such as policy development, business planning, community interface, travel, staff training, professional development, quality activities and research.

Social/population factors **(External)**	Population demographics, cultures and community expectations will inform the types of primary and community and public health services offered, how they are offered, staffing numbers and skill mix required for service delivery. *Examples:* *A community with a high proportion of non-English speaking people will impact the number and type of clinical hours required to deliver healthcare services.*	***Workforce planning***: Development of role descriptions and skill mix profiles suitable for the context of practice (internal and external) to the service. Devising operational and organisational structures to support staff in applying the chosen model of care. Development of operational workforce plans to inform FTE requirements and macro workforce planning formulas.

7.0 Information systems and collections

Accessing relevant information for your primary and community and public health service is imperative when applying BPF principles. Figure 7.1 outlines the main information systems suitable for business planning in primary and community and public health services.

Figure 7.1: Primary, community and public health services information systems

Information System	Purpose	Informs
Community Health Information Management Service(CHIMS)	CHIMS is a client registration, referral and appointment scheduling system that has been specifically designed for community health services in the Metro South Health Service District. It is intended to improve data collection reporting and information sharing across the district. http://qheps.health.qld.gov.au/loganb/itsys/chims-home.htm	• Activity • Workforce • Services • Performance • Client demographics
Hospital Based Corporate Information System (HBCIS)	Queensland Health's enterprise patient Administration System, capturing and managing both admitted and non-admitted patient, clinical and administrative data. http://qheps.health.qld.gov.au/id/	• Activity • Workforce • Services • Performance • Client demographics • Referral/waitlist • Financial reporting
ERIC (not an acronym)	Primarily is a storage and retrieval system. ERIC is a step towards progression to the electronic medial health record. It combines electronically converted images of paper records and up to date data interfaced from clinical system. http://qheps.health.qld.gov.au/loganb/itsys/eric-about.htm	• Activity • Workforce • Services • Performance • Client complexity
PractiX	Records data relating to client demographic, clinical notes, investigations, correspondence and billing requirements. http://qheps.health.qld.gov.au/loganb/itsys/practix-home.htm	• Activity • Workforce • Services • Performance
Ferret	A primary health care patient information and recall system. Ferret assists staff care for clients and manages the services they provide such as whole of life care plans, facility management and appointments, chronic disease register, Medicare billing, service activity and reporting. http://qheps.health.qld.gov.au/phciss/html/how_to_guides.htm	• Activity • Workforce • Client complexity • Client trends • Performance • Funding reporting
Alcohol, Tobacco and Other Drug Services Information Systems (ATODS)	Allows users to manage, maintain and report on information about clients and their treatment episode. http://qheps.health.qld.gov.au/id/html/apps_systems.htm	• Client trends • Client complexity • Client outcomes • Performance
Aged Care Evaluation (ACE)	Client information and management system for Aged Care Assessment Teams http://qheps.health.qld.gov.au/id/ace/ace_home.htm	• Activity • Workforce • Services • Expenditure • Client trends • Client complexity • Client outcomes

Public Health Information and Clinical Services Solution (PHICSS)	A single enterprise-wide electronic health record for Queensland Health's Public Sexual Health and HIV/AIDS clinics, Tuberculosis Clinics, Mobile Women's Health Program and Family Planning Queensland. http://www.health.qld.gov.au/phicss/default.asp	• Activity • Workforce • Services • Client trends • Client complexity • Client outcomes
Notifiable Conditions System (NOCS)	Maintains both a notification history and address history as well as one or many supporting clinical and laboratory results per notification. It shares people and addresses with VIVAS http://qheps.health.qld.gov.au/ph/documents/cdb/24270.pdf	• Activity • Client trends • Client outcomes • Workforce • Program planning
Vaccination Information and Vaccination Administration System (VIVAS)	VIVAS is a register of vaccination events for all childhood vaccines given in Queensland through the free National Immunisation Program Schedule and is an automated distribution system http://www.health.qld.gov.au/immunisation/health_professionals/vivas.asp	• Activity • Program planning • Workforce planning • Client trends • Performance
Australian Childhood Immunisation Register (ACIR)	The national register administered by Medicare Australia that records details of vaccinations given to children under seven years of age. http://www.medicareaustralia.gov.au/public/services/acir/about.jsp	• Activity • Client trends • Workforce • Program planning • Funding
Primary Related Incident Management and Evaluation System (PRIME)	Management of clinical incidents and health care complaints http://connect.health.qld.gov.au/prime/	• Performance • Service safety • Client outcomes
Decision Support System (DSS Panorama)	Provides summary data reports displaying aggregate expenditure, budgets, variances and balances for cost centres and account codes for services. Reports are available for agency use, overtime, leave/ absenteeism, position occupancy and work centres. http://dss.health.qld.gov.a u/	• Workforce • Expenditure • Performance

Information systems such as CHIMS, PRACTIX, PHICSS, FERRET, HBCIS, PRIME and DSS provide a wide range of information about consumers, workforce and service performance which assist service profile development. Systems such as ERIC collect and store client information from a number of sources and are able to collate reports about service activity, client complexity and health outcomes.

Use reports derived from information systems and data collections as part of the environmental analysis of your service and reference them within your service profile.

Current information systems may not always capture all the data you need to conduct a comprehensive environmental analysis of your nursing and midwifery service. In this situation, you can develop local spreadsheets to collect service demand data specific to your area. If developing local spreadsheets, allocate time for this activity within your productive hours and adhere to data collection standards and all relevant Queensland Health policies regarding information management. All data sources must be referenced and available for review by other team members involved in business planning, have senior management approval and be included in the calculation of productive clinical hours.

Data collection supports the measurement of service performance both financially and non-financially. As per the BPF manual (2008, p.87) a balance scorecard uses service objectives and relevant measurements to monitor the progress of performance within a service. A balance scorecard assists comparisons to be made with other services and highlights both successful and unsuccessful performance trends. The key performance indicators within the balances scorecard should be linked with service objectives based on clients, staff and the greater organisation. Figure 7.2 provides examples of key performance indicators suitable for primary and community and public health services.

Figure 7.2: Performance examples for primary, community and public health services

Client indicators	Staff indicators	Service/organisation indicators
Access	Absenteeism	Activity/Occupancy
Complaints/compliments	Education hours	Budget integrity
Incidents (adverse events following immunisation)	Re-deployment	Cost per weighted activity unit (WAU)
Waiting times	New - established staff ratio	Leave usage/accumulation
Readmission rates (time framed)	Satisfaction surveys	NHPPD/NHPOS/NHPAU
Average length of stay/no. complex clients	Turnover rates	Policy issues
Patient follow ups (time framed)	Workcover claims	Quality and safety initiatives/ audits/issues
Completed discharge summaries (time framed)	Workload grievances	Skill mix profile
Response times, interventional and protocol enactments	Competency compliance	Workforce data - vacancy

8.0 Reference documents

Reference documents can originate from local, state, national and international sources and are authored by organisations such as healthcare services, governments, specialist interest groups, colleges and universities. References are important in validating the delivery of any service and are often useful when planning and/or managing change in any healthcare environments.

A number of reference sources are available to guide and support the development of service profiles in primary and community and public health services. The suitability of reference sources will depend on your individual area and should be selected on the level of influence they have on the service delivery. For example, documents based on legislation will have the highest level of influence as they are mandated by law. Figure 8.1 lists reference sources appropriate for business planning in primary and community and public health services.

Figure 8.1: Primary, community and public health business planning reference sources

Queensland Health reference sources
Community Health Information Management Service Quality Plan 2010-2011 http://qheps.health.qld.gov.au/search/default.asp?
Health Promoting Schools Framework http://www.health.qld.gov.au/healthyschools/documents/29331.pdf
Home Visiting Safety: Metro North http://qheps.health.qld.gov.au/metronorth/pchs/nonclinical/alphalist.htm
Infection Control Management Plan Community and Primary Health: Metro South http://shsd-log-p804:7007/PPWI/ContainerLogin.jsp
Integrated Risk Management Procedure for Community and Primary Health Services http://shsd-log-p804:7007/PPWI/ContainerLogin.jsp
Line Manager Responsibility of Nursing Staff in Community and Primary Health Service excluding Residential Aged Care Nursing Staff http://shsd-log-p804:7007/PPWI/ContainerLogin.jsp
New Clinical Interventions and Technology – Safe introduction in Community and Primary Health Services http://shsd-log-p804:7007/PPWI/ContainerLogin.jsp
Queensland Health Dual Diagnosis Policy http://www.health.qld.gov.au/atod/documents/dual_diagnosis.pdf
Queensland Needle and Syringe Policy http://www.health.qld.gov.au/qhpolicy/docs/pol/qh-pol-317.pdf
Queensland Drug Action Plan 2011-2012 http://www.health.qld.gov.au/atod/documents/qld-drug-action-plan.pdf Queensland Strategy for Chronic Disease 2005-2015 http://www.health.qld.gov.au/chronicdisease/documents/strat2005to15_full.pdf
Queensland Health Primary and Community Health Information Management Strategy 2010 http://qheps.health.qld.gov.au/id/html/strat_directions.htm

This addendum is a complementary document to the industrially endorsed *Business Planning Framework: a tool for nursing workload management* (2008) and does not represent change to existing organisational policy.

Queensland Health Companion document: Primary and Community Health Information Management Strategy 2010 http://qheps.health.qld.gov.au/id/html/strat_directions.htm
Queensland Health Protection Strategic Directions 2010-2013 http://www.health.qld.gov.au/sexhealth/
Queensland Health HIV, Viral Hepatitis and Sexually Transmissible Infections (STI's) Clinical Services Policy http://qheps.health.qld.gov.au/policy/docs/pol/qh-pol-348.pdf
Queensland Health HIV, Hepatitis C and Sexually Transmissible Infections Strategy 2005-2011 http://www.health.qld.gov.au/sexhealth/
Queensland Health Strategic Plan for Multicultural Health 2010-2011 http://www.health.qld.gov.au/multicultural/policies/policies_plans.asp
Queensland Health Patient Safety and Quality Plan 2008 – 2012 http://www.health.qld.gov.au/cpic/documents/s&q_patient_plan_v4.pdf
Queensland Health Sexual Health and Clinical Services Privacy Policy http://www.health.qld.gov.au/qhpolicy/docs/pol/qh-pol-311.pdf
Queensland Health Strategic Plan 2011-2015 http://www.health.qld.gov.au/about_qhealth/strat_plan/strat-plan2011-15.pdf
Queensland Plan for Mental Health 2007-2017 http://www.health.qld.gov.au/mentalhealth/abt_us/qpfmh/p4.asp
Workload Management: Metro North http://qheps.health.qld.gov.au/metronorth/pchs/nonclinical/alphalist.htm
State reference sources
Child Protection Act 1999 http://www.legislation.qld.gov.au/LEGISLTN/CURRENT/C/ChildProtectA99.pdf
Child Protection Regulation 2000 http://www.legislation.qld.gov.au/Search/
Health (Drugs and Poisons) Regulation 1996 http://www.legislation.qld.gov.au/LEGISLTN/CURRENT/H/HealDrAPoR96.pdf
Home and Community Care Workforce Profile 2010 http://www.health.qld.gov.au/hacc/publications/haccworkforceprof.asp
Nurses and Midwives (Queensland Health) Certified Agreement (EB7) 2009 http://www.health.qld.gov.au/eb/documents/eb7_nurses_final.pdf
Public Health Act 2005 http://www.legislation.qld.gov.au/Search/isysquery/e41f8ac9-92c9-4277-b0eb-f4197b008bd0/11-20/list/
Public Health (Infection control for personal appearance services) Act 2003 http://www.legislation.qld.gov.au/Search/
Preventable Chronic Disease Targets Delivery Plan 2011-2012 http://www.health.qld.gov.au/chronicdisease/documents/tdp_chronic_disease2.pdf
Queensland Criminal Code Act 1899 www.legislation.qld.gov.au/LEGISLTN/CURRENT/C/CriminCode.pdf
Queensland Health Nurse and Midwives Award – State 2011 http://www.qirc.qld.gov.au/resources/pdf/awards/q/q0090_160311.pdf
Queensland Nursing Act 1992 http://www.legislation.qld.gov.au/LEGISLTN/REPEALED/N/NursingA92_04C_080801.pdf
National reference sources
Aboriginal and Torres Strait Islander Health Performance Framework http://www.health.gov.au/internet/main/publishing.nsf/Content/oatsih_heath-performanceframework
Australian Bureau of Statistics http://www.abs.gov.au/ausstats
Australian Immunisation Handbook 2008 http://www.ncirs.edu.au/research/vaccine-policy/handbook/index.php
Australian Government Department of Health and Ageing http://www.health.gov.au/internet/main/publishing.nsf/Content/Aged+care+services-1
Australian Institute of Family Studies http://www.aifs.gov.au/
Australian Institute of Health and Welfare http://www.aihw.gov.au/
Australian Safety and Quality Framework for Health Care 2010 http://www.safetyandquality.gov.au/internet/safety/publishing.nsf/Content/NSQF
Delirium Care Pathways http://www.health.gov.au/internet/main/publishing.nsf/Content/Delirium-Care-Pathways
National Program Guidelines for the home and Community Care Program http://www.health.qld.gov.au/hacc/policy-guide/natstandguidehacc.asp
Nursing and Midwifery Board of Australia (Australian Health Practitioner Regulation Agency - APHRA) http://www.nursingmidwiferyboard.gov.au/
Primary Health Care Research, Evaluation and Development Strategy Phase three 2010-2014 http://www.health.gov.au/internet/main/publishing.nsf/Content/phcred-strategy-publication
Workplace Relations Act 1996 http://www.workplace.gov.au/workplace/Publications/Legislation/WRAct/

This addendum is a complementary document to the industrially endorsed *Business Planning Framework: a tool for nursing workload management* (2008) and does not represent change to existing organisational policy.

9.0 Business planning steps

Before deciding on the number and skill mix of nursing and midwifery hours required, you need to calculate the total productive hours required for your unit or program. The BPF manual (2008, p.46-84) recommends the following seven steps when establishing the total nursing and midwifery operating budget:

Step 1 **Calculate total productive nursing and midwifery hours**
Step 2 **Calculate total annual productive nursing and midwifery hours to deliver service**
Step 3 **Determine skill mix/category of nursing and midwifery hours**
Step 4 **Convert productive nursing and midwifery hours into FTE**
Step 5 **Calculate non-productive nursing and midwifery hours**
Step 6 **Convert FTE into dollars**
Step 7 **Allocate nursing and midwifery hours to service requirements.**

These seven steps are explained in detail within this section.

9.1 Step 1: Calculate total productive nursing and midwifery hours

When calculating the total productive nursing and midwifery hours required within your unit or program, *it is important to consider client complexity and service activity.* A definite or expected change in either client complexity and/or service activity should be highlighted in the environmental analysis section of the service profile as it may result in variations to the number or type of nursing and midwifery hours needed.

The BPF manual (2008) provides examples of four possible methods to assist in determining the productive hours for your service:

1. Historical payroll or rostering information
2. Applying a base staffing model (eg. minimum safe staffing levels)
3. Benchmarking
4. Patient dependency systems.

This addendum calculates productive hours using payroll and rostering information. Information regarding the calculation of productive nursing and midwifery hours using benchmarking, base staffing models and patient dependency systems is available within the BPF manual (2008).

To calculate productive hours, review the number of direct and indirect nursing and midwifery hours used. As historical payroll data does not distinguish between direct and indirect hours, you will need to use alternative reference sources to provide the percentage of direct and indirect nursing and midwifery hours being used. For information about the use of indirect hours, refer to local records, patient dependency systems, education/training databases and organisational policies. To account for direct hours, refer to staffing rosters, overtime shifts and extra nursing and midwifery hours paid reports. Most data collected from these sources will be retrospective and will require further analysis to assess the level of impact, if any, on the future allocation of nursing and midwifery hours.

Data sources for these fictional examples include DSS, HBCIS and local spreadsheets.

Example 1: Calculating productive hours for the Alcohol and Drug Service

Average rostered direct nursing hours per month (individual service) = 112 shifts = 856 hours

Average rostered indirect nursing hours per month = 20 shifts = 160 hours

Average productive nursing hours (paid) used per month = 1016 hours

Average hours per occasion of services = $\frac{\text{Total no. nursing hours worked * (in a specified period)}}{\text{Total no. of occasion of service (in a specified period)}}$

Average hours per occasion of service = $\frac{1016}{607}$ = 1.67 NHPOS (direct and indirect)

Plus group sessions = 20 hours per month = $\frac{20}{16}$ = 1.25 NHPAU

Total productive nursing hours required/month = individual service + group sessions

= 1016 hours + 20 hours

= 1036 hours

Projected productive hours for four additional group sessions per week

Additional staffing required = 1.25 direct nursing hours per session x 4 session = 5 hrs per week

Additional staffing hours required per month = 20 hours

Average direct group session nursing hours per month = 20 hours (established) + 20 hours (new)

= 40 hours

Total projected productive nursing hours required/month = individual services + group sessions

= 1016 hours + 40 hours

= 1056 hours

Example 2: Calculating productive hours in a Child and Youth Community Health Service including walk in clinic, scheduled clinic and school based programs

Clinic X – walk in

Frequency of clinic = weekly (48 weeks per year)

Average length of clinic = 2 hours

Average client per clinic = 10 clients

Average nursing hours per clinic = 4 hours per clinic

Average nursing hours required per month = average nursing hours/clinic x frequency x 4 weeks

= 4 hours x 1 per week x 4 weeks

= 16 nursing hours per month

Average nursing hours per clinic = $\frac{\text{Total no. nursing hours worked x (in a specified period)}}{\text{Total no. Clinics (in the corresponding period)}}$

Average nursing hours per clinic = $\frac{16}{4}$ *= 4 hours*

Clinic Y – scheduled

Frequency of clinics = 3 clinics per week (48 weeks per year)

Average length of clinics = 4 hours

Average clients per clinic = 32.8

Average nursing hours per clinic = 16.4

Average nursing hours (monthly) per clinic = average nursing hours/clinic x frequency x 4 weeks

= 16.4 hours x 3 clinics x 4 weeks

= 196.8 nursing hours per month

Average nursing hours per occasion of service = Total no. nursing hours worked x (in a specified period) / Total no. occasions of service (in the corresponding period)

Average nursing hours per occasion of service = 196.8 / 393.6 = 0.5 NHPOS

Home Visiting Program

Frequency = 6 days per week (50 weeks per year)

Average number of visits per day (2010/11) = 20.08

Average nursing hours per day (including travel) = 37.95

Average nursing hours (monthly) per clinic = average nursing hours/day x frequency x 4 weeks

= 37.95 hours x 6 days x 4 weeks

= 910.8 nursing hours per month

Average nursing hours per occasion of service = Total no. nursing hours worked x (in a specified period) / Total no. occasions of service (in the corresponding period)

Average nursing hours per occasion of service = 910.08 / 481.92 = 1.89 NHPOS

School Program

Frequency = 5 days per week (41 weeks per year)

Number of schools in program = 6

A rated schools = 3

B rated schools = 2

C rated schools = 1

Average weekly *nursing* hours (A rated) = 219.5

Average weekly *nursing* hours (B rated) = 144.7

Average weekly *nursing* hours (C rated) = 52.2

Average student *contacts* per week (A rated) = 201.4

Average student *contacts* per week (B rated) = 134

Average student *contacts* per week (C rated) = 52.2

Average nursing hours (monthly) per school = average nursing hours/week x 4 weeks

A rated school = 219.5 hours x 4 weeks

= 878 nursing hours per month

B rated school = 144.7 x 4 weeks

= 578.8 nursing hours per month

C rated school = 52.5 x 4 weeks

= 210 nursing hours per month

*Average nursing hours per occasion of service = Total no. nursing hours worked * (in a specified period) / Total no. occasions of service (in the corresponding period)*

Average nursing hours per occasion of service (A rated School) = $\frac{878.0}{805.6}$ = 1.09 NHPOS

Average nursing hours per occasion of service (B rated School) = $\frac{578.8}{536.0}$ = 1.08 NHPOS

Average nursing hours per occasion of service (C rated School) = $\frac{210.0}{208.8}$ = 1.01 NHPOS

9.2 Step 2: Total annual productive nursing and midwifery hours to run service

To calculate the total annual productive hours required for a service, the average hours per unit of activity is multiplied by the total number of activities per year.

Total annual productive hours = average hours per unit of activity x total no. of activities per year

Using the examples provided previously for the Alcohol and Drug Service and the Child and Youth Community Health Service, the total annual productive hours are as follows:

Example 1: Alcohol and Drug Service

Individual services
Annual productive hrs = Average NHPOS x Total no. Occasions of Service per year
Annual productive hrs = 1.67 NHPOS x (607 x 12) = 12,164 hours/year

PLUS

Group sessions
Annual productive hrs = Average NHPAU x Total no. activities per year
Annual productive hrs = 1.25 NHPAU x (16 x 12) = 240 hours per/year
Total annual productive hours = individual services + group sessions
Total annual productive hrs = 12,164 + 240 = 12,404

Example 2: Child and Youth Community Health Service

Clinic X – walk in
Total annual productive hrs = Average NHPAU x Total clinic no. per year
Total annual productive hrs = 4.0 NHPAU x (1 x 48 weeks) = 192 hours/year

PLUS

Clinic Y - scheduled
Annual productive hrs = Average NHPOS x Total no. Occasions of Service per year
Annual productive hrs = 0.5 NHPOS x (98.4 x 48 weeks) = 2,362 hours per/year

PLUS

Home Visiting Program
Annual productive hrs = Average NHPOS x Total no. Occasions of Service per year
Annual productive hrs = 1.89 NHPOS x (120.48 x 50 weeks) = 11,385 hours per/year

PLUS

School Program
'A' Rated School
Annual productive hrs = Average NHPOS x Total no. Occasions of Service per year
Annual productive hrs = 1.09 NHPOS x (201.4 x 41 weeks) = 8,257 hours per/year

'B' Rated School
Annual productive hrs = Average NHPOS x Total no. Occasions of Service per year
Annual productive hrs = 1.08 NHPOS x (134 x 41 weeks) = 5,934 hours per/year

'C' Rated School
Annual productive hrs = Average NHPOS x Total no. Occasions of Service per year
Annual productive hrs = 1.01 NHPOS x (52.2 x 41 weeks) = 2,162 hours per/year
Total of School Program nursing hours = 16,353

Total annual productive hours = clinic x + clinic y + home visiting + school programs

Total annual productive hours = 192 +2,362 + 11,385 + 16,353 = 30,292

9.3 Step 3: Determine skill mix/category of nursing and midwifery hours

After you have calculated the annual productive nursing and midwifery hours, you need to determine the skill mix required to meet service demand. To determine the skill mix required, refer to your service profile. The BPF manual (2008, p.64) recommends you conduct the following reviews when establishing the skill mix profile for your service:

- analysis of client needs
- scope of each nursing and midwifery category
- health outcomes desired.

When client needs and health outcomes have been matched with suitable nursing and midwifery skills, the allocation of hours required can be achieved. The following examples demonstrate this step based on operational hours and service preferences.

Example 1: Alcohol and Drug Unit

Rostering preferences:
NUM – day shifts rostered Monday to Friday
Clinical Nurses – minimum of 1 CN on every shift (morning and evening) Monday to Sunday
RN – to cover designated shifts requirements (morning and evening) Monday to Sunday

Nurse Grades	Hours/week
Grade 7 (NUM, CNC, NE) – 7.6 hours per day 5 days/week	38
Grade 6 (Clinical Nurse) - 16 hours per day 7 days/week	112
Grade 5 (Registered Nurse) – 16 hours per day 7 days/week	112
Grade 4 (Enrolled Nurse)	NA
Total	**262**

Example 2: Child and Youth Community Health Services

Rostering preferences:
NUM – day shifts rostered Monday to Friday
Clinical Nurses – minimum of 1 CN on every shift per service Monday to Friday for all programs except home visiting which operates Monday to Saturday
RN/EN – to cover designated shifts Monday to Friday for all programs except home visiting which operates Monday to Saturday

Nurse Grades	Hours/week
Grade 7 (NUM) – 7.6 per day 5 days/week	38
Grade 6 (Clinical Nurse) – 66 hours per day 7 days/week	120
Grade 5 (Registered Nurse) – 116 hours per day 7 days/week	300
Grade 4 (Enrolled Nurse) – 16 hours per day 7 days/week	148
Total	**606**

9.4 Step 4: Convert productive nursing and midwifery hours into FTE

Expressing your staffing requirements in terms of FTE allows comparisons between services in relation to their staffing requirements and associated costs. When determining the FTE numbers for your unit or program, you will need to know the nursing and midwifery hours required per **week** (calculated during step 3). To calculate the number of FTE required, use the formula below:

$$\text{FTE} = \frac{\text{Number of hours worked per week}}{38}$$

Example 1: Alcohol and Drug Unit

$$\frac{262 \text{ nursing hours per week}}{38} = 6.89 \text{ FTE}$$

Nurse Grades	Hours/week	Weekly FTE (Column 1 /38)
Grade 7 (NUM, CNC, NE) – 7.6 hours per day 5 days/week	38	1.0
Grade 6 (Clinical Nurse) - 16 hours per day 7 days/week	112	2.95
Grade 5 (Registered Nurse) – 16 hours per day 7 days/week	112	2.95
Grade 4 (Enrolled Nurse)	NA	NA
Total	**262**	**6.90**

Example 2: Child and Youth Community Service

$$\frac{606 \text{ nursing hours per week}}{38} = 15.95 \text{ FTE}$$

Nurse Grades	Hours/week	Weekly FTE (Column 1 /38)
Grade 7 (NUM) – 7.6 per day 5 days/week	38	1.0
Grade 6 (Clinical Nurse) – 66 hours per day 7 days/week	120	3.16
Grade 5 (Registered Nurse) – 116 hours per day 7 days/week	300	7.89
Grade 4 (Enrolled Nurse) – 16 hours per day 7 days/week	148	3.89
Total	**606**	**15.94**

9.5 Step 5: Calculate non-productive nursing and midwifery hours

After the total productive FTE requirements have been determined, you can calculate non-productive nursing and midwifery hours. Non-productive hours include all leave and mandatory training requirements and assist in calculating on-costs such as penalty payments and allowances. To determine the leave replacement hours and costs associated with non-productive entitlements, you will need to convert the hours into a daily percentage.

For example, over a year (52 weeks), a three shift full-time position will work 38 hours per week and be entitled to six weeks annual leave. To calculate the on-costs percentage for this position, you will need to calculate the total annual nursing and midwifery hours by multiplying the hours worked per week by the weeks in a year.

Total annual nursing and midwifery hours required = 38 hours/week x 52 weeks/year = 1976

To calculate the daily percentage, divide the nursing and midwifery hours worked by the annual nursing and midwifery hours and multiply this number by 100.

Daily percentage per FTE = (7.6 / 1976) x 100 = 0.38%

To determine the percentage cost for six weeks of annual leave, multiply the daily hours worked by the number of leave days, then divide that number by the total annual nursing and midwifery hours and multiply by 100.

Annual leave percentage (6 weeks) = (7.6 x 30)/1976 = 0.1154 x 100 = 11.54%

The following tables provide quick reference sources and examples of on-costs calculations in your service. More examples are available in the BPF manual (2008, p.67-74).

Non-Productive Multiplier Percentages

Days	No. of hours	Percentage/FTE
1	7.6	0.38%
2	15.2	0.77%
3	22.8	1.15%
4	30.4	1.54%
5	38	1.92%
6	45.6	2.31%
7	53.2	2.69%
8	60.58	3.08%
9	68.4	3.46%
10	76	3.85%

Non-Productive Daily Percentages

Item	Amount	Percentage/FTE
Annual Leave	6 weeks 5 weeks 4 weeks	11.54% 9.6% 7.6%
Sick leave	Based on QH previous year average	4.00 *
Professional development	3 days	1.15%**
Penalties	Average of use within your service	24 %***

** Example only - refer to your business team annually for the statewide sick leave average*

*** Example only - refer to Queensland Health policy for the relevant professional development leave entitlements relevant to your service*

**** Example only - refer to your business team annually for the average penalty percentage used within your service*

The process of calculating non-productive nursing and midwifery hours in FTE using service examples is provided below. For the broad purposes of this addendum, the examples offered include sick leave FTE in the total FTE. Transferring this practice to your area will depend on local recruitment strategies and business rules. It is recommended that you discuss these strategies with your nursing and midwifery and business teams.

Example 1: Alcohol and Drug Unit

Productive		Non-Productive					
Grade	FTE	Annual Leave (5/6 weeks)	Sick Leave (4%)	Professional Development Leave (PDL) (1.15%)	Mandatory Training		Total FTE
					Average 1 new staff headcount (4.23%)	Existing 8 staff headcount (1.92%)	
7	1.0	0.096 (5)	0.04	0.012			1.15
6	2.95	0.28 (5)	0.12	0.034			3.38
5	2.95	0.28(5)	0.12	0.034	0.04	0.15	3.57
3	0	0	0	0			0
1	0	0	0	0			0
Total	**6.90**	**0.65**	**0.28**	**0.08**	**0.04**	**0.15**	**8.1**

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

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

Calculation Example for Grade 7 (1 FTE):

Annual Leave FTE = Productive FTE x Annual Leave (5 week) % = 1.0 x (9.6/100) = 0.096 FTE

Sick Leave FTE = Productive FTE x Sick Leave % = 1.0 x (4/100) = 0.04 FTE

Professional Development Leave FTE = Productive FTE x PDL% = 1.0 x (1.15/100) = 0.012 FTE

Total FTE = 1.15

Calculation Example for Grade 5 (2.95 FTE):

Annual Leave FTE = Productive FTE x Annual Leave (5 week) % = 2.95 x (9.6/100) = 0.28 FTE

Sick Leave FTE = Productive FTE x Sick Leave % = 2.95 x (4/100) = 0.12 FTE

Professional Development Leave FTE = Productive FTE x PDL% = 20.4 x (1.15/100) = 0.24 FTE

Mandatory Training (11 day) = New staff headcount x 11 day % = 1 x (4.23/100) = 0.04 FTE

Mandatory Training (5 day) = Existing staff headcount x 5 day % = 8 x (1.92/100) = 0.15 FTE

Total FTE = 3.57

Example 2: Child and Youth Community Health Service

Productive		Non-Productive					
Grade	FTE	Annual Leave (5/6 weeks)	Sick Leave (4%)	Professional Development Leave (PDL) (1.15%)	Mandatory Training		Total FTE
					Average 2 new staff headcount (4.23%)	Existing 17 staff headcount (1.92%)	
7	1.0	0.096	0.04	0.012			1.15
6	3.16	0.30	0.13	0.05			3.64
5	7.99	0.77	0.32	0.09	0.09	0.33	9.59
3	3.89	0.37	0.16	0.05			4.47
1	0						
Total	**16.04**	**1.54**	**0.65**	**0.20**	**0.09**	**0.33**	**18.85**

Mandatory training is calculated based on headcount. Hence, for the example provided the headcount for the unit has been set at 19 staff. The mandatory training FTE allocation has been incorporated into the grade 5 level as a recruitment strategy.

9.6 Step 6: Calculate total nursing and midwifery FTEs and convert into dollars

Calculating costs of the nursing and midwifery FTE required is essential when allocating resources during the business planning process. The BPF manual (2008) outlines two methods of converting the total nursing and midwifery FTEs required into a dollar value: nurse-by-nurse and averaging. Nurse-by-nurse uses the hourly rate of an individual's grade and pay point to calculate the total costs whereas averaging involves using the average costs of a category of staff. Refer to the BPF manual (2008, p.71-73) for more information.

The following examples use the **averaging** method to determine the costs of the total nursing and midwifery FTE required. Example 1 details the step by step processes of the calculations, as the formulas can be applied to any comparable situation.

Note: Annual Base Salary data is current as of September 2011.

Example 1: Alcohol and Drug Service

Grade	Pay Point	FTE	Annual Base Salary per pay point
7	3	1.0	97,676
6	1	1.0	74,148
6	4	1.95	151,118
5	4	0.5	32,054
5	5	0.4	27,004
5	7	2.05	149,437
Total		**6.9**	**531,437**

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

Access the current annual base salary per pay point through QHEPS:
http://www.health.qld.gov.au/hrpolicies/wage_rates/nursing.asp

Calculate the annual base salary of FTE per grade and pay point using the formula below:

Annual Base Salary = pay point per grade ($) X FTE

Annual Base Salary = Grade 6.1 ($74,148) x 2 FTE
= $148, 296

Step 2: Determine the total annual base salary per grade by adding together the annual base salary of each grade and pay point. The total Annual Base Salary per grade is then used to calculate the costs of nursing staff in Step 3.

Total Annual Base Salary/Grade 6 = Grade 6.1 ($) + Grade 6.4 ($)
= $74,148 + $151,118
= $225,266

Step 3: Calculate the total cost for each grade by using the established multiplier percentages in section 9.5 of this addendum.

Productive		Non-Productive							
Grade	FTE	Annual Base Salary per Grade	Penalties @ 24% $	Annual Leave (9.6%/11.54%) $	Sick Leave (4%) $	Professional Development (1.15%) $	Mandatory Training		Total $
							Average 1 new staff (headcount) $	Existing 8 staff (headcount) $	
7	1	97,676	0	9,377	3,907	1,123			112,083
6	2.95	225,266	54064	21,626	9,011	2,591			312,557
5	2.95	208,495	50039	20,016	8,340	2,398	3,258	11,830	304,375
3	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-
Total	**6.9**	**531,437**	**104,103**	**51,018**	**21,257**	**6,112**	**3,258**	**11,830**	**729,015**

Total Cost for Grade 7 FTE:

Penalties = $0 (nil required)

Annual Leave = Annual Base Salary X 5 weeks leave %
= $97,676 X 0.096
= $9,377

Sick Leave = Annual Base Salary X Sick Leave %
= $97,676 X 0.04
= $3,907

PD Leave = Annual Base Salary X PDL %
= $97,676 X 0.0115
= $1,123

Total Cost for Grade 7 FTE = Annual Base Salary + Penalties + Annual Leave + Sick Leave + PDL
= $97,676+ $0 + $29,377 + $3,907, $1,123
= $112,083

Total Cost for Grade 5 FTE:

Penalties = Annual Base Salary x Penalties %
= $208, 495 x 0.24
= $50,039

Annual Leave = Annual Base Salary X 5 weeks leave %
= $208,495 x 0.096
= $20,016

Sick Leave = Annual Base Salary X Sick Leave %
= $208,495 X 0.04
= $8,340

PD Leave = Annual Base Salary X PDL %
= $208,495 X 0.0115
= $ 2,398

Mandatory training (new) = $\frac{\text{Total Annual Base Salary All Grades}}{\text{Total FTE}}$ x Mandatory training % x No. new staff

= $\frac{\$531,437}{6.9}$ x 0.0423 x 1

= $3,258

Mandatory training (existing) = $\frac{\text{Total Annual Base Salary All Grades}}{\text{Total FTE}}$ x Mandatory training % x No. new staff

= $\frac{\$531,437}{6.9}$ x 0.0192 x 8

= $11,830

Total Cost for Grade 5 FTE

= Annual Base Salary + Penalties + Annual Leave + Sick Leave + PDL + Mandatory training

= $208,495 + $50,039 + $20,016 + $8,340 + $2,398 + $3,258 + $11,830

= $304, 375

Example 2: Child and Youth Community Health Services

Grade	Pay Point	FTE	Annual Base Salary per pay point
7	2	1.0	95,294
6	3	2.06	159,986
6	4	1.1	87,374
5	2	3.09	183,602
5	3	4.9	304,329
3	4	2.4	122,237
3	5	1.49	77,148
1	-	-	-
Total		**16.04**	**1,029,970**

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

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

Step 3: Calculate the total cost for each grade by using the established multiplier percentages in section 9.5 of this addendum.

Productive			**Non-Productive**						
Grade	FTE	Annual Base Salary ($ average)	Penalties @ 15% $	Annual Leave (9.6%/11.54)	Sick Leave (4%)	Professional Development (1.15%)	Mandatory Training Average 2 new staff (headcount)	Mandatory Training Existing 17 staff (headcount)	Total $
7	1.0	95,294	14,294	9,148	3,812	1,429			123,977
6	3.16	247,360	37,104	23,747	9,894	3,710			321,815
5	7.99	487,931	73,190	46,841	19,517	7,319	5,432	20,959	661,189
3	3.89	199,385	29,908	19,141	7,975	2,991			259,400
1	-	-	-	-	-	-	-	-	-
Total	**16.04**	**1,029,970**	**154,496**	**98,877**	**41,198**	**15,449**	**5,432**	**20,959**	**1,366,381**

9.7 Step 7: Allocate nursing and midwifery hours to service requirements

The final step in developing an operational budget for your service is to balance the supply of nursing and midwifery resources with the demands of the unit. The BPF manual (2008, p.75) recommends reviewing the following when assessing the supply and demand trends of your service:

- time of day
- day of week
- seasons
- availability of medical officers
- compulsory service closures
- other locally significant reasons such as tourism, industry and major community events.

The retrospective analysis of quantitative and qualitative data relating to service demand and supply will be necessary. Reviewing monthly activity trends using occasions of service

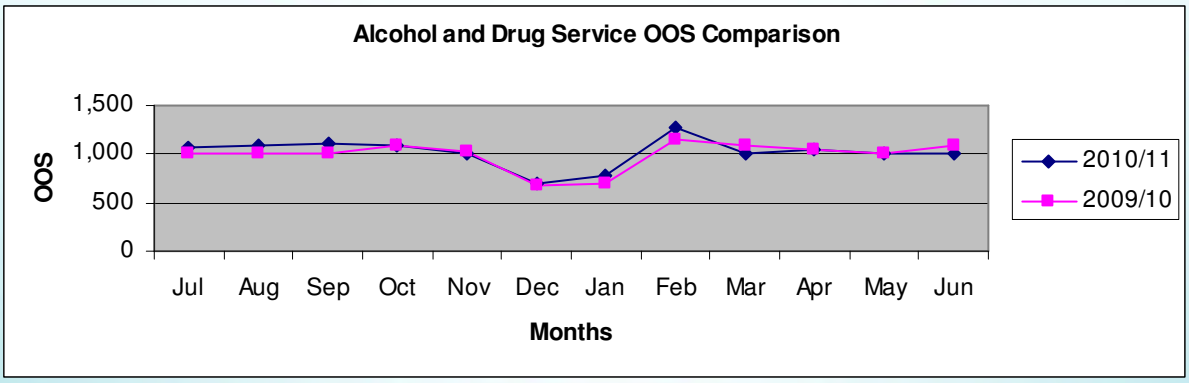
data and the actual nursing and midwifery hours used will reveal demand peaks and troughs. It is expected that some services will experience significant variations in demand and supply throughout a year, while others will find minimal changes within their service. Completing a service profile annually for your unit or program will provide a comprehensive overview and maintain a historical record of the service demand and supply variables in your area.

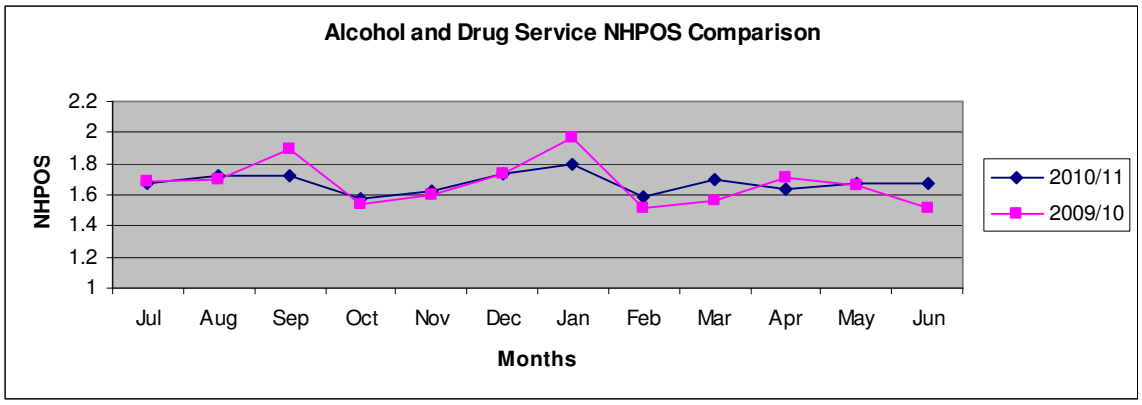
The following tables and graphs are derived from the previously discussed Alcohol and Drug Service and Child and Youth Community Health Services examples. Graphs have been used to illustrate the quantitative trends in service activity and nursing and midwifery hours used. A short qualitative analysis of the data follows each example provided. The concept of monitoring service activity and nursing and midwifery hours on a monthly basis can be transferred to daily and weekly trending within your service if required.

Example 1: Alcohol and Drug Service (Monthly Overview of Individual Services)

2010/11	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
Tot. hrs required/ month	1799	1884	1892	1719	1657	1209	1418	2026	1710	1705	1677	1667	20366
OOS	1,077	1,098	1,103	1,089	1,016	700	789	1,273	1,006	1,039	1,004	998	12,192
Average NHPOS	1.67	1.72	1.72	1.58	1.63	1.73	1.8	1.59	1.70	1.64	1.67	1.67	1.67

2009/10	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
Tot. hrs required/ month	1,699	1700	1898	1678	1657	1199	1378	1756	1698	1803	1654	1645	19765
OOS	1005	1002	1001	1089	1035	688	701	1153	1087	1054	998	1088	11901
Average NHPOS	1.69	1.70	1.90	1.54	1.60	1.74	1.97	1.52	1.56	1.71	1.66	1.51	1.66





Evaluation of service activity and nursing hours used:

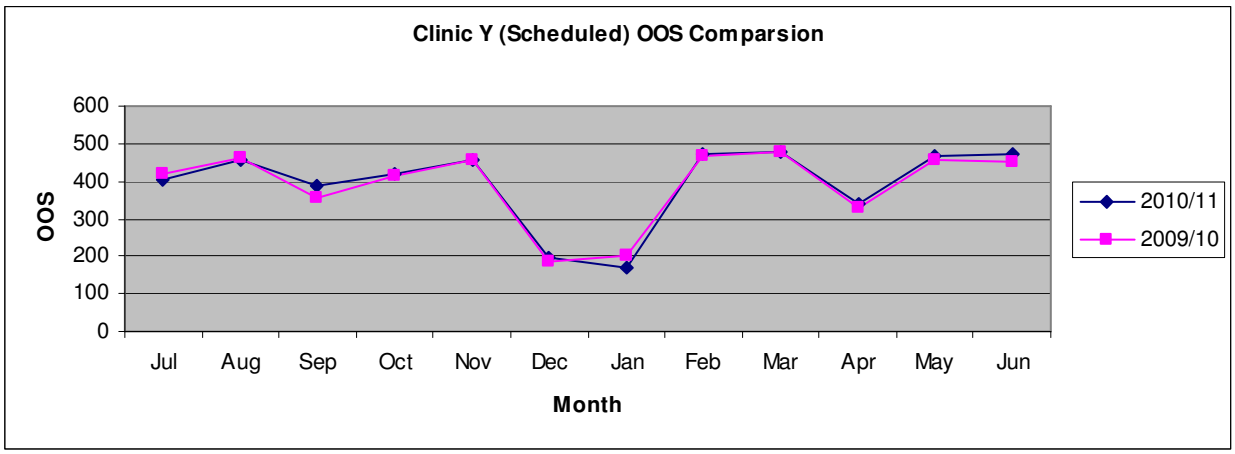
- minimal increase the number of OOS between 2009/10 and 2010/11
- minimal change in the **annual trend** of OOS in both financial years
- minimal change in the annual trend requirement for NHPOS; improvements in roster management resulted in efficient use of nursing hours during low demand periods eg. January
- consider leave allocation and mandatory training opportunities during December and January as OOS are lower then the average during these times.
- a full complement of clinical staff is required during peak demand in February.

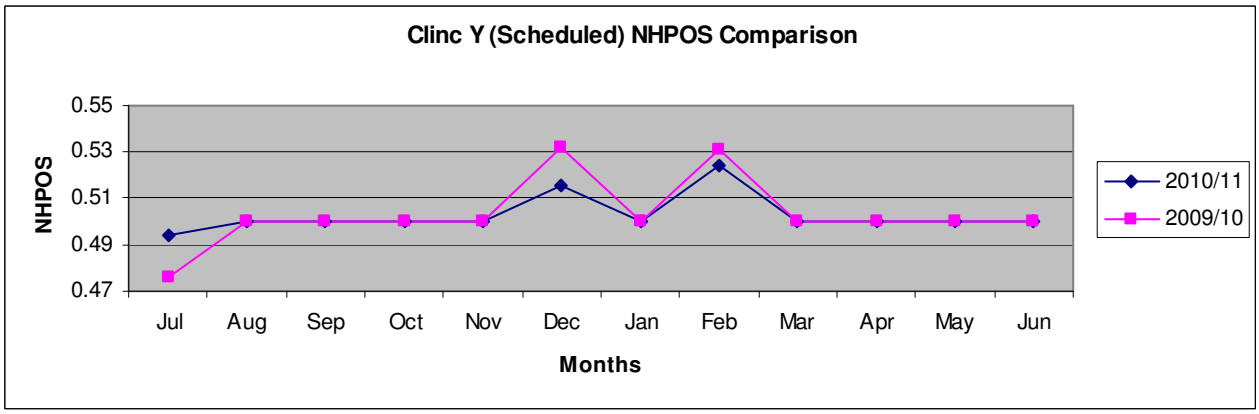
Example 2: Child and Youth Community Health Service

Clinic Y – Scheduled Monthly Overview*:*

2010/11	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
Tot. hrs required/ month	200	228.5	193	210	229	100	86	248	238	170	233.5	237.5	2361.5
OOS	405	457	386	420	458	194	172	473	476	340	467	475	4,723
Average NHPOS	0.49	0.50	0.50	0.50	0.50	0.52	0.50	0.52	0.50	0.50	0.50	0.50	NA

2009/10	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
Tot. hrs required/ month	200	230	177.5	207	228.5	100	100	248	240	164	229	226.5	2340
OOS	420	460	355	414	457	188	200	467	480	328	458	453	4,680
Average NHPOS	0.48	0.50	0.50	0.50	0.50	0.53	0.50	0.53	0.50	0.50	0.50	0.50	NA





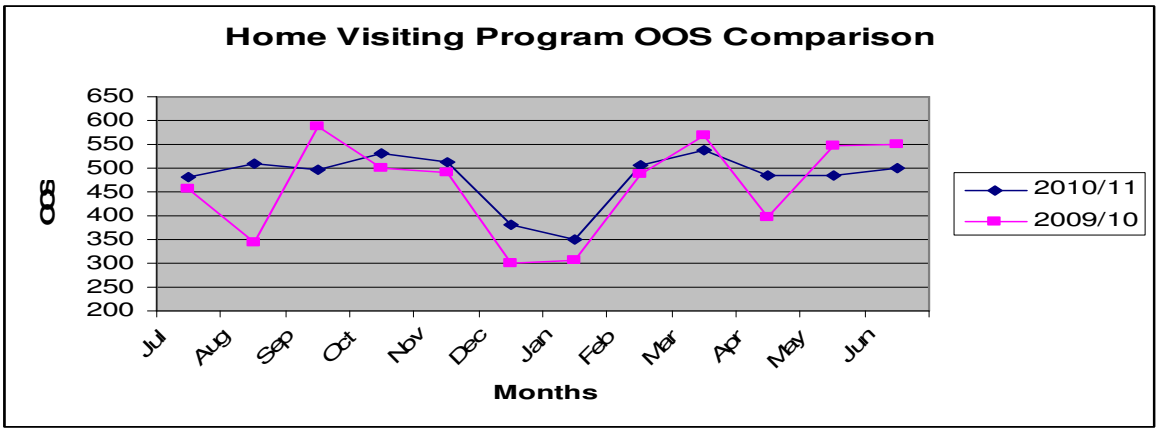
Evaluation of service activity and nursing hours used in Clinic Y:

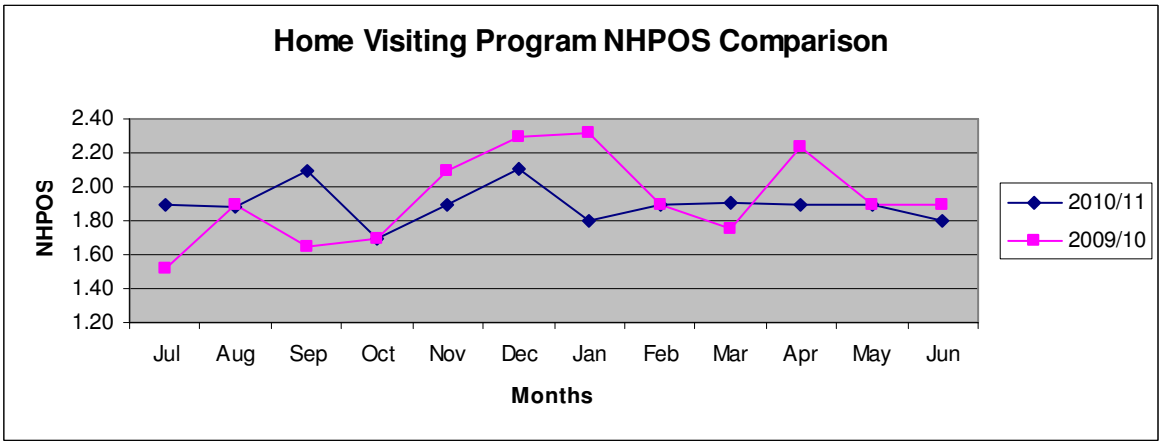
- nil significant changes in OOS between 2009/10 and 2010/11
- minimal change in the NHPOS and **annual trend** used over the comparison periods
- consider leave allocation and mandatory training opportunities during December, January due to holiday closures
- improved use of nursing hours during December and January 2010/11 when compared with the previous financial year.

Home Visiting Program Monthly Overview:

2010/11	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
Tot. hrs required/ month	911	956	1041	900	970	800	630	956	1028	917	913	900	10921
OOS	482	509	498	530	513	380	350	506	538	485	483	501	5775
Average NHPOS	1.89	1.88	2.09	1.70	1.89	2.11	1.80	1.89	1.91	1.89	1.89	1.80	NA

2009/10	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
Tot. hrs required/ month	690	652	970	845	1026	690	708	920	1000	890	1032	1040	10463
OOS	456	345	589	500	490	300	305	487	570	398	546	550	5536
Average NHPOS	1.51	1.89	1.65	1.69	2.09	2.30	2.32	1.89	1.75	2.24	1.89	1.89	NA

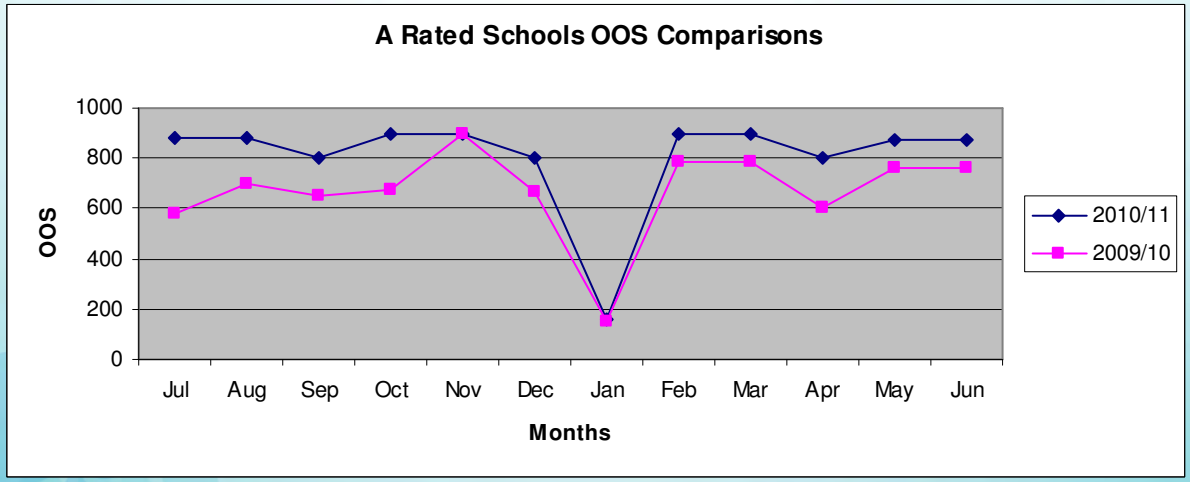


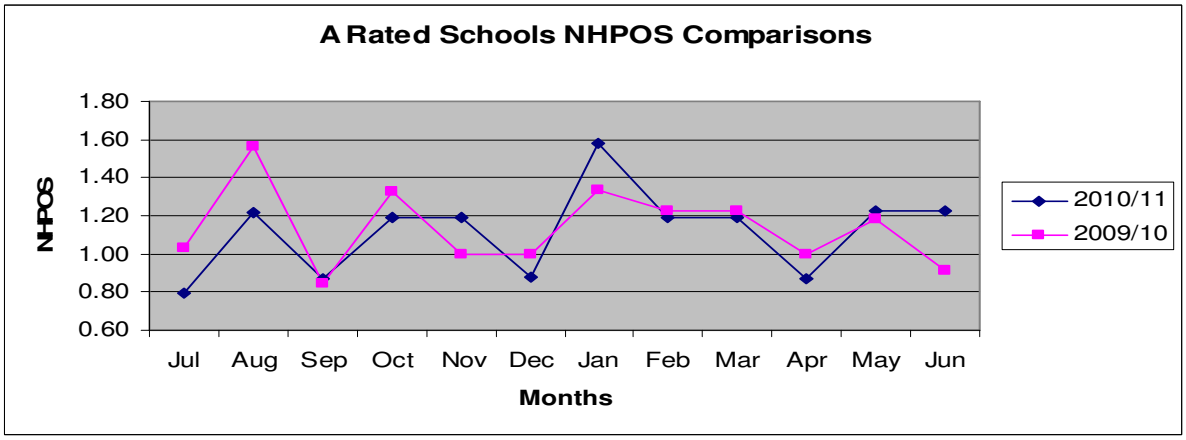


Evaluation of service activity and nursing hours used in Home Visiting Program:

- nil significant changes in OOS between 2009/10 and 2010/11
- a change in the in the **annual trend** of NHPOS over the comparison periods has been noted with the alignment of nursing hours based on service demand
- consider leave allocation and mandatory training opportunities during December, January and April due to reduced activity and/or holiday closures.
- improved use of nursing hours during December and January 2010/11 when compared with the previous financial year.

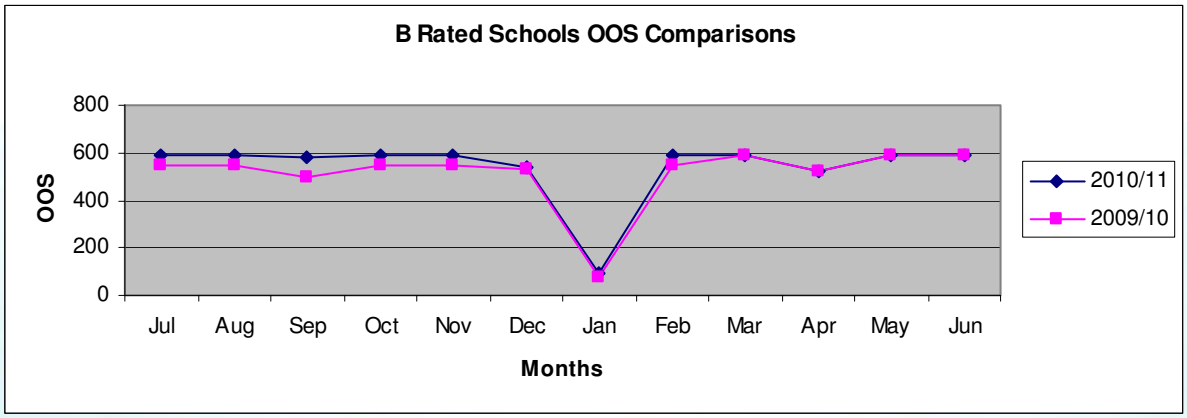
School Programs Monthly Overview:

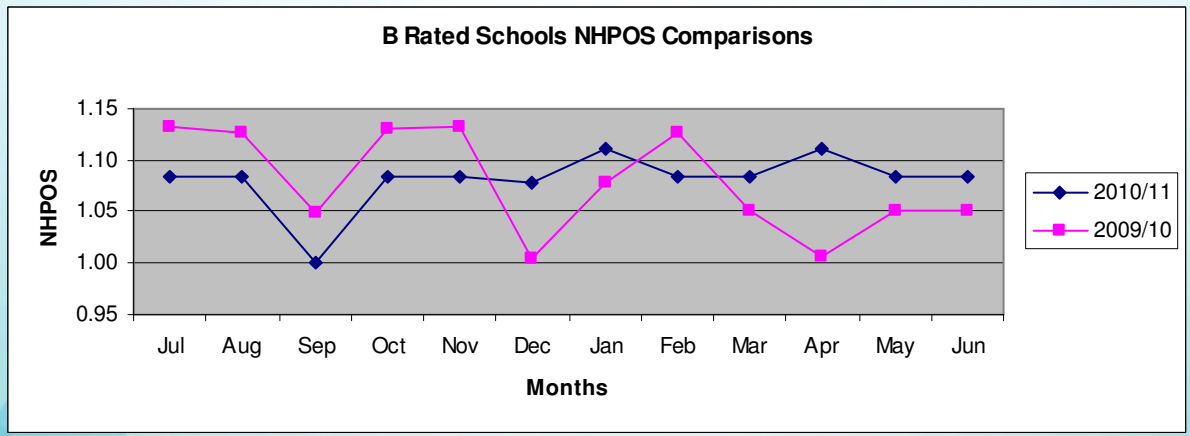




Evaluation of service activity and nursing hours used in A rated schools:

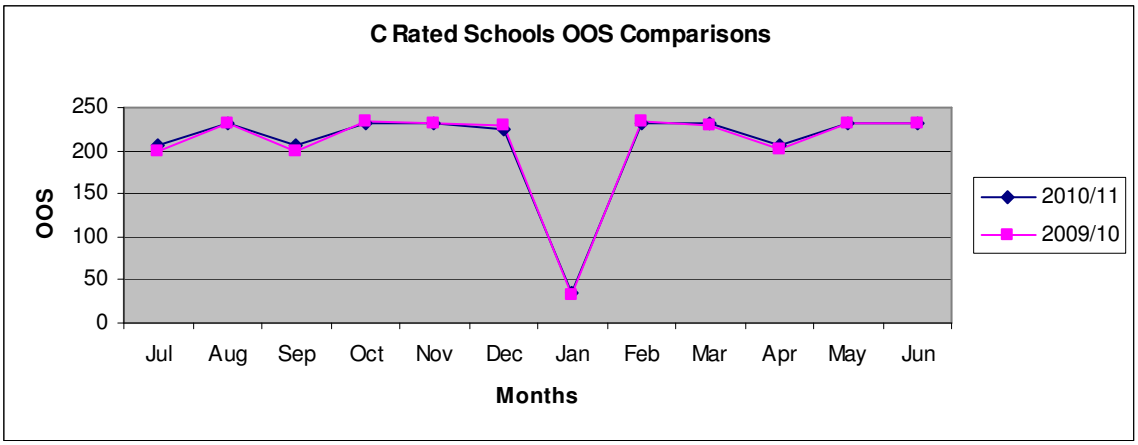
- minimal growth in the total annual OOS in A rated schools between 2009/10 and 2010/11
- nil significant change in the **annual trend** of OOS over the comparison periods
- NHPOS used over the last two financial years is similar
- improvement is required in leave management and rostering between December and January to efficiently balance staff supply with service demand.
- consider leave allocation and mandatory training opportunities during December, January, April and September (school holidays) due to reduced activity and/or service closures

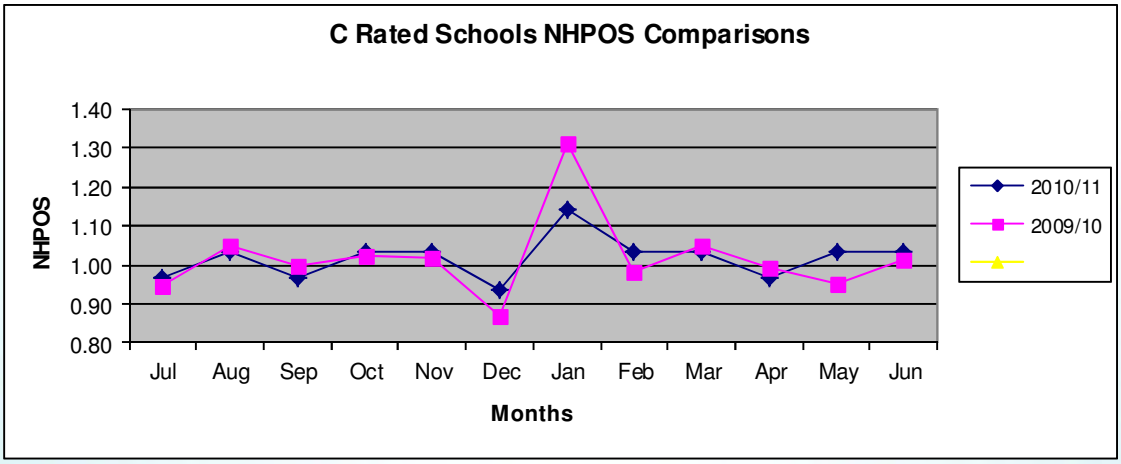




Evaluation of service activity and nursing hours used in B rated schools:

- nil significant growth or change in the OOS **annual trend** in B rated schools between 2009/10 and 2010/11
- utilisation of NHPOS has stabilised during 2010/11 and is balancing more successfully with service demand
- improvement is still required with leave management and rostering between December and January to continue achieving efficiencies in balancing staff supply with service demand.
- consider leave allocation and mandatory training opportunities during December, January, April and September (school holidays) due to reduced activity and/or service closures.





Evaluation of service activity and nursing hours used in C Rated Schools:

- nil growth or change in the OOS or NHPOS in C rated schools between 2009/10 and 2010/11
- consider leave allocation and mandatory training opportunities during December, January, April and September (school holidays) due to reduced activity and/or service closures.

10.0 Summary

Determining total staffing requirements and operational budgets is an important process when balancing the supply of nursing and midwifery staff with the demand for health services. Within Queensland Health, the BPF is used to promote transparency and consistency in managing the supply of nurses and midwives with service demand. The framework supports nurses, midwives and business teams to assess, develop and evaluate healthcare services using local information gathered from a variety of quantitative and qualitative sources.

Service profile development is the industrially agreed process for nursing and midwifery staff to follow when implementing the BPF. The information required when conducting a service profile will assist staff in reviewing historical service data, assessing current circumstances and developing plans for the future. A comprehensive service profile will help determine the productive and non-productive nursing and midwifery hours required to meet service demand and assist nursing and midwifery mangers to develop workforce plans and operational budgets.

Primary and community and public health services can achieve improvements in workload management practices and outcomes by completing a service profile and :

- including all direct and indirect nursing and midwifery activity into productive hours
- incorporating the effects of existing/emerging service demands on nursing and midwifery resources in service profiles
- using consistent and appropriate client acuity/complexity and activity measures
- applying all standard multipliers as directed within the BPF manual (2008)
- networking and sharing of business planning processes and practices within the speciality area.

To assist in implementing the BPF within your area, service profile and performance evaluation examples have been included within the appendices of this addendum.

More information about the BPF can be found on the Nursing and Midwifery Office, Queensland intranet site: http://qheps.health.qld.gov.au/nmoq/default.htm

Appendix A

Assessing core demand in a community alcohol and drug service (fictional example)

The following fictional example describes and prioritises a number of realistic demands which influence the total nursing hours required in a community alcohol and drug service (ADS) based on the core demand diagram located in section 5 of this addendum. Impact assessments of each demand have been included to highlight specific nursing workload considerations and implications for service delivery. The demand impacts have been summarised and used to inform the workload management strategies and workforce plans found in the ADS service profile in appendix B.

This example does not constitute organisational policy.

Alcohol and drug service demands/desired health outcomes

Client	• Individual and family referrals to a wide variety of substance use healthcare services • Services accommodate individual clients, their families and significant others • Comprehensive screening, assessment, intervention, counselling, outreach and case management services are available • Care is coordinated with other relevant public, non-government and private sector health services • Establishment and maintenance of collaborative partnerships with public, non-government and private sector services
Staff	• Develop a clinical experience program for undergraduate nursing students • Implement Queensland Health's succession management and career development framework • Improve mandatory training and speciality requisite training compliance to 100% • Review business rules for caseload management practices and processes
Organisation	• Effective and efficient health promotion, illness prevention and early intervention • Access to quality services delivered in the right way, at the right place and in the right time • Improve the equity of health outcomes for consumers • Create a sustainable, proactive and continually improving health system • A sustainable and high quality workforce to meet future health needs

Workload impact assessment:

- *direct nursing hours considerations include the delivering of clinical care with the appropriate allocation of nursing hours and skill mix*
- *indirect nursing hours considerations and priorities includes succession planning, performance appraisal and development, business planning, rostering and recruitment*
- *non-productive nursing hours consideration includes scheduled and unscheduled leave, mandatory training and backfill arrangements.*

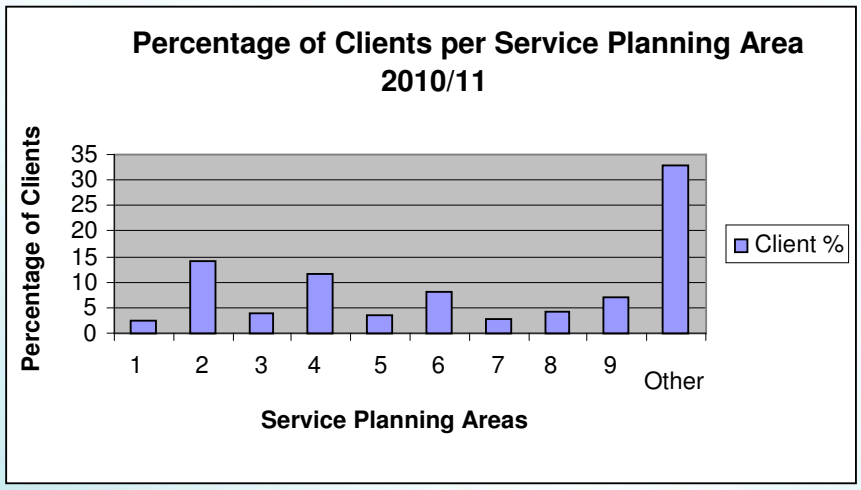
Population demographics

- Population of district X in 2011 is 875, 551 with an expected growth to 1,062,402 by 2026
- 1.7% Aboriginal and Torres Strait Islander population (average in Australia 2.3%)
- 21.7% of the local population were not born in Australia
- 16% speak a second language other than English
- 0.4% of the population is homeless

Expected population growth of Local Planning Areas by 2016
(Queensland Health InfoBank, Health Statistic Centre)

Local Planning Area	Population 2011	Expected Population 2016	Increase (%)
1	61,930	63,614	2.65
2	112,013	130,598	14.23
3	83,010	86,270	3.78
4	124,399	140,978	11.8
5	74,149	76,838	3.50
6	117,627	128,280	8.30
7	102,846	105,954	2.93
8	56,267	58,747	4.22
9	132,630	136,314	2.70

Breakdown of clients by Service Planning Area
(Source ADS database)



Workload impact assessment:

There is steady growth in the district's primary population with additional increases expected in the wider external catchment areas. The growth seen in Service Planning Areas 2, 4, and 6 correlate with current trends in client activity. Minor increases in nursing resources and infrastructure for the ADS will be needed by 2016 to provide for the population growth in the outer and region communities. Outreach teams will commence this year to service high demand areas.

Context of practice

- metropolitan area
- ADS is part of the district's Community Teams Program
- service is super-regional, >30% of clients are from areas outside district x
- small clinical team delivering highly specialise services
- operates Monday to Sunday 0700-2230, 365 days per year
- delivers a wide variety of alcohol and drug healthcare services to individuals and families
- client activity is unpredictable due to self-referral syste,
- integrated multidisciplinary team model of care used incorporating Director, Director of Nursing, Nursing Director, Nurse Unit Manager, Clinical Nurses, Registered Nurses, Medical staff, Psychologists, Social Workers and Occupational Therapists
- no access to casual or permanent staffing pools, limited use of agency staff
- emergent leave primarily covered by internal staff and/or the rescheduling of services
- secondments from other primary and community health services are used to cover scheduled leave
- nursing attrition levels below Queensland Health's statewide average
- high level of coordinated care and community engagement with government and non-government agencies
- participates in General Practitioner (GP) 'shared care' programs

Workload impact assessment:

The alcohol and drug unit provides a number of diverse speciality services which require appropriately trained and experienced staff. There has been minimal staff turnover during the last three financial years meaning the number and skill level of clinicians has been maintained. Access to appropriately skilled agency and casual staff is limited which has resulted in the high use of overtime hours and part-time extra shifts. The service is primarily managed by a core group of medical and nursing staff with support provided from a rotational pool of allied health staff.

Nursing workload grievances have increased over the last two years primarily due to extra multidisciplinary duties and tasks being assigned to nursing staff. Minimisation or reallocation of these duties and tasks to other multidisciplinary team members is required to ensure the appropriate use of productive nursing hours.

Additional priorities for this unit include developing recruitment and retention strategies to maintain staffing numbers, clinical expertise and the management of scheduled/unscheduled leave. Improving staff participation and compliance with organisational programs such as mandatory/ speciality training, succession management and performance development is also required.

Client complexity

- 22% new client episodes per year (↑ 3.2% previous financial year)
- 23% of total client services are group contacts (↓0.6% previous financial year)
- 77% of total client services are individual contacts (↑0.3% previous financial year)
- 15% of clients have no fixed address (↑1.1% previous financial year)

Main treatment types in the Alcohol and Drug Unit
(Data source: Alcohol, Tobacco and Other Drug Services Information System)

Treatment types	Clients % (2010/11)	Client % (2009/10)
Withdrawal management (detox)	17	16
Counselling	38	39
Rehabilitation	7	8
Support and case management	8	6
Information and education only	10	12
Assessment only	14	12
Other	6	7

Principal drugs of use of clients accessing services

(Data source: Alcohol, Tobacco and Other Drug Services Information System)

Drug	Client % (2010/11)	Client % (2009/10)
Alcohol	43	42.8
Amphetamines	12.7	11.8
Benzodiazepines	1.6	1.5
Cannabis	21.7	22.1
Cocaine	0.4	0.3
Ecstasy	0.8	0.9
Heroin	10	11.1
Methadone	2.1	2.4
Other opioids	2.5	1.5
All other drugs	5.2	5.6

Sex and age of clients accessing services

(Data source: Alcohol, Tobacco and Other Drug Services Information System)

Client Age	Male % (2010/11)	Male % (2009/10	Female % (2010/11)	Female % (2009/10)
10-19	16	15.7	12.2	12.1
20-29	37.2	37.1	31.9	32.2
30-39	25	25.3	27.6	27.5
40-49	14.1	14.2	17.8	17.6
50-59	6.0	5.8	7.9	8.2
60<	1.7	1.9	2.3	2.4

Workload impact assessment:

The data indicates a small increase in the number of new client episodes during this year. No significant changes were noted in the main treatment types, principal drug of choice, sex and age of clients accessing the service and the number of individual and group services delivered. It is projected that the 2011-2012 year will be similar. Therefore, no significant changes are required to the number of direct nursing hours required within this service based on client complexity. However, increases in indirect nursing hours are expected to achieve the unit's plans for undergraduate training, succession planning, performance appraisal and development, business planning, recruitment and retention activities.

Matching the expected increase in client complexity to human resources in the future (2016) will require the model of care and service delivery model to be modified to accommodate the gradual introduction of additional mobile clinics. Induction processes, rostering practices and education/ training programs will also need to be adjusted to provide appropriate levels of support to staff. A review of the how the service is using indirect nursing hours combined with peer group comparisons is recommended to assess the adequacy of the hours allocated.

Service activity

- 7,280 individual occasions of service in 2010/11 (↑0.4% previous financial year)
- 208 group education/counselling sessions delivered in 2010/11 (average 4.2 attendees)
- 22% new client episodes per year (↑ 3.2% previous financial year)
- 23% of total client services are group contacts (↓0.6% previous financial year)
- 77% of total client services are individual contacts (↑0.3% previous financial year
- 35% 'did not arrives' were recorded for new and existing clients (↑1.5%)

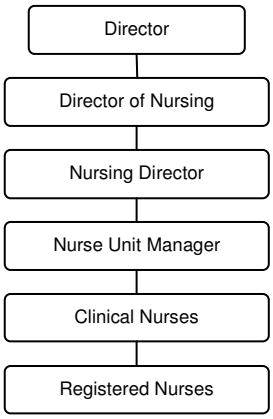
Workload impact assessment:

There have been minimal increases in service activity within the ADS. The number of 'did not attend' clients has risen slightly when compared with the previous year. While this increase may appear insignificant, the overall number of 'did not attends' is high which reduces the service's overall productivity. Plans to actively manage the number of 'did not attends' is required.

The commencement of outreach clinics in local planning areas 2, 4 and 6 during 2011/12 is expected to reduce client activity within the central service unit. Reallocation of nursing hours from the central unit to cover the outreach clinics will be necessary. Growth in productive nursing hours of 0.5 FTE per year from 2011/12 to 2015-16 has been approved to manage the projected increase in the district's population.

Leadership and management

Alcohol and Drug Service Nursing Structure



- **Director:** strategically manages the Community Teams Program.
- **Director of Nursing:** demonstrates expertise in clinical practice and management. Responsible for the activities of the nursing services within the organisation and contributes to the development of policy. Accountable for nursing practice within the organisation. Leadership of nursing service, effective coordination of resources and the development of health strategies in collaboration with other.
- **Nursing Director:** demonstrates clinical and management expertise and is responsible for the overall planning, coordination, formulation and direction of policies relating to the provision of clinical care, development of partnership models and strategies to support undergraduate and post-graduate education and research in the workplace. Responsible for providing human and material resources for the Community Teams Program.
- **Nurse Unit Manager:** accountable at an advanced practice level for the coordination of clinical practice and the provision of human and material resources within the ADS on a daily basis including staffing, rostering, patient scheduling, recruitment and retention, performance appraisals and management and business planning.
- **Clinical Nurses:** require broad developing knowledge in professional nursing issues and a sound specific knowledge base in relation to alcohol and drug health services. The clinical nurse assumes accountability and responsibility for own actions and acts to rectify unsafe practice and/or professional conduct. This role identifies, selects, implements and evaluates nursing interventions and provides support in the delivery of education, training and preceptorship specific for the alcohol and drug service.
- **Registered Nurses:** provides nursing care based on the Australian Nursing and Midwifery Council National Competency Standards to consumers seeking alcohol and drug services. registered nurses work in collaboration with other health service providers.

Other considerations:

- 75% of staff have postgraduate qualifications relevant to alcohol and drug services.
- Caseloads are allocated to nursing staff based on skills and experience.
- Group sessions are conducted by the multidisciplinary team members on a rotational basis.
- Speciality support is provided to individual clients services by multidisciplinary team members.
- Staffing profile supports 1 FTE of undergraduate student placement per year.
- Leadership and management of the service are based on collaboration between the multidisciplinary team which includes medical officers, psychologists, social workers and occupational therapists.

Workload impact assessment:

Rostering of productive hours and allocation of non-productive hours as per the BPF and Queensland Health's Best Practice Guidelines is required. Direct nursing hours will be used as a basis for calculating the indirect hours and non-productive hours required such as succession planning, mandatory/requisite training, professional development and accrued leave. Reviewing the role descriptions and work undertaken by nursing staff in the multidisciplinary environment will be necessary to monitor the effectiveness and productivity of the nursing team.

Model of care

The ADS primarily uses an integrated case management model of care which involves multidisciplinary team members. This service supports the amalgamation of relevant government and non-government services to provide coordinated holistic care to clients. Group education and counselling services are provided to complement individual services.

Workload impact assessment:

An integrated multidisciplinary and multi-service model of care requires a collaborative approach to workload management. Revision of all statements outlining the roles, responsibilities and accountabilities of nursing, medical, allied health staff and related services is necessary to ensure an efficient use of the service's human resources. Collating data about the type of activities nursing staff are involved in will assist the allocation and validation of workload and/or caseloads within the service.

The number of productive hours for this service is expected to increase by 0.5 FTE per year until 2016. A unit priority is to increase the number of group sessions available to improve service access and efficiently meet client demand. The additional 0.5 FTE will include indirect clinical hours sufficient to manage all the nursing activities which support the delivery of direct care (eg. data management, staff orientation and training).

Quality and safety

- Integrated multidisciplinary reporting formats
- Reporting and management of client and staff workplace incident reports
- Clinical workplace audits eg. infection control, prescriptions, environment
- Staff compliance (100%) to mandatory workplace health and safety training requirements eg. fire safety, occupational violence training, infection control and prevention
- Staff participation in policy/procedure development and review
- Four multidisciplinary clinical portfolios – infection control, workplace health and safety, education and training, quality improvement and evidence based practice

Workload impact assessment:

Calculation and regular rostering of indirect nursing hours are required to support the quality and safety activities within the unit. Documentation of the activities, the resources used (including staff time) and evaluation processes will provide valuable information to assist workload, workforce and operational planning.

Education and service capacity development

- Continual professional development points for all staff (registration requirements)
- Mandatory and speciality requisite training
- Undergraduate nursing students support (based on 42 weeks per year)
- Postgraduate study support (variable numbers)
- Recruitment and retention strategies
- Succession planning and performance appraisals

Workload impact assessment:

The education and service capacity considerations for this service directly influence the number of indirect and non-productive hours required. Adequate allocations of these nursing hours are required to maintain service commitments in staff development and training. Currently, all recruitment, retention and training processes are managed locally by the Nurse Unit Manger and Clinical Nurses. Approval to transfer these activities to the District's central recruitment and education team has occurred which increases the number of productive nursing hours available for use in the ADS.

Research and evidence based practice

- 2 x 12 week practice development program planned
- 1 x staff member is involved in a research studies (collaborative work with University A)

Workload impact assessment:

Calculation and allocation of indirect nursing hours is required to meet the demands of research and evidence based practice in this unit. The time committed to practice development will need to be averaged throughout the year to assist in the consistent distribution of nursing hours. Backfill for staff undertaking research activities/accessing SARAS leave will need to be assessed.

Community interface

The ADS interacts regularly with the following services:

- Acute care team
- Community team
- Indigenous and homeless outreach team
- Needle and Syringe Program
- Alcohol and drug information service (24 hour counselling)
- Adolescent drug and alcohol service
- Alcohol Islander service
- Drug Arm Services
- Injectors health network
- Private detoxification services
- Residential support houses
- Community mental health.

Workload impact assessment:

Nursing interaction with these services is primarily direct care and has been included in the established productive nursing hours (eg. NHPOS/NHPAU). Non-clinical networking and other non-clinical collaborative meetings are considered indirect and will need to be included when calculating the total productive nursing hours required.

Health policy, guidelines, strategic plans and legislation

The following policies, guidelines, plans and legislation influence the ADS:

- Queensland Health Dual Diagnosis Policy
- Queensland Needle and Syringe Policy 2009
- Queensland Drug Action Plan 2011-2012
- Queensland Health Smoking Management Policy
- Queensland Strategy for Chronic Disease 2005-2015
- Queensland Closing the Gap Report 2008/09
- Queensland Health Strategic Plan
- Queensland Health Primary and Community Health Information Management Strategy 2010
- Strategic Directions for Chronic Disease Prevention 2009-2012
- National Alcohol Strategy 2006-2011
- National Drug Strategy 2010-2015
- National Centre for Education and Training in Addiction publications eg. Alcohol and Other Drugs Workforce Development Issues
- *Tobacco and Other Smoking Products Act 1998*
- *Liquor Act 1992*
- *Drug Misuse Act 1986*
- *Health Act 1937 – Health (Drugs and Poisons Regulations)1996.*

Workload impact assessment:

Service demands placed on the ADS as a result of policy, guidelines, plans and legislation impacts both direct and indirect nursing hours. A number of influential factors and their associated demands have been included in the allocation of nursing hours (eg. NHPOS/NHPAU) while others have been captured in alternative demands such as quality and safety and/or education and service capacity building.

Appendix B
Community alcohol and drug service - service profile 2011/12
(fictional example)

Service name

Alcohol and Drug Service

Service aim

To deliver quality clinical and preventative alcohol and drug services to the communities within and surrounding District X by:

- providing evidenced based programs designed to minimise harm caused by the misuse of alcohol, tobacco and other drugs at the right time, in the right place and in the right way
- delivering sustainable alcohol and drug services which are effective and efficient in health promotion, illness prevention and early intervention.

Service objectives

1. Assess, plan and implement service capacity changes to meet the expected 7% average growth in client demand for alcohol and drug services by 2016.
2. Achieve a 50% reduction in the number of new and existing clients that 'did not attend' scheduled appointments by June 2012.
3. Develop operational strategies to transition recruitment processes and transition to practice programs to the District's centralised services by December 2011.
4. Review and update all policies, procedures and guidelines relating to the accountability and responsibility of clinical roles within the Alcohol and Drug Service by June 2012.
5. Service based implementation of the Nursing and Midwifery' Office Queensland succession planning and mentoring framework by 2012.
6. Improve the monitoring of roster planning and leave management outcomes by including key performance indicators relevant to this area within the monthly balanced scorecard.

Present service

The Alcohol and Drug Service (ADS) is a part of the District's's X Community Teams Program situated in city Y. This service supports referrals from a variety of healthcare providers as well as from individuals and their families. The ADS is a super-regional service which delivers comprehensive alcohol and drug screening, assessment, intervention, counselling, outreach and case management services to consumers in District X and neighbouring areas. A map of the service boundaries can be found on our intranet site. The service operates every day of the year from 0700-2230.

Highly specialised care is coordinated and delivered by a small clinical team made up of medical and nursing staff with support being provided from a District pool of rotating allied health staff. The ADS works collaboratively with other public, non-government and private

sector health and community services to deliver a coordinated, holistic alcohol and drug services to clients and their families.
Service delivery standards and practices within the ADS are guided by state and national policies, frameworks and legislation.

Internal environmental analysis

Structural

The ADS is an open referral service located in the central business district of city Y. This service is a part of District X's Community Teams Program which incorporates:

- Central referral unit
- Community acute and post acute
- Child health service
- Indigenous health
- Palliative care
- Primary health and care coordination
- Rehabilitation and consultation
- Sexual health and HIV.

District X has a geographically large catchment area which includes two major universities which offer pre- and post-graduate education for medical, nursing and midwifery and allied health staff. Currently, this service has no direct affiliations with these universities in regard to undergraduate clinical placements or postgraduate degrees. Instead, clinical placements are arranged on a 'needs basis' when students require experience in specialised alcohol and drug services. One staff member is working collaboratively with University A on a research study, however this process is managed independently by the university.

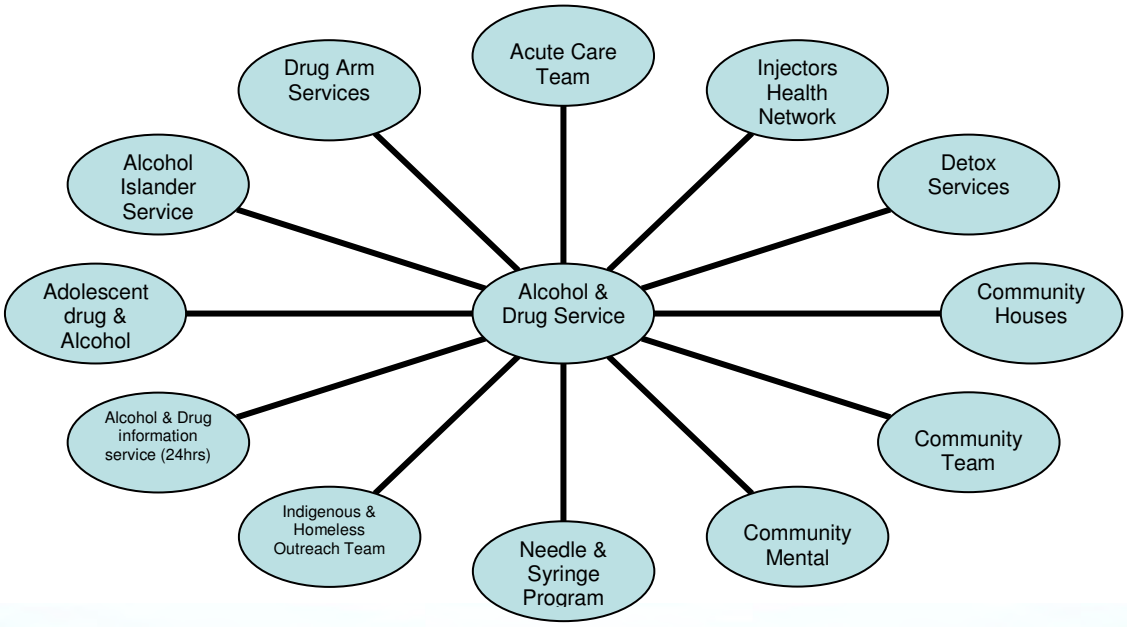
The ADS is located on Level 1 of the Queensland Health's Community Health building. Access to the building is via a video intercom system which is staffed by security during hours. The physical layout of the floors includes 4 X consultation rooms, 2 x conference/group rooms, 1 x pharmacy store, 1 x client reception/lounge areas, 1 x client kitchen, two x bathrooms and 1 x staff room. A variety of security devices (eg. swipe cards and combination locks) are in place to prevent unauthorised persons from accessing staff only areas such as pharmacy and staff rooms. Other community health services are located on ground floor and third floor, however these services work in isolation to the ADS and only operate 0800-1700 Monday to Friday.

Staffing and skillmix allocation is based on meeting the demands of scheduled and unscheduled client activity, the physical environment and security needs of the service. The reception area is staffed at all times by administration and/or security staff. Each shift, the nursing shift leader is allocated the task of triaging new and/or unscheduled clients seeking assistance. One consultation room is used solely for the purpose of managing unscheduled clients while the other three consultation rooms are dedicated to scheduled appointments. A weekly rotational roster exists to assist the allocation of multidisciplinary team members to each consultation room. The two conference rooms are used for pre-arranged group therapy/education/support group sessions. Over time, the service's permanent nursing staff have developed a wide range of diverse skills which has resulted in their workloads increasing to accommodate the rising demand for multidisciplinary team services.

There is very limited capacity to physically expand the current environment of the ADS to manage the expected 7% growth in service activity by 2016. Hence, the introduction of

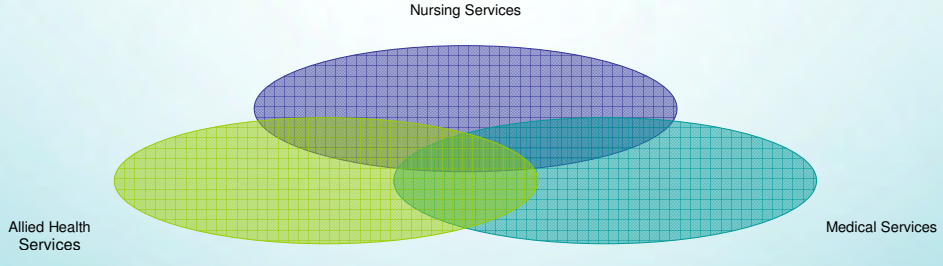
mobile teams to deliver alcohol and drug services within the highest projected growth planning areas has been approved and funded. These outreach teams will be situated in the existing ADS and will travel to community health facilities in other suburbs to deliver alcohol and drug health services. The quality and type of alcohol and drug services provided is expected to remain the same with support obtained from local health and general community services. Presently, the ADS consumer interface involves a number of internal and external services as shown in the diagram below.

Alcohol and Drug Service Interface



The ADS adopts an integrated multidisciplinary and multiservice approach to healthcare delivery. A core group of medical, nursing and administration staff are employed permanently within the service. Allied health team members such as psychologists, social workers and occupational therapists rotate in from other District services to support the skill mix required to deliver this model of care. The ADS relies on a collaborative team structure to deliver high quality, coordinated alcohol and drug services to the community. The diagram below depicts the individual disciplines merging together to form a united professional structure within the ADS.

Alcohol and Drug Services Multidisciplinary Team Structure



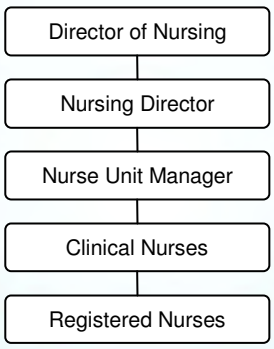
The service's nursing structure comprises of Registered Nurses, Clinical Nurses, Nurse Unit Manager, Nursing Director and Director of Nursing. Within this structure, each individual position works to support the delivery of direct and indirect care either professionally or operationally for all consumers. Presently, the Nurse Unit Manager and Clinical Nurses manage all local nursing recruitment processes, education programs and training supports. A substantial number of indirect nursing hours are allocated to maintain these supportive duties which have increased over 25% in the last two years alone. Sustainability of recruitment, education and training functions is considered vital to achieving the unit's aim of providing high quality alcohol and drug services to the community. Hence, the transfer of accountability for these core activities to the District's central recruitment and education teams will occur during 2011/12 to decrease delays in recruitment processes and improve the number of staff attending organisational training and competencies requirements.

Historically, the nursing structure of the ADS has been made up of 100% clinically experienced registered/clinical nurses due to:

- the need to match client complexity with nursing staff's scope of practice and skill
- service preference for a clinical nurse/senior registered nurse to deliver care
- a lack of transition to practice programs suitable for nurses inexperienced in alcohol and drug services.

The current nursing structure (refer to diagram below) was designed last year to work in conjunction with the launch of the alcohol and drug transition to practice program in 2010/11. This program was designed to facilitate the employment of inexperienced registered nurses into the ADS and to decrease the level of experienced staff to 75%. To date, the educational, managerial and clinical support for this structural change has been provided through the Grade 6 and Grade 7 positions with additional clinical/preceptorship assistance being supplied recently by Grade 5 nurses who have successfully completed the transition to practice trial program. Transferring the management of the transition to practice program to the centralised education team is expected to have a positive impact on the service's ability/flexibility to employ more new staff to meet increasing service demands.

Alcohol and Drug Service Nursing Structure



- The Nurse Unit Manger participates in direct patient care and is the designated shift leader Monday to Friday.
- Clinical Nurses are delegated shift leader responsibilities after-hours and on the weekend.
- The nursing structure supports a maximum of 2 FTE transition to practice Registered Nurses.

There is one cost centre which incorporates all costs associated with the ADS including labour, consumables and non-consumables. This structure allows the Nurse Unit Manger to locally coordinate the balancing of service supplies with service demands.

Human resource management

The ADS is an integral part of primary and community program in District X. Within the service, the Director and Director of Nursing are professionally responsible and accountable for the delivery of services within the ADS. The incumbents of these two full-time positions are expected to have suitable qualifications/experience in primary and community services and healthcare management. Within nursing services, the Nursing Director is the conduit between operational and professional management. Hence, the Nursing Director and the Nurse Unit Manager position work in partnership to achieve the aims and objectives of the ADS. These positions are also expected to have suitable qualifications/experience in primary and community and/or alcohol and drug nursing and have or be working towards appropriate qualifications in healthcare management.

The ADS provides a number of diverse speciality services which require appropriately trained and experienced staff. There has been minimal staff turnover during the last three financial years, and consequently, the number and skill level of clinicians has been maintained. Access to appropriately skilled agency and casual staff is limited which has resulted in the high use of overtime hours and part-time extra shifts. The service is primarily managed by a core group of medical and nursing staff with support provided from a rotational pool of allied health staff. Nursing workload grievances have increased over the last two years due to supplementary multidisciplinary duties and tasks being assigned to nursing staff. Minimisation or reallocation of these duties and tasks to other multidisciplinary team members is required to ensure the appropriate use of productive nursing hours. Additional priorities include developing recruitment and retention strategies to maintain staffing numbers, level of expertise and efficient management of scheduled and unscheduled leave. Improving staff participation/compliance with organisational programs such as mandatory/speciality training, succession management and performance development is also required.

In 2009, 76% of ADS staff participated in a District-wide ‘Better Workplaces” staff survey (average participation within the District was 66%). Clinical staff and senior management noted issues related to communication and change management within the ADS, but to a lesser extent then other services were experiencing. In accordance with organisational directions, the ADS developed an action plan with senior/executive management to improve communication processes between all levels of staff. The action plan priorities included:

- commencement of monthly unit multidisciplinary based staff meetings, with clinical portfolios as standard agenda items
- fortnightly meetings between Nurse Unit Manager and Nursing Director
- changes to the monthly reporting structure modified eg. distribution of Program’s balanced scorecard to NUM and reformatting of NUM monthly report
- Clinical Nurse Forum held monthly for services within the Community Teams Program
- staff member to be designated monthly to attend Chief Executive Offices Forum.

The action plan has been implemented with initial feedback from service based staff being positive; however, an increase in the use of indirect clinical hours on a monthly basis has occurred.

The core staff working within this service includes:

- Nurse Unit Manager (1 FTE): provides clinical leadership to staff and is responsible for the professional and operational management of the service including daily staffing, rostering, education/training, recruitment, performance appraisals/management and business planning.
- Clinical Nurses (3.4 FTE): responsible for the assessment and delivery of direct client care, facilitation of clinical learning, portfolio management, preceptorship and team leading in the absence of the Nurse Unit Manager.
- Registered Nurses (3.6 FTE): responsible for the assessment and delivery of direct client care and team leading in the absence of a Clinical Nurse.
- Consultant Medical Officers (1.5 FTE): Responsible for the operational delivery of consultant medical services within the alcohol and drug unit.
- Medical Registrar (1 FTE): works in conjunction with the Consultant Medical Officers to deliver medical services.
- Occupational Therapist (0.2 FTE): supports the delivery of alcohol and drug services by providing occupational assessment, treatment and interventions to clients within the ADS.
- Psychologist (0.2 FTE): responsible for delivering supportive psychological therapeutic services to clients within a multidisciplinary team model of care.
- Social Worker (0.4 FTE): collaborates with the multidisciplinary team and external services to deliver social working services for alcohol and drug service clients and their families/carers.
- Administration Officers (1.5 FTE): provides administrative support to the entire multidisciplinary team.
- Security Staff (2.0 FTE): provides security services directly in the ADS and indirectly to the other services within the Queensland Health Community Health Building.
- Medical/Allied Health/Nursing Students (variable numbers): Undergraduate students attend clinical placements occur on an irregular basis within the unit.

As a superregional service, the ADS has the ability to support undergraduate and postgraduate clinical experience for medical, allied health and nursing students. Significant opportunity exists for the ADS to develop collaborative programs with local universities to improve access to clinical alcohol and drug service experience and education for all health disciplines. In actioning joint tertiary education arrangements, the ADS would work towards implementing service capacity changes to sustainably meet client demand for alcohol and drugs services in the future.

To support the planning of this program, the ADS has partnered with the student placement program which is centrally managed by the District's Clinical Education and Training Unit. Initial plans provide for one undergraduate nursing student to work any day from Monday to Sunday (early and late shifts) for approximately 42 weeks of the year. A minimum of 1.5 FTE of ADS staff with suitable skills in student facilitation will be needed as the student nurse will be allocated a registered nurse/s to work with during their placement. To be able to facilitate students, registered nurses need to have the following attributes:

- minimum of one year clinical alcohol and drug service experience
- completed transition to practice modules for the alcohol and drug service
- working towards or completed organisational preceptorship course

- completed university student facilitator program.

The level of participation in the undergraduate student placement program is likely to increase during the next two to three years. Hence, the current allocation of productive nursing hours for the student placement program will need to be adjusted to support ongoing changes.

The ADS encourages postgraduate study through clinical experience and support provided by the multidisciplinary team. Additional support is available through Queensland Health's Study and Research Assistance Scheme (SARAS) in relation to financial assistance and leave arrangements. The level of assistance provided depends on individual and organisational needs which may vary between academic terms. As there are no SARAS applications for this financial year, no adjustments have occurred to the allocation of productive or non-productive hours.

An increase in the number of transition to practice nursing staff from 1 FTE to 2 FTE is planned for 2011/12. This increase will be supported by the formal introduction of the transition to practice program within the ADS. This program will assist more staff to develop and/or improve their skills in alcohol and drug nursing and will increase the number of staff available to provide services. An increase in the allocation of indirect hours for this program is necessary to ensure a successful outcome is achieved and has been included in the total FTE approved and funded for service expansion (eg. mobile outreach services).

The mandatory training and agreed speciality training requisites for the ADS are not expected to change within 2011/12. Current calculations of productive and non-productive nursing hours for the service include all necessary education and training programs. In consideration of the specialty skills required in the ADS, all non-productive mandatory training time for new staff (11 days) and existing staff (5 days) has been included in the total FTE required to recruit. This will ensure an appropriate skill mix of staff is available to backfill education and training time similar to the processes already established for annual leave and professional development leave. The ADS averages 87% staff compliance in mandatory and requisite training, with strategies to increase compliance to 100% currently under development.

There are two units of activity used to calculate the average nursing hours required within the ADS. They are Nursing Hours per Occasion of Service (NHPOS) and Nursing Hours per Activity Unit (NHPAU). The **average** nursing hours required for the individual services are 1.67 NHPOS, while the **average** hours required for the group sessions are 1.25 NHPAU. These figures represent both direct and indirect clinical hours. Direct hours include all the activities nurses do that directly contribute to care provided to the clients. Indirect activities within the ADS include:

- portfolio management – infection control, workplace health and safety, education/ training and quality improvement/evidenced based practice.
- reporting and managing client and staff incidents
- workplace audits
- policy development and review
- clinical unit education/training
- continual professional development points (registration requirement)
- recruitment processes and retention strategies
- succession planning and performance appraisals
- practice development/evidence based practice/research.

ADS staff acknowledge that not all professional development opportunities relating to registration requirements will occur inside the workplace.

Information technology

The information systems and collections most commonly used within the ADS are detailed in the table below.

Information system	Purpose
Hospital Based Corporate Information System (HBCIS)	Queensland Health's enterprise patient Administration System, capturing and managing both admitted and non-admitted patient, clinical and administrative data.
PractiX	Records data relating to client demographic, clinical notes, investigations, correspondence and billing requirements.
FERRET	A primary health care patient information and recall system. FERRET assists staff care for clients and manages the services they provide such as whole of life care plans, facility management and appointments, chronic disease register, Medicare billing, service activity and reporting.
Alcohol, Tobacco and Other Drug Services Information Systems (ATODS)	Allows users to manage, maintain and report on information about clients and their treatment episode.
Public Health Information and Clinical Services Solution (PHICSS)	A single enterprise-wide electronic health record for Queensland Health's Public Sexual Health and HIV/AIDS clinics, Tuberculosis Clinics, Mobile Women's Health Program and Family Planning Queensland.
Primary Related Incident Management and Evaluation System (PRIME)	Management of clinical incidents and health care complaints
Decision Support System (DSS Panorama)	Provides summary data reports displaying aggregate expenditure, budgets, variances and balances for cost centres and account codes for services. Reports are available for agency use, overtime, leave/ absenteeism, position occupancy and work centres.

While the information systems used within ADS provides a wide range of quantitative data useful for monitoring consumer trends and service activity, not all work performed by nursing staff is captured accurately. To improve this situation, qualitative information is also gathered from clinicians to facilitate a comprehensive analysis of the service. Local spreadsheets have been developed by unit staff and approved for use by nursing management and business team to assist the monitoring of nursing workload. These spreadsheets are completed daily and consolidated into a monthly report by ADS nursing staff. However, the collation and distribution of reports adds to the productive nursing hours required within the unit.

Access to data varies depending on the relevance to the clinical position held. For example, client incidents are reported monthly to all levels and categories of the staff within the multidisciplinary team while cost centre reports are provided monthly to management only. Most reports used within the ADS are not automated at an organisational level, hence the business team are responsible for collating and distributing these reports to staff. Access and communication challenges between the ADS staff and the business teams have been noted because finance services are centralised and located off site. New communication strategies and improvements in report format/timeframes have assisted in rectifying these challenges. Additionally, data interpretation/analysis have been included as core development skills in performance appraisals and succession management plans for grade 5, 6, and 7 nursing staff to assist in the local business planning practices. These activities have been included in the calculation of productive nursing hours.

In the ADS, medical, nursing and administration staff are primarily responsible for data input. Issues with reliability, accuracy and the timely input of data have been noted during the past year. Mitigating strategies such as information system training programs and information technology awareness raising sessions have been commenced for the entire multidisciplinary team significantly increasing indirect clinical hours. These strategies are coordinated and monitored by the NUM. Limited access to computers has been highlighted by staff as a major barrier to inputting and/or retrieving data in a timely manner. A request has been made for computer terminals to be installed in all consultation rooms. This request has been categorised as a high priority for the service during this year's annual Community Program Team's planning day.

Performance

The financial performance of the ADS over the past three years shows labour expenditure is above the costs budgeted:

- 2010/11 – 14% overrun in labour expenditure compared to budget
- 2009/10 – 12% overrun in labour expenditure compared to budget
- 2008/09 – 11% overrun in labour expenditure compared to budget.

(Data source: DSS)

The major factors attributing to this increase are:

- external agency use
- increasing number of new clients accessing the service
- increasing number of clients accessing the service from other Districts eg. >30% of clients are from outside District X
- increasing demand for individual appointments/services
- leave management eg. emergent and scheduled arrangements.

(Data source: DSS, ATODS information system, and local spreadsheets)

There have been marginal fluctuations of between 3 to 4% in consumables expenditure when compared with the budgets over the last two financial years, primarily due to changing pharmaceutical therapies and associated costs. Overall, the performance of the MHAIU has been sound when compared with the desired targets set for the service.

➢ Client complexity/acuity overview

Main treatment types in the Alcohol and Drug Service
(Data source: ATODS information system)

Treatment Types	Clients % (2010/11)	Client % (2009/10)
Withdrawal management (detox)	17	16
Counselling	38	39
Rehabilitation	7	8
Support and case management	8	6
Information and education only	10	12
Assessment only	14	12
Other	6	7

Principal drugs of use of clients accessing services
(Data source: ATODS information system)

Drug	Client % (2010/11)	Client % (2009/10)
Alcohol	43	42.8
Amphetamines	12.7	11.8
Benzodiazepines	1.6	1.5
Cannabis	21.7	22.1
Cocaine	0.4	0.3
Ecstasy	0.8	0.9
Heroin	10	11.1
Methadone	2.1	2.4
Other opioids	2.5	1.5
All other drugs	5.2	5.6

Sex and age of clients accessing services
(Data source: ATODS information system)

Client Age	Male % (2010/11)	Male % (2009/10	Female % (2010/11)	Female % (2009/10)
10-19	16	15.7	12.2	12.1
20-29	37.2	37.1	31.9	32.2
30-39	25	25.3	27.6	27.5
40-49	14.1	14.2	17.8	17.6
50-59	6.0	5.8	7.9	8.2
60<	1.7	1.9	2.3	2.4

Additional complexity considerations
(Data source: ATODS information system, PractiX)

- 22% new client episodes per year (↑ 3.2% previous financial year)
- 23% of total client services are group contacts (↓0.6 previous financial year)
- 77% of total client services are individual contacts (↑0.3 previous financial year)
- 21.7% of the local population were not born in Australia
- 16% of the population have English as their second language.

Client acuity within the ADS is complex and comparable with other like national services when treatment type, principal drug of use and sex/age of clients are used to benchmark services. The trend in the number of new presentations, requests for individual services and projected growth figures in the local planning areas is increasing and indicate a future rise in client complexity is likely. Workforce plans and staff skill mix profile have been developed to help proactively match the supply of staff with changing client complexity demands. A key priority of the ADS is to support new and inexperienced staff with education and training opportunities appropriate for alcohol and drug health services. Plans to increase educational support supplied by central District services, promote transition to practice programs and develop affiliations with local universities is expected to improve the quality and number of staff available to meet current and future service demands.

There has been minimal change to the nursing hours required to support the direct delivery of quality alcohol and drug services to highly complex clients. Indirect clinical activities such as staff rostering, succession planning, and performance appraisals have

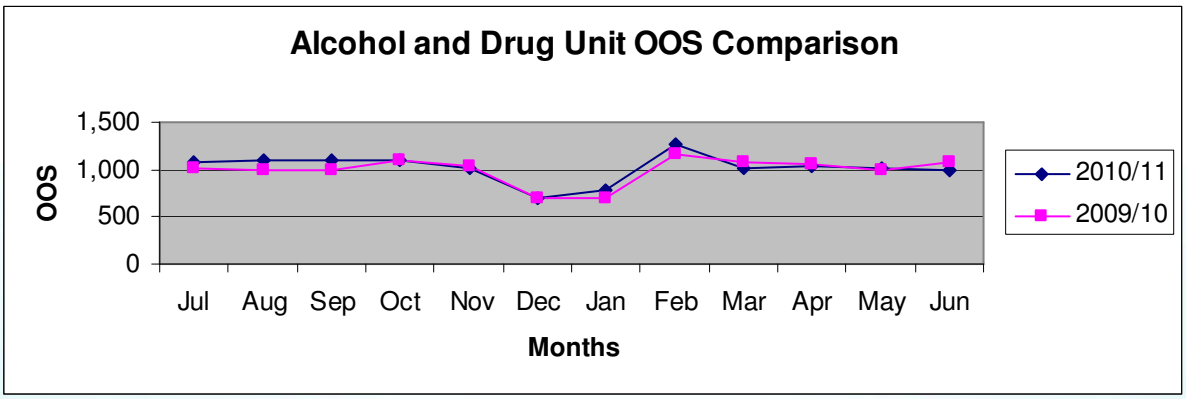
also seen limited increases in the nursing hours required. However, an increase to the number of indirect hours has been approved and funded for the transition to practice program based on clinical hours used in the 2010/11 trial year. This increase has been incorporated into the growth of staff by 0.5 FTE in the outreach service.

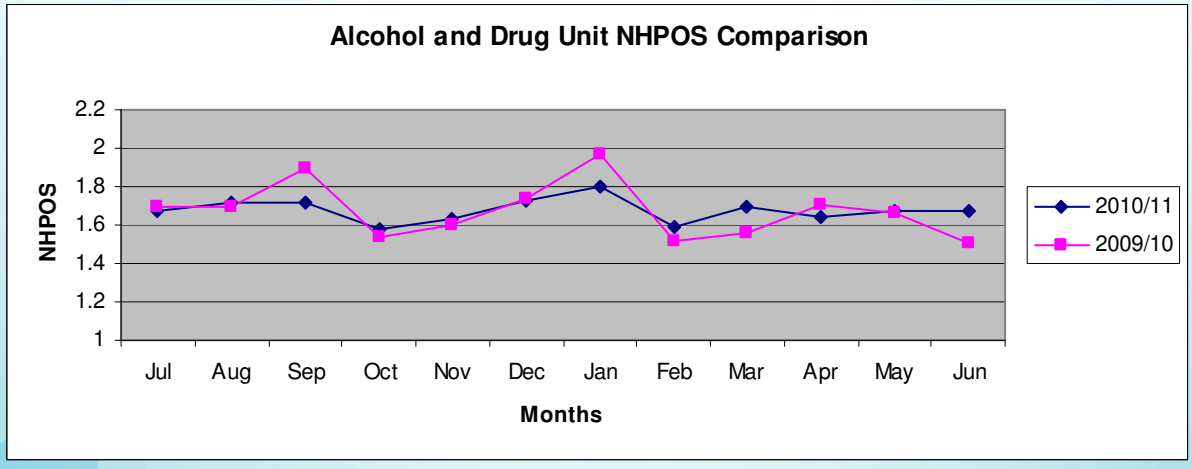
➢ Service activity

Alcohol and Drug Unit (Monthly Overview of Individual Services)

2010/11	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
Tot. hrs required/ month	1799	1884	1892	1719	1657	1209	1418	2026	1710	1705	1677	1667	20366
OOS	1,077	1,098	1,103	1,089	1,016	700	789	1,273	1,006	1,039	1,004	998	12,192
Average NHPOS	1.67	1.72	1.72	1.58	1.63	1.73	1.8	1.59	1.70	1.64	1.67	1.67	1.67

2009/10	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
Tot. hrs required/ month	1,699	1700	1898	1678	1657	1199	1378	1756	1698	1803	1654	1645	19765
OOS	1005	1002	1001	1089	1035	688	701	1153	1087	1054	998	1088	11901
Average NHPOS	1.69	1.70	1.90	1.54	1.60	1.74	1.97	1.52	1.56	1.71	1.66	1.51	1.66





Service activity considerations:

- 7,280 individual occasions of service in 2010/11 (↑0.4% previous financial year)
- 208 group education/counselling sessions delivered in 2010/11 (average 4.2 attendees)
- 22% new client episodes per year (↑ 3.2% previous financial year)
- 23% of total client services are group contacts (↓0.6% previous financial year)
- 77% of total client services are individual contacts (↑0.3% previous financial year
- 35% 'did not arrives' were recorded for new and existing clients (↑1.5%).

➢ Evaluation of occasions of service

Over the last two financial years, there has been no significant change in the number and trend of client activity despite a 22% rise in new referrals. A stabilisation of paid nursing hours has occurred during 2010/11, a result of service improvements in roster management and scheduled leave planning. Further improvements in the allocation of productive nursing hours are planned with the establishment of an annual training and education calendar to coincide with peaks (eg. February) and troughs (eg. December and January) in client activity. District projections indicate a 17.6 % growth in population by 2026. Local planning areas 2, 4 and 6 have been identified as the areas with the highest growth in population. To manage this growth, plans have been approved to commence alcohol and drug outreach services in those areas. Phase 1 - commencement of nursing outreach services will begin this year with the employment of 0.5 FTE (registered nurse). This action will be repeated each year until 2016.

➢ Financial outcomes

The nursing labour costs within the ADS are over-budget primarily due to the high use of overtime. For the current year labour costs are 14% above budget which is a 3.5 % improvement on the previous financial year. Productivity measures indicate the increased labour costs can be mitigated in part by client activity however improvements in patient scheduling such as decreasing the number of DNAs and the commencement of the alcohol and outreach services will improve this result. Investment in recruitment and retention strategies as well as transition to practice programs has contributed to reducing the labour costs in the last financial year. Plans to progress this work further is outlined in the service objectives; transitioning recruitment and transition to practice programs to centralised District services.

➢ Quality of service

The quality of the services provided within the ADS is monitored through a monthly balanced scorecard. Data is collected regarding four key performance areas which have been influenced by internal and external strategic directions, policies and legislation. The four areas are:

- clinical services management
- risk monitoring and management
- client flow management
- staff management.

Key performance summary

Key performance areas	Performance indicators	Results (Dec 2010)	Service actions
Clinical Management	No. Group sessions		Increase group session through multidisciplinary team service delivery planning and client education.
	No. GP shared care		Continue monitoring.
Risk Monitoring and Management	Completed discharge summaries		Continue monitoring.
	Client incidents		Continue monitoring
	Staff incidents		Continue monitoring
	Workload grievances		Review of staff roles and responsibility. Actioning of improvement strategies for rosters and leave management.
Client Flow	No. 'Did Not Attend'		Continued monitoring and reporting to multidisciplinary team members, multidisciplinary team action plan.
	No. Waiting list		
	No. external referrals		
Staff Management	Overtime use		Transition to practice program, increase capacity to support undergraduate nursing students, growth of ADS skills in casual staffing pool, overtime reduction strategies involving scheduled leave management.
	Agency use		
	Sick leave		
	Mandatory/requisite training		Develop annualised schedule for training requirements. Incorporate into PAD process and clinical portfolios.
	Education participation		Continue monitoring.
	Research participation		Review research opportunities with District nursing research unit and local universities.

Table Legend

- On target
- < 10% from target
- > 10% from target

External environmental analysis

Policy/legal factors

The key policy and legal documents impacting the provision of alcohol and drug services by the ADS include:

- Queensland Health Dual Diagnosis Policy
- Queensland Needle and Syringe Policy 2009
- Queensland Drug Action Plan 2011-2012
- Queensland Health Smoking Management Policy
- Queensland Strategy for Chronic Disease 2005-2015
- Queensland Closing the Gap Report 2008/09
- Queensland Health Strategic Plan
- Strategic Directions for Chronic Disease Prevention 2009-2012
- National Alcohol Strategy 2006-2011
- National Drug Strategy 2010-2015
- National Centre for Education and Training in Addiction publications eg. Alcohol and Other Drugs Workforce Development Issues
- *Tobacco and Other Smoking Products Act 1998*
- *Liquor Act 1992*
- *Drug Misuse Act 1986*
- *Health Act 1937 – Health (Drugs and Poisons Regulations) 1996*

Demands placed on the service as a result of policy, guidelines, plans and legislation impacts both direct and indirect nursing hours. A number of influential factors and their associated demands have been included in the allocation of nursing hours per occasion of service while others have been captured in alternative demands such as quality and safety and/or education and service capacity building.

Economic factors

- International/national: The global financial crisis continues to impact funding capacity at the State and Federal Government level.
- Public/private interface: The ADS is a superregional service which provides a diverse range of ambulatory alcohol and drug services to communities primarily located within the south-east corner of Queensland. There is considerable reliance on other government and non-government agencies to assist in the provision of holistic, cost-effective care to clients. Private community and health organisations regularly refer clients to this service.
- Private health care providers: The ADS frequently interacts and coordinates care with private detoxification and rehabilitation services/networks, General Practitioners and private specialists.
- Capital works: Nil planned.

Social factors

The population of District X in 2011 is currently 875,551 people and is expected to grow to 1,062,402 by 2026. The socioeconomic index for areas (SEIFA) decline rankings for local government areas within the District range from 6-10 which indicates diverse levels of advantage and disadvantage within the communities serviced by the ADS. Culturally, the population is made up of 1.7% Aboriginal and Torres Strait Islander people, 21.7% of residents were born overseas and for 16% of the population, English is there second language. As a major provider of primary alcohol and drug health services within the District, the community has high expectations in relation to accessibility and availability of treatments offered by ADS. Feedback from consumer, carers and third party providers is regularly sought through formal and informal means. All information collected is used to support service improvements.

As a highly specialised primary and community service, access to appropriately skilled casual/agency staff is limited which directly impacts the allocation and replacement of staff leave, overtime usage and number of part-time extra shifts used. In pursuit of balancing service supply with demand, the commitment to sustainable staffing practices is a priority. Strategies have been developed to improve recruitment and retention practices, and 'grow our own' staff through transition to practice programs and affiliations with universities. These strategies are expected to increase the number and availability of skilled nursing staff within the service, and reduce the reliance on high cost labour options such as overtime and agency staff.

Technological factors

Currently, telehealth facilities are not used within the ADS. Plans to trial these services are emerging however as yet no clear directions have been agreed. While telehealth services are not suitable for the direct delivery of care to a large percentage of clients in this service, opportunities do exist for staff in education and training. This possibility is being explored by medical and nursing education groups.

Research and evidence based practice

Two 12 week practice development programs have been incorporated into the calculation for productive nursing hours. The time committed to practice development has been averaged throughout the year but will be rostered as separately blocks. One staff member has been awarded a research scholarship with University A. The study is managed independently by the university and staff member involved. SARAS leave has been approved to support the staff member during the study which has had minimal impacts to the staff roster.

Strengths, weaknesses, opportunities and threats (SWOT) analysis

Strengths

- Demand for services increasing
- Approval and funding for outreach services
- Integrated multidisciplinary team focus
- Staff committed to improving service capacity
- Successful trial of transition to practice program
- Succession management strategy
- Committed and motivated staff
- Low staff attrition
- Focus on education and training
- Clinical portfolios
- Committed to evidence based practice programs
- Collaborative arrangements with other services (public and private)

Weakness

- Computers access
- Data management
- Outreach services will be provided off site
- Physical position of service lacks capacity for growth
- Limited access to experienced staff within District's casual/relief pool
- Nursing 'role creep'
- Overtime and agency use
- Growing demand for productive hours
- Recruitment management
- Low level use of telehealth facilities
- High number of DNAs
- Involvement in nursing research
- Small nursing team

Opportunities

- Health reform
- University affiliations
- External research grants
- External non-recurrent funding
- Collaborative programs with more primary and private services

Threats

- Unstable global economy
- Health reform
- Funding arrangements
- Poor awareness of alcohol and drug initiatives/programs within the local community

Appendix C

Balance Scorecard Example

Alcohol and Drug Service Monthly Balance Scorecard 2010/11

Key performance area	Performance indicator	Performance target	Performance achievement	Rating
Clinical measurement	No. group sessions	35%	23%	▲
	No. GP shared care	30%	31%	▲
Risk monitoring and management	Completed discharge summaries	100%	97%	—
	Client incidents	<5%	2%	—
	Staff incidents	<5%	1%	—
	Workload grievances	0	11	▲
Patient flow	No. 'Did Not Attends'	<15%	35%	▲
	No. Waiting list	<5	1	—
	No. External referrals	25%	24%	▼
Staff management	Agency usage	<0.06 FTE*	0.07 FTE	▲
	Overtime usage	<0.12 FTE	0.4 FTE	▲
	Mandatory training	>100%	87%	▲
	Education session attended by staff	>15	17	▲
	Evidence based practice projects/research	>2	1	—

* Based on Queensland Health's target of 0.75%

Table Legend

On target	▲ Performance Improvement
< 10% from target	▼ Performance Decline
> 10% from target	— Nil change in performance

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Glossary

Balance scorecard – a range of indicators used to measure an organisation's financial and non-financial performance.

Business Planning Framework: A tool for nursing workload management – the mandated tool used by Queensland Health nursing and midwifery services to balance service demand and the supply of nursing/midwifery services

Client complexity – a measure used to assist nurses and midwives in identifying and planning the resources required to meet the care demands of consumers.

Clinical Services Capability Framework – a coordinated and integrated approach to health service planning and delivery in Queensland.

Diagnostic related groups – patient classification system.

Direct nursing/midwifery hours – the nursing/midwifery hours utilised to support direct care to clients.

External environmental analysis – analysis of the external environmental factors which can potentially influence a service.

Full-time equivalent – full-time employee working 38 hours per week.

Indirect nursing/midwifery hours – the nursing/midwifery hours utilised to support the delivery of direct care to clients.

Internal environmental analysis – analysis of the internal environmental factors which can potentially influence a service.

Service activity – work performed to produce outputs.

Service Profile – describes the role and function of a service.

Socioeconomic index for areas – product developed especially for those interested in the assessment of the welfare of Australian communities.

Study and Research Assistance Scheme – designed to assist employees to participate in further education.

Productive nursing and midwifery hours – hours that contribute to patient care and include both direct clinical and indirect clinical care.

Non-productive nursing and midwifery hours – hours over and above the direct and indirect hours covered in productive nursing hours. When converted to costs, these hours are often referred to as 'on-costs'.

Nursing hours per occasion of service – the average nursing hour per unit of activity for ambulatory patients.

Nursing hours per patient day – the average nursing hours per unit of activity for inpatient services.

Occasions of Service – any examination, consultation, treatment or other service provided to a non-admitted patient in a functional unit or a health service facility.

Weighted Activity Units – a measurement used to determine the relative value of a services activity.

List of acronyms

ACE	Aged Care Evaluation
ACIR	Australian Childhood Immunisation Register
ATODS	Alcohol, Tobacco and other Drug Service Information System
BPF	Business Planning Framework: a tool for nursing workload management
CCNCS	Community Client Need Classification System
CHIMS	Community Health Information Management Service
CN	Clinical Nurse
CNC	Clinical Nurse Consultant
CSCF	Clinical Service Capability Framework
DSS	Decision Support System
EN	Enrolled Nurse
ENAP	Enrolled Nurse Advanced Practice
FTE	Full-time Equivalent
HBCIS	Hospital based Corporate Information System
NHPOS	Nursing Hours per Occasion of Service
NHPAU	Nursing Hours per Activity Unit
NHPPD	Nursing Hours per Patient Day
NOCS	Notifiable Conditions System
NUM	Nurse Unit Manager
OOS	Occasions of service
PHICSS	Public Health Information and Clinical Services Solution
PRIME	Primary Related Incident Management and Evaluation System
RN	Registered Nurse
SARAS	Study and Research Assistance Scheme
SEIFA	Socioeconomic index for areas
VIVAS	Vaccination Information and vaccination Administration System

List of figures