Upper Murray Health & Community Services

Victorian "Nurse Practitioner" Project

Phase 4 Round 4.1

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Executive Summary

Background

Upper Murray Health & Community Services was successful in its application to the Department of Human Services to participate in Phase 4 Round 4.2 Victorian Nurse Practitioner Project. The project aimed to support rural services such as ours to develop a service plan for Nurse Practitioner (NP) services. Our application focused on undertaking a feasibility study into the role of NP. The project aimed to determine the feasibility of establishing a nurse practitioner role or roles at UMHCS, and if appropriate develop a service plan that would be acceptable, appropriate, functional and sustainable for the health service and the community.

Project Strategies

A high capacity and enthusiastic project team, made up of executive management, nursing, allied health, medical staff and consumers, was established to inform and oversee the project. The team determined the methodology, participated in data analysis, proposed and evaluated the models.

Three potential models were identified. The first model involved expanding the scope of the Nursing Unit Manager role in the acute and residential care setting, with a focus on emergency and aged care. The second model looked at extending the role of the community nurse with a focus on both community and residential aged care. The third model looked at extending the General Practice Nurse Consultant role to a NP role, with a focus on women's health, immunization and health promotion.

All three models were initially considered to have potential and to warrant a more comprehensive analysis. Comprehensive data was gathered and presented to the team

to inform the development and analysis of the model. Data included our catchment profile (demographics & socioeconomic status), a nursing workforce profile (age, qualifications, tenure & status) and nursing role profiles (occasions of service, time and motion studies, roles and functions). Furthermore, a business case was undertake around each proposed model. The business case examined the costs and benefits of a NP role within the organisation.

The project values of acceptability, appropriateness, functionality and sustainability were used as the analytical framework for the project. The meaning of the value statements were as follows:

The project needs to be:

> **Acceptable** to our organization specifically our medical staff, our nursing staff, our clients, our community and the Nurses Board of Victoria (NBV).
>
> **Appropriate**: the role will complement existing service plans and contribute to health outcomes.
>
> **Functiona**l: the role will be able to function within the specialist scope of practice and compliment existing care.
>
> **Sustainable**: the role will be cost effective and possible within existing resources.

The values formed a significant part of the project with each model analysed using the values as an analytical framework.

Analysis

Each of the models were considered carefully and analysed against each of the values. Table 1 provides a summary of the outcome of each model. While most models were considered to be appropriate and functional, overwhelmingly the cost of NP services were considered to be unacceptable and unsustainable.

	Model 1 Nursing Unit Manager Model (emergency care and aged care focus)	Model 2 Community Nurse/Aged Care Model (community and residential aged care)	Model 3 General Practice Nurse Consultant Model (women's health, immunization, health promotion)
Acceptable			
Appropriate	√	√	√
Functional	√	√	√
Sustainable			

Table 1 Analytical Framework for NP Models

The burden of cost shifting diagnostic and pharmacy services to either the organization or the client was the reason for all models being assessed as unacceptable. The team recognized the inability for the patient or the health service to receive subsidies for the costs of a NP consultation. The consumers on the team strongly objected to any cost being borne by the client or the health service. Furthermore, the team also objected to any proposal that would put a practitioner at legal risk (eg pre - signing of diagnostic services). The team recognized the value of a NP in settings, such as large facilities where the costs were absorbed and beneficial in terms of health outcomes (eg. more timely assessment associated with reduced waiting times in emergency departments) or where the role had designated funding.

Conclusion

The burden of cost to the client or the community is an issue for all small rural communities. Current legislation places the benefits of the NP at risk. Our team concluded that a NP role was beyond the resources of our agency and community. This is not to say that we would not reconsider the options should an eager and enthusiastic nurse present express interest or NP's were approved access to a Medicare provider and PBS prescriber numbers.

SECTION 1:

Introduction

This report summarises and describes the process undertaken to develop and analyse an integrated service plan for a Nurse Practitioner role within our agency. A number of service areas were identified and analysed to demonstrate if a NP role was feasible, acceptable and sustainable for our community and organisation.

Background

Upper Murray Health & Community Services (UMHCS) was a successful applicant in the "Nurse Practitioner Project – NP Service Plan for Rural Health Services" funded by the Department of Human Services (DHS),Victoria. UMHCS' application involved undertaking a service planning process to analyse the opportunities for a NP role in a number of service areas. We were interested in analysing how the role could compliment and support the rural general practitioner in the emergency department and across a two community specialist areas. It was anticipated that the project would support general practitioner preferences and trends to work part time

The UMHCS "Nurse Practitioner Project" was undertaken over a period of six months from April until September 2008. The project aims were to develop a service plan that was acceptable, appropriate, functional and sustainable for UMHCS and the community.

Upper Murray Health & Community Services

Upper Murray Health and Community Services is a diverse, integrated, multipurpose service, serving approximately 3,200 people living in a number of small towns and

valleys and spread over approximately 4,000 square kms. The main centre of Corryong is located 130 kms and a 90-minute drive from Albury/Wodonga, the nearest major regional centre. The catchment includes the towns of Khancoban, Walwa, Jingellic, Tintaldra, Cudgwa and surrounding valleys. Walwa has a Bush Nursing Centre which receives funding through UMHCS and DHS to provide centre based and community services.

As a Multi-Purpose Service (MPS), UMHCS represents an integrated, flexible service with the ability to shift resources to meet the needs of the community. MPS's are a joint Commonwealth and State government initiative. They were designed to overcome the restrictions of program funding barriers by pooling funds from acute hospital, aged care, primary health and community support services to enable flexible use of all services to better meet the needs of the community (Evans et al.,2002). The health service provides a large range of health and community services (See Table 2)

Medical Services	**Home Care Services**	**Education Services**

■ 3 Salaried Medical Officers
■ 2 General General Practice Nurse Consultants
■ Women's health nurse
■ Visiting Surgeon and Paediatrician
Acute care
■ Acute care services
    ■ 10 acute care beds
    ■ Emergency Department
■ Pathology and imaging
■ Domiciliary midwifery
Allied Health
■ Physiotherapy
■ Occupational therapy
■ Allied Health Assistants
Visiting Allied Health Services
■ Podiatry
■ Dietician
■ Speech therapy
■ Continence management nurse
Residential
■ Residential care (35 beds) Retirement village
	■ HACC services
	■ District Nursing
	■ Meals on Wheels
	■ Palliative care
	■ Day Activity Centre
	■ Continuing care program
	■ Day activity centre
	■ Community Transport
	Mental health/Social Support
	■ Mental health Nurse
	■ Counseling/Social Work
	■ Child and Adolescent Counseling
	■ Alcohol and drug support
	■ Parents support group
	■ 'Blossom' - program for women with depression & anxiety
	■ Food Bank
	■ Visiting psychiatry services
		■ Australian Institute of Flexible Learning (RTO)
		Community Groups
		■ Community Liaison Group
		■ Chronic Disease Network Group
		■ Mens Group
		■ Cancer Support Group
		■ Mental Health Support Group
		■ Carers Group
		    ■ Diabetes Support Group
		Health Promotion
		■ Health & fitness Centre & classes
		■ Diabetes Education
		■ Financial Counseling
		■ Youth support and recreation services

Table 2 List of services provided by Upper Murray Health and Community Services

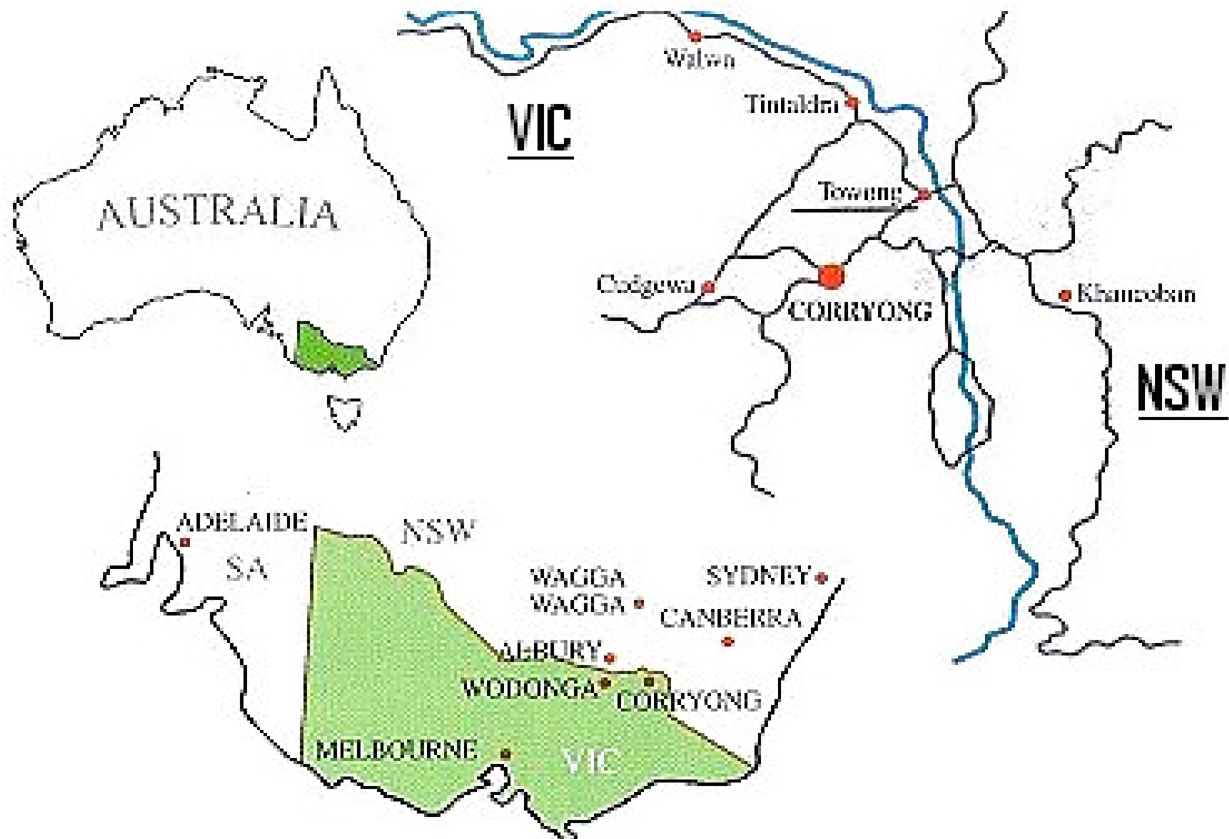
Upper Murray Demographics

District Profile

Corryong is located in the far North East of Victoria, at the headwaters of the Murray River and the foot of the Australian Alps. It is a paradise for outdoor enthusiasts. The population of the town is around 1200 and our catchment area total population is approximately 3200 . The area is known for its agricultural & forestry industry. Like the rest of Australia the rural community has struggled with drought and economical difficulties in the last decade.

Corryong is classified as RRMA 5, ARIA 3.14 and ASGC 3.050. ARIA, or 'Accessibility/Remoteness Index of Australia' is used to classify townships by their degree of accessibility and grades locations on an index from 0 to 12 A score of 3.14 is considered to be accessible meaning that there are some restrictions to accessibility of some goods and services and opportunities for social interaction (AIHW, 2004). The RRMA or 'Rural, Remote and Metropolitan Areas' classification is based on remoteness and population size, and scores local areas on a scale of 1-7. RRMA 5, or Rural Zone 3, is the class designated for rural urban centres with a population of <10,000 (AIHW, 2004). The Australian Standard Geographical Classification (ASGC) is a hierarchical classification system of geographical areas and consists of a number of interrelated structures. It provides a common framework of statistical geography and enables the production of statistics which are comparable and can be spatially integrated. (Values range from 0 to 15 with 15 being the most remote). ASGC 3.050 is classified as Outer Regional (<2.40-5.92).

The UMHCS catchment area, outlined in Map 1, is situated in a natural "cul de sac" surrounded by mountain ranges. It involves 2 states (Victorian and New South Wales) and parts of three Local Government Areas – south eastern area of Greater Hume Shire, southern border area of the Tumbarumba Shire and the eastern part of Towong Shire (Part B).



Map 1 The Upper Murray Catchment.

Population Characteristics

UMHCS is required to obtain customized data from the Australian Bureau of Statistics (ABS) due to the aggregation of districts and jurisdictions that make up the catchment. The population of the Upper Murray catchment has declined from 3394 in 1991 to 3104 in 2006 representing a reduction of 290 people or 8.55%. In 2006, 22% of the population were over the age of 65 years which had increased from 2001 when there were 14.4% over the age of 65 years (see Figure 1).

Other population characteristics include:

A decline in the younger age group.

The age group 45-65 has also markedly increased from 25.3% to 30.8%.

More than 50% of the population is aged 45 or older.

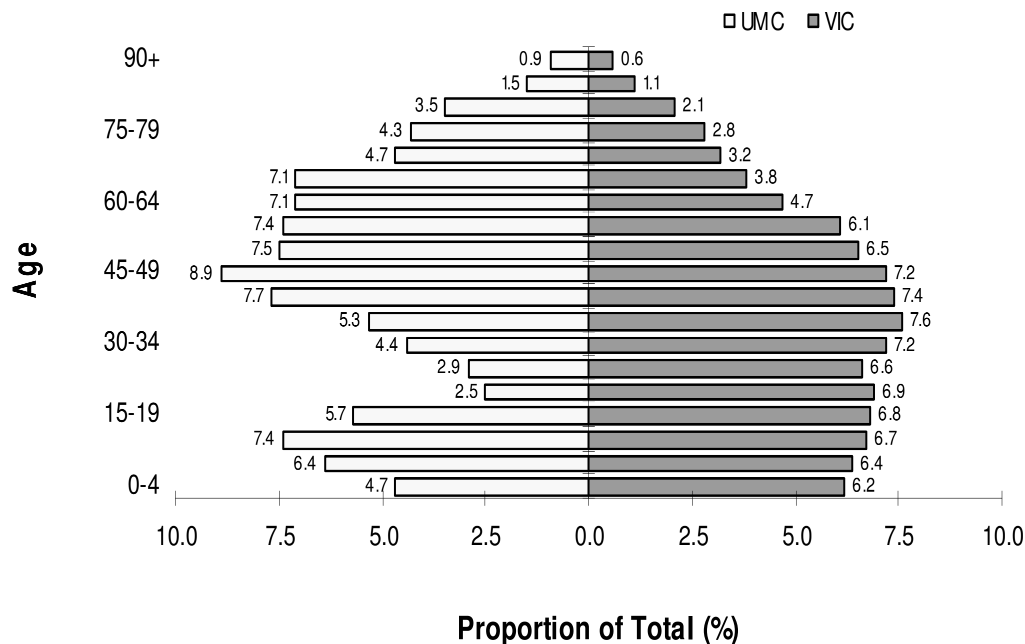


Figure 1 Population Pyramid, Upper Murray Catchment, 2006

Socio-economic indicators

The Upper Murray community income average is relatively lower than the rest of Victoria. The most common stated weekly income, Figure 2, is $150-$249 and there are fewer people on higher wages than the remainder of Victoria. Our economic situation has influenced how we provide services. For example our medical clinic bulk bills saving the community an estimated $391,457 per annum, compared to a billing practice.

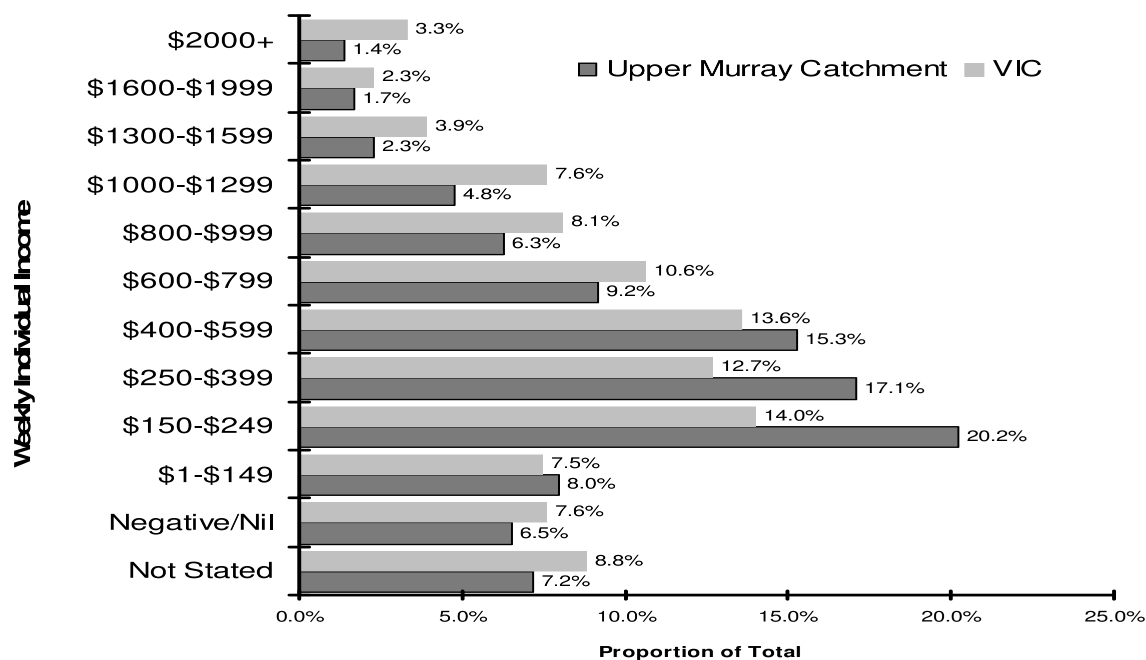


Figure 2 Weekly Individual Income, Upper Murray catchment and Victoria, 2006

Socio-economic Indexes for Areas (SEIFA) have been customised by the ABS, using 2006 census data for our catchment. Each index has an average value (across all collection based values of Australia) of 1000 and a standard deviation of 100 index points. The higher the index result, the better off an area is. In the Upper Murray collection districts, Corryong is the most disadvantaged area followed by Khancoban and Walwa. The SEIFA data was presented to the NP project team to inform the project.

SEIFA Scores

Geographic area, 2006 Census Collection District (CDs)	*Usual Resident Population*	*Index of Relative Socio-Economic Advantage/Disadvantage*	*Index of Relative Socio-Economic Disadvantage*	*Index of Economic Resources*	*Index of Education & Occupation*
Walwa Catchment Area (a)	381	953	983	972	1054
Corryong Catchment Area	2,189	930	977	960	972
Khancoban Catchment Area	537	970	1,024	996	1005
Total Walwa/Corryong/ Khancoban Catchment Area (a)	3107	940	986	967	988

Table 3 Social Economic Indexes for Areas (SEIFA), Upper Murray catchment, 2006

SECTION 2

Scope of the Project

The project aimed to determine the feasibility of establishing a nurse practitioner role or roles at UMHCS, and if appropriate develop a service plan that would be acceptable, appropriate, functional and sustainable for the health service and the community.

Project Management

The Project was coordinated and undertaken by a Project Worker who was supported by a Project Manager. The Project Worker is a part time medical receptionist who has been employed at UMHCS for over ten years. The joint role of medical receptionist and project worker contributed significantly to the success of the project. The Project Worker has also lived in the area for twenty-six years and has an established background in the community. The Project Manager is the agency's Health Services Manager. She has significant experience in nursing management and education, project management and research. The project manager was able to supervise and support the Project Worker especially in the area of research.

Project Strategies

Project Team

The Project Worker called for expressions of interest from stakeholders. This included medical, nursing, allied health and management staff and members of UMHCS' Community Liaison Group (CLG) and the Consumer Health Advocate. A number of stakeholders expressed interest in participating in the project.

The project team consisted of:

- Three Community Liaison Group Members UMHCS' Consumer Health Advocate
- Chief Executive/ Director Nursing
- Director of Medical Services
- Health Services Manger/Rural Health Academic Network (Project Manager)
- Nurse Unit Manager
- Acute & Residential Services Manager
- General General Practice Nurse Consultants
- District/Community Nurses
- Clinical Nurse Consultant /Diabetes Educator
- Grade 5 After Hours Nurse Managers
- Clinical Nurse Consultant/Mental Health
- Other Staff as they were able to participate
- Health Promotion/Community Development Worker

This team met monthly and supported the worker throughout the project ensuring participation and contribution was representative of everyone with an interest in this area. Regular monthly meetings were held to propose models, analyse the data, and make recommendations.

Project Objectives

The project objectives were:

1. To establish a team of stakeholders interested in a feasibility study.
2. Review our nursing workforce trends over the past 5 years.
3. Review our current service plan to identify any service gaps.
4. Use the data to identify opportunities for a NP.
5. Use the data and information gained to determine service areas that may benefit from a NP role within a 5 year time frame.

6. Undertake a scenario based cost benefit analysis.
7. Present options for a recommendation.
8. Progress a service plan based on the recommendation.

Project Vision

The vision adopted by the project team was ***'to know our capacity for Nurse Practitioner/s"***

Project Mission

The mission or purpose was "***to determine whether we have a role for Nurse Practitioner/s".***

This meant that our project needed to be able to demonstrate that the role would:

be acceptable to the community and the organization;
enhance care and improve client outcomes;
complement the existing workforce; and
be sustainable within current resources.

Project Values

The project team adopted a set of values which became the framework for analyzing the project.

The project values were:

Acceptable*:* the role will be acceptable to our organization specifically our medical staff, our nursing staff, our clients, our community and the Nurses Board of Victoria (NBV).

Appropriate**:** the role will complement existing service plans and contribute to health outcomes.

Functional**:** the role will be able to function within the specialist scope of practice and compliment existing care.

Sustainable: the role will be cost effective and possible within existing resources.

The project team recommended that we focus**,** review and examine the possible role in:

Aged Care
Accident and Emergency
Community Nursing
General Practice Nursing

Consumer Participation

UMHCS has an established history of ensuring consumer and community participation in any decisions that impact on the community. Consumer participation in the Nurse Practitioner Project was essential to assist in determining whether or not there was an acceptable role for a NP within our organisation and community. Our belief is that consumers make the right decision when they are provided with the best information available. Our Community Liaison Group (CLG) acts as an interface between the agency and the community. Members are recruited by considering a community profile and identifying people who are connected with a range of groups and clubs across the community. A Consumer Health Advocate (CHA) role complements the consumer participation strategies. UMHCS acknowledges that consumer participation still depends on key individuals and that they are only included where they want to be or where asked to be, but as these individuals are empowered and informed, an increasing number are actively participating in the health service (Hoodless et al., 2008).

The presence of members of the CLG and the CHA allowed robust discussion about the role and function of a NP. Consumers asked relevant and important questions many of which are listed in Table 4. It was acknowledged early in the project that broader community consultation was beyond the scope of the project. Further, UMHCS's community led consultation program was in progress and it was agreed that we would not burden our community with another consultation process. The CLG members and

CHA participated in developing our mission, vision, project objectives and analyzing the data.

■ *What is a Nurse practitioner?*	*Will the study/project be looking at what work will the NP perform?*
■ *Why is UMHCS taking on this project?*	■ *What areas of the agency should the study be looking at?*
■ *What benefits would a NP bring to our agency and area?*	■ *What would be the expectation of the community?*
■ *Does a NP role tie in with shortage of Rural GP's?*	■ *Are we the only agency in Victoria taking on this study?*
■ *Who would pay? Community or Agency? Eg Pathology/Xray's/Pharmacy*	■ *Is an NP role feasible for UMHCS?*
■ *Do we invest in any proposed models?*	■ *Is it a backward step to community if it is going to cost patients?*
■ *How do the GP's feel about an NP role?*	■ *Do the GP's still need to cover call if we have an NP?*
■ *Should we be looking at the aging demographics?*	■ *Do we have any Potential Candidates?*
■ *Do we advertise for a NP position?*	■ *If we don't look at an NP role now, what will happen?*
■ *Are we convinced that an NP for this area is warranted?*	■ *Is this affordable for our community?*
■ *Do we take it as a support of service model or propose a NP Model?*	■ *Will the MBS system change and recognise NP's?*

Table 4 UMHCS NP Project Consumer Questions

Staff Consultation

Staff participation and consultation was also critical to the Project. The importance of the Director of Medical Services (DMS) and nursing staff participation was vital to ensure our process and any proposed models were acceptable and appropriate and would compliment and assist the existing health service. A collaborative role would also eliminate any potential crossing of professional boundaries and differences. UMHCS Health Promotion and Community Development worker also participated providing us with input from a non-medical perspective.

Nursing Workforce Profiles

One of the early strategies was to undertake a profile of our nursing workforce. UMHCS like other rural areas has the majority of the nursing staff working part time (74%). These people are generally working to support themselves and their families and to supplement farming and family business income. Data was collected over a four year period 2003 to 2007. Our current nursing staff workforce data, shows that 74% of nursing staff work part time and 4% casual (see Table 5).

Year	**Full Time**		**Part Time**		**Casual**	
2003/04	**10**	**22%**	**35**	**78%**		
2004/05	**10**	**23%**	**32**	**77%**		
2005/06	**11**	**20%**	**46**	**80%**		
2006/07	**11**	**23%**	**31**	**65%**	**5**	**12%**
2007/08	**11**	**25%**	**31**	**71%**	**2**	**4%**

Table 5 UMHCS Nursing Workforce Working Status July 2008

Our demographic profile demonstrates an ageing workforce with only 15% of nursing staff under the age of 39 and 49% over the age of 50 years (Average age 47 years). We compared our data with the workforce study commissioned by Victorian Hospitals

Industrial Association and undertaken by Health-e Workforce Solutions Pty 2007. UMHCS nursing staff are older overall with 50% less in the 31-40 year age group (See Table 6). The average age was higher, 47 years, compared to the state average of 43 years.

Aged Distributions						Average Age
Category	**21-30**	**31-40**	**41-50**	**41-60**	**60+**	
UMHCS	**4%**	**11%**	**36%**	**38%**	**11%**	**47.66 yrs**
Rur<300	**13.2%**	**22.9%**	**36.7%**	**23.5%**	**3.7%**	**43.6 yrs**

Table 6 UMHCS age distribution compared to Victoria

Tenure				
Years	**0-9**	**10-19**	**20-29**	**30+**
Number	**24**	**10**	**12**	**1**
%	**50%**	**21%**	**25%**	**4%**

Table 7 Tenure of Nursing Staff at UMHCS

Other demographic features that we identified included:

- 93.5% nursing staff are female.
- 50% nursing staff have a tenure of 0-9 years (see Table 7).
- Sick leave has seen a series of peaks and troughs and fluctuated over the 4 year period.
- Average age of retirement is 60.88 years
- Recruitment and retirement has nearly balanced with a total of 15 retirements and 18 recruited during the same period.

Recruitment and Retention of Nursing Staff

We were particularly interested in the recruitment and retirement pattern with our ageing workforce. Like other small rural health services, we have experienced difficulty

recruiting nursing staff and recognise that we cannot compete with coastal and major centres in terms of attracting younger nurses to live and work in our community. During the past 5 years we have been fortunate with a number of nurses choosing to come to Corryong for various reasons. In addition, we have become a Registered Training Organisation (RTO www.aif.edu.au) with the aim of 'growing our own' workforce and supporting our people to live and learn in their own community. Furthermore, we have supported a number of division 2 nurse traineeships. We currently have five division 2 nurses who have either completed traineeships or completed Certificate III in Aged Care Work through our RTO and gone on to complete Certificate IV nursing at TAFE. Another strategy to support our local people to pursue a career in health has been the UMHCS Board of Management annual health careers scholarship. The scholarship provides funding for local people to complete tertiary studies in a health career of their choice. Approximately six nursing students have been recipients. We also encourage our nursing staff to apply for nursing scholarships by providing support with the application process.

We recognize that the next five years will be challenging in terms of retaining a nursing workforce. Our RTO is hoping to provide local training to at least division 2 level and UMHCS will continue to provide and encourage an increasing number of undergraduate placements for nursing students from regional universities.

Nursing Qualifications

The NP project required us to profile our nursing staff qualifications and identify any nurses who may have a Masters level qualification suitable for candidature. Two nursing staff have clinically based masters however most nursing staff have a certificate level qualification. (Figure 3)

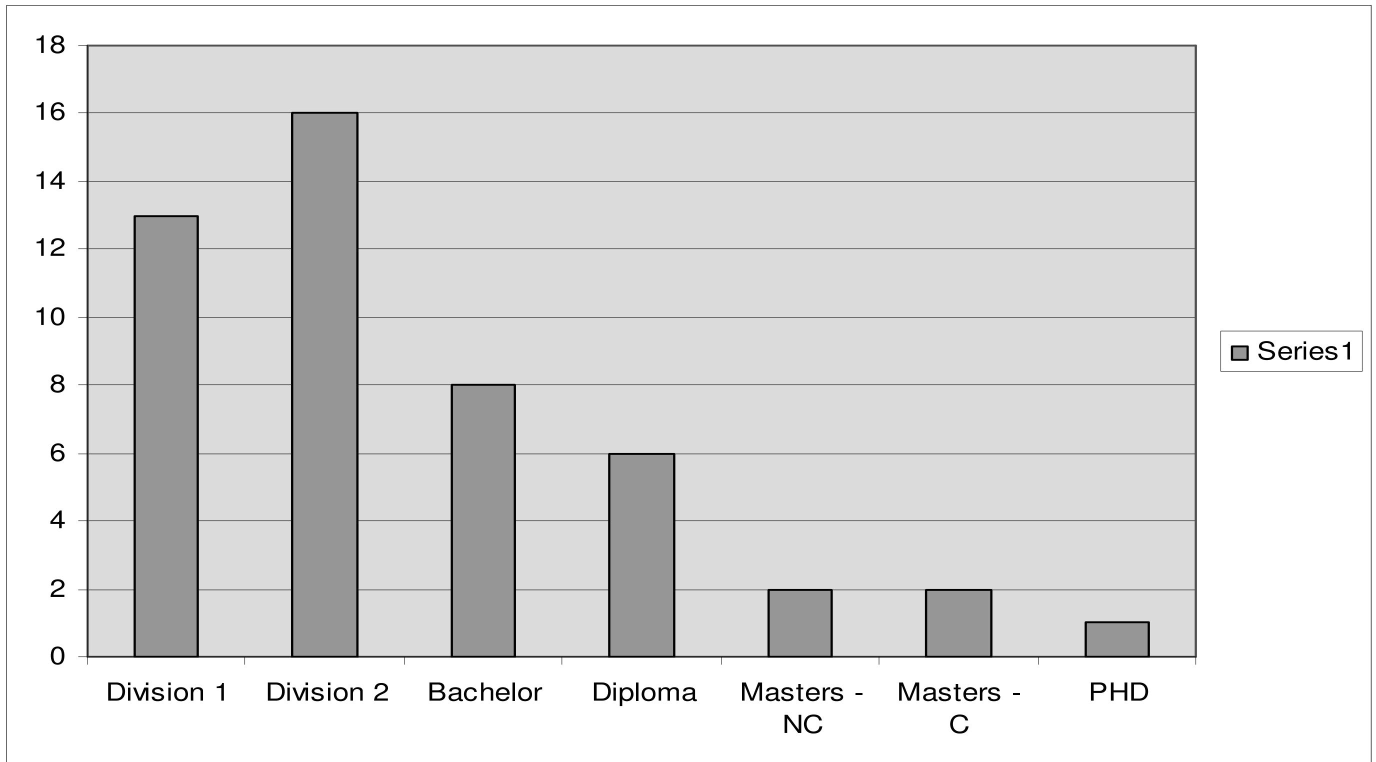


Figure 3 UMHCS Nursing Staff Qualifications

Nurses interested in post graduate studies are required to undertake study by distance education. Currently three nursing staff are undertaking post graduate qualifications, one clinical (Palliative Care) and the other two management qualifications. As noted two UMHCS nursing staff have a clinical Master's qualification. They are approaching retirement age and have expressed that they are not interested in pursuing NP candidature. At present UMHCS has no potential candidates showing interest in progressing a clinically based Masters with the goal of candidature as a NP.

General Practitioners

The UMHCS catchment has a total of 3.5 EFT (Effective Full Time) general practitioners. The Corryong Medical Clinic has 2.5 EFT salaried general practitioners (GP's) and the Walwa Bush Nursing Centre (WBNC) has 1 EFT general practitioner providing services from the Walwa BNC. Up until October 2007, UMHCS sustained

three EFT general practitioners with two GP's tenure of seven years and the other GP 10 years. With the recent departure of one GP we were able to acquire the services of another .5 EFT. Upper Murray is classified as RRMA 5 and compares well (.91 EFT/1000 compared to 1.1 EFT/1000) within the RRAMA 5 classified areas in recent audit of the health workforce in rural Australia (DOHA, 2008). Our GP's maintain a one in three, 24 hours a day 7 days are week on-call roster system and work collaboratively with other health professionals within and outside the agency. Our salaried model has enabled a stable tenure of GP's.

Service Plan Gap Analysis

Part of our project included undertaking a service gap analysis. UMHCS, as a Multi Purpose Service (MPS), represents an integrated, flexible service with the ability to shift resources to meet the needs of the community. As such UMHCS has an obligation to the Commonwealth and Victorian State Governments to meet the needs of our community. We do this be undertaking a rigourous 4- 5 yearly community led evidence based needs assessment which inform our service plans.

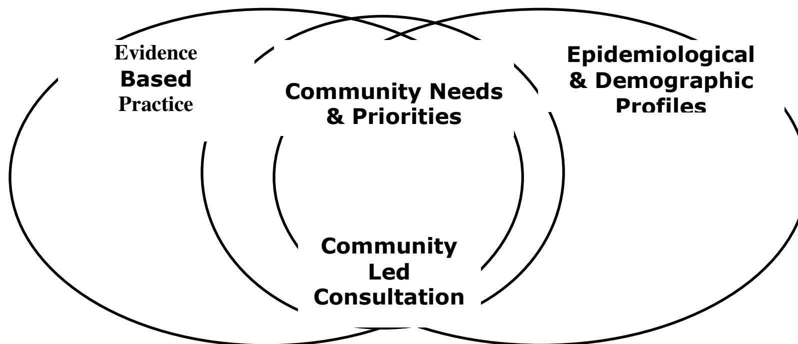


Figure 4 UMHCS Needs Assessment Strategy

Our evidence-based needs assessment involves three converging strategies (Figure 4). Strategy one involves the development of a demographic and epidemiological profile for the catchment population. Strategy two involves the development of evidence-based case studies relating to the priority areas identified through the demographic and

epidemiological profiles, community led consultation and the national priority areas. Strategy three involves the development and implementation of a community led consultation process. A further stage, that is ongoing, involves the continued development of community participation strategies that will facilitate community decision making when finite resources require that one service or program be funded ahead of another or others.

The recommendations from the evidence based needs assessment directly inform our service plans. Service providers continue to monitor and evaluate their service plans which also contain a number of quality indicators. The annual evaluation of service plans is a key corporate performance indicator. Our rigorous service planning program ensures we are informed of any service gaps and challenges. At present our only service gap is the ongoing provision of podiatry services.

Care Coordination

Relevant to the NP project is our processes to support care coordination. Our Continuum of Care Program (CCP) operates across all care settings. It combines a number of service delivery strategies designed to enable positive outcomes for clients.

These are:

- the early identification of service need and care coordination utilising a multi-disciplinary assessment tool;
- a coordinated, multi-disciplinary approach to planning and service delivery.
- a streamlined referral process to a broad range of acute, residential and community services;
- team responsibility for separation outcomes through forward planning; and
  networking and active involvement with the wider community and regional service providers.

Another strategy for supporting our people to get the services and support they need is our Point of Entry Advocacy program. This strategy is based on the principles of advocacy and enabling. Our staff are provided with the skills and information to help people gain greater control over their lives by advocating for the client and family. This is achieved by all staff helping to identify, and facilitate access to relevant services, regardless of where a contact is made with the service, (reception, maintenance, medical clinic, acute hospital etc). This strategy has potential to achieve health gains due to the numerous entry points to our service. UMHCS has opportunity to enable access to appropriate services 24 hours a day, 7 days a week. A summary of our accreditation report states 'all staff at every level of the service are able to clearly enunciate, using a common language, the organisational philosophy, the focus on health promotion, consumer involvement and integrated care. They understand the meaning of multidisciplinary care and are clearly client focused in all areas of service provision' (QICSA, 2000, p.7). These strategies provide a background to any proposed NP models.

SECTION 3

Proposed NP Models

Our project team wanted to explore models that would complement our workforce, support the extended scope of practice, improve health outcomes and benefit the agency and community. After analyzing the workforce and the service gaps, it was decided to pursue the following areas:

- Aged Care
- Emergency Department
- District/Community Nurse
- General Practice Nurse Consultant

Model 1: Nurse Unit Manager (NUM)/Nurse Practitioner

The project team considered expanding the NUM role by expanding the scope of practice emergency department (ED) presentations and residential care patients. The anticipated benefits included: improved clinical leadership in aged care, enhancing our CCP program and reduced waiting time for patients seen in the emergency department. The existing NUM role was already responsible for the efficient and effective delivery of direct services to Acute, Residential Services and the Emergency Department. All Division 1 nurses are First Line Emergency Care (FLEC) accredited and protocols and standing orders are in place to support the expanded scope of practice. The model proposed included some additional personal care hours.

UMHCS averages < 1550 emergency department presentations per year (see Table 8). The low number means the Emergency Department (ED) is not designated or funded as a separate unit department due to the low number of presentations.

Emergency Department Attendance			
2004/05	2005/06	2006/07	2007/08
1478	1429	1526	1412

Table 8 UMHCS Accident & Emergency Attendance

The data from May 2007 to April 2008 was analysed for the project. The average ED attendance was 4 patients per day, with peak time attendance on Saturday and Sunday at the time the general practitioners see non-urgent patients. The age range was between 4 months and 98 years with an average age 43yrs. 84% were Triage 4 and 5 and 85% of patients discharged. (see Table 9) The other 15% were either transferred or admitted.

Triage 1	Triage 2	Triage 3	Triage 4	Triage 5	Total	Admit	Transfer
2	57	179	335	904	1477	173	84
.2%	4%	12%	23%	61.8%		10%	5%

Table 9 Triage Attendance for UMHCS ED (1 May 2007 to 30 April 2008)

General Practitioners attended 87% of presentations regardless of triage. (see Table 10) Nurses were more likely to attend clients in the Triage 3 and 4 categories.

Practitioner	Triage 1	Triage 2	Triage 3	Triage 4	Triage 5
General Practitioner	2 100%	51 90%	125 70%	253 76%	801 88.5%
Nurse	0	6 10%	54 30%	82 24%	103 11.5%
Total	2	57	179	335	904

Table 10 Nurse/GP Emergency Department Attendance (1 May 2007 to 30 April 2008)

Residential aged care data was also collected to analyse the model. The residential care facility provides high and low level care and respite care for frail older people and people with disabilities. There are 34 flexible high and low care beds. The average

resident's length of stay is 153.7 weeks compared to the national average of 146 weeks (Australian Institute of Health & Welfare, 2007).
http://www.aihw.gov.au/mediacentre/2008/mr20080612.cfm

Residents in high care are reviewed by their GP each month. Low care residents are seen as they request or as required. All residents are seen for acute health issues as necessary. The project focused on acute episodes of care where a client is seen by a general practitioner as this was of interest for the proposed model. In a 12 month period the average monthly attendance by a GP, for high care residents was 3.25 per month and 4.5 per month for low care residents, equating to .2 patients per day. (see Figure 5)

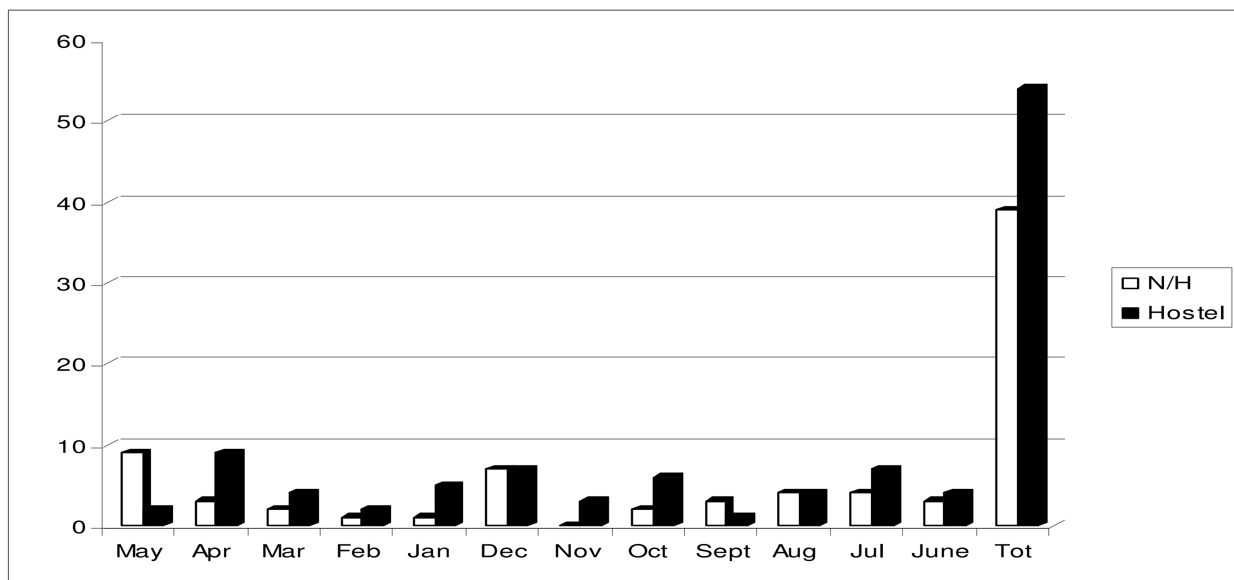


Figure 5 GP Attendance to Aged Care Residents outside routine visits

Model 1: NUM/NP role analysis and recommendation

A business case was prepared for each of the Models (Appendix 1). This was based on a 3 year plan and included the known costs and benefits for a proposed NP in the role. CPI of 9.75% was factored in. Furthermore, a case study (Appendix 2) highlighted the additional cost to the client and or the organisation.

The project team recognised that the existing NUM position already has a high work load, participated in the CCP and worked collaboratively with nursing staff, GPs and other health professionals. As stated all Division 1 registered nurses are FLEC trained and the majority of our Division 2 nurses are medication endorsed. The main issue that made the role unacceptable was the cost to the client or the health service of the NP consultation.The project values provided a framework for further analysing the NUM/NP model (see Table 11).

Value	Assessment
Acceptable to our organization specifically our medical staff, our nursing staff, our clients, our community and the Nurses Board of Victoria (NBV).	The role was unacceptable due the client or the health service's inability to receive a subsidy for the cost of the NP service (Medicare provider and PBS prescriber numbers).
Appropriate: the role will complement existing service plans and contribute to health outcomes.	The role was appropriate as it enhanced and complemented service plans, provided additional support for aged care and the continuing care program.
Functional: the role will be able to function within the specialist scope of practice and compliment existing care.	The role was able to function within the specialist scope of practice however the low volume of ED presentations may cause difficulties maintaining specialist skills.
Sustainable: the role will be cost effective and possible within existing resources.	There was some opportunity for increased GP revenue in the medical clinic due to NUM/NP availability. Overall in the absence of any subsidies the role increased costs both to the agency (salaries & wages/NP candidature/ongoing mentoring and support) and to the community (medications/pathology/radiology)
Additional Cost to UMHCS **Additional cost to the client/UMHCS**	**$12157** **$171.60**

Table 11 NUM/NP role analysis

The model was considered to be appropriate and functional however it was not acceptable or sustainable due to the burden of cost to the client or the organisation. The Project Team recommended not to progress with this model.

Model 2: Aged Care Community Nurse (ACCN)/Nurse Practitioner

The Project Team's second option was to consider and investigate the possibility for an Aged Care/Community Nurse NP (ACCN/NP). Our demographic profile highlighted our current and future ageing population with more than 50% of the population aged 45 or older. The ACCN/NP role had the potential to meet future service gaps and complement our CCP program.

Currently our District Nurses (1.2 EFT) provide community nursing and coordinate a range of home based care services including palliative care and the HACC program. The HACC Program involves the coordination, reporting and management of 6.5 EFT HACC staff and the assessment of clients for personal care, respite, home help, home maintenance, gardening services, social support and meals on wheels. The District Nurses also coordinate the palliative care program by coordinating the individual and family's social, emotional, spiritual and physical needs. Clients seen by the current district nurse model are charged a minimal fee, this was considered to be accepted by the community.

The project team recommended that an Aged Care Community Nurse (ACCN/NP) also include residential care providing aged care clinical leadership in this area. The ACCN/ NP would work collaboratively with GP's to compliment our multidisplinary care team and provide an aged care leadership role.

Data was collected to evaluate the number of clients seen over a period of ten years (see Table 13). It was noted that there was a 32% decrease in occasions of service

Year	Occasion of Service
2007/08	1247
2006/07	1555
2005/06	1241
2004/05	1275
2003/04	1092
2002/03	1196
2001/02	1248
2000/01	1119
1999/00	1507
1998/99	1342
1997/98	1828

Table 12 District Nurse Occasion of Service (1997 - 2008)

since 1997. This reduction is likely to have occurred due to the introduction of General Practice Nurse Consultants (currently 1.2 EFT) in 1998. Patients often elect to be seen by the General Practice Nurse Consultant as there is no charge (recognized by MBS) and they can see their GP on the same day. In contrast (see Figure 7), the General Practice Nurse Consultant client base has increased over the same period of time.

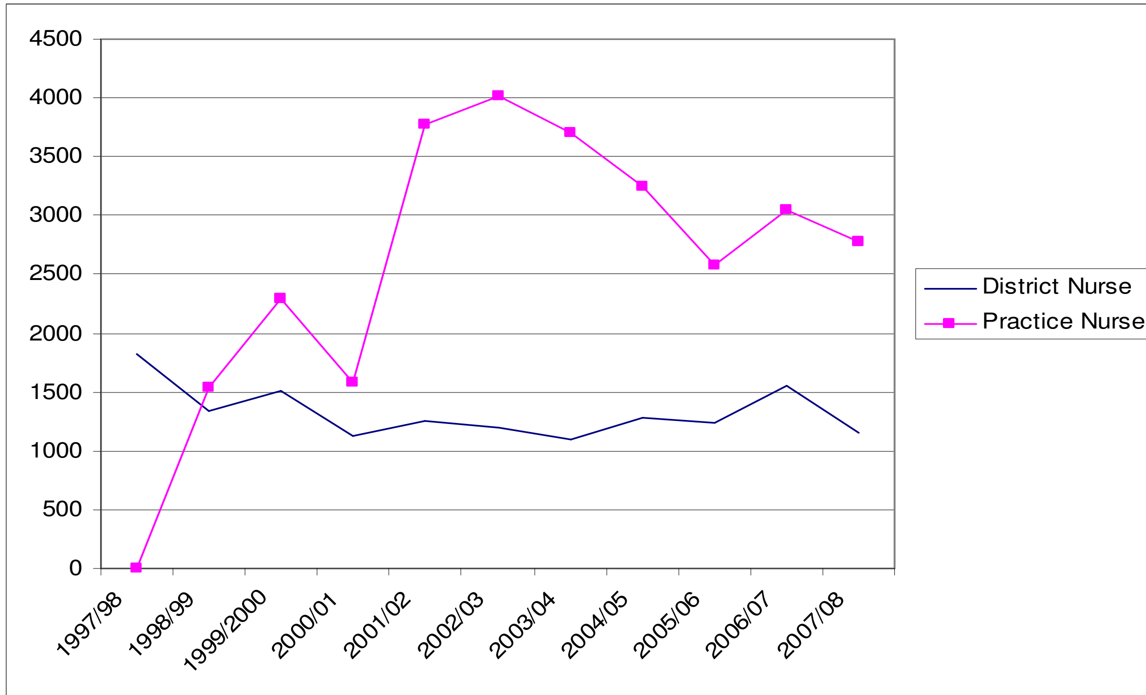


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Figure 7 General Practice Nurse Consultant & District Nurse Comparison (1 July 1997 to 30 June 2008)

The District Nurse occasions of service for 2007/08 were 1247 with a daily hourly average of 4.2 clients. It was clearly identified that 90% of clients seen by the District Nurse were over the age of 65. (see Table 14)

Age	65+	41-65	21-40	10-20
Number	1124	49	12	62
%	(90%)	(4%)	(1%)	(5%)

Table 13 Age of clients seen by District Nurse

A time and motion study was undertaken over a two week period to capture the role and tasks undertaken by the district nurse. It was noted that such a short time frame may not truly represent the role however it would provide the project with some understanding of the role. During the period of study (see Figure 6), administrative functions such as HACC coordination, attendance at meetings and DN administrative tasks accounted for 62% of the role. Direct client care accounted for only 27% of the role.

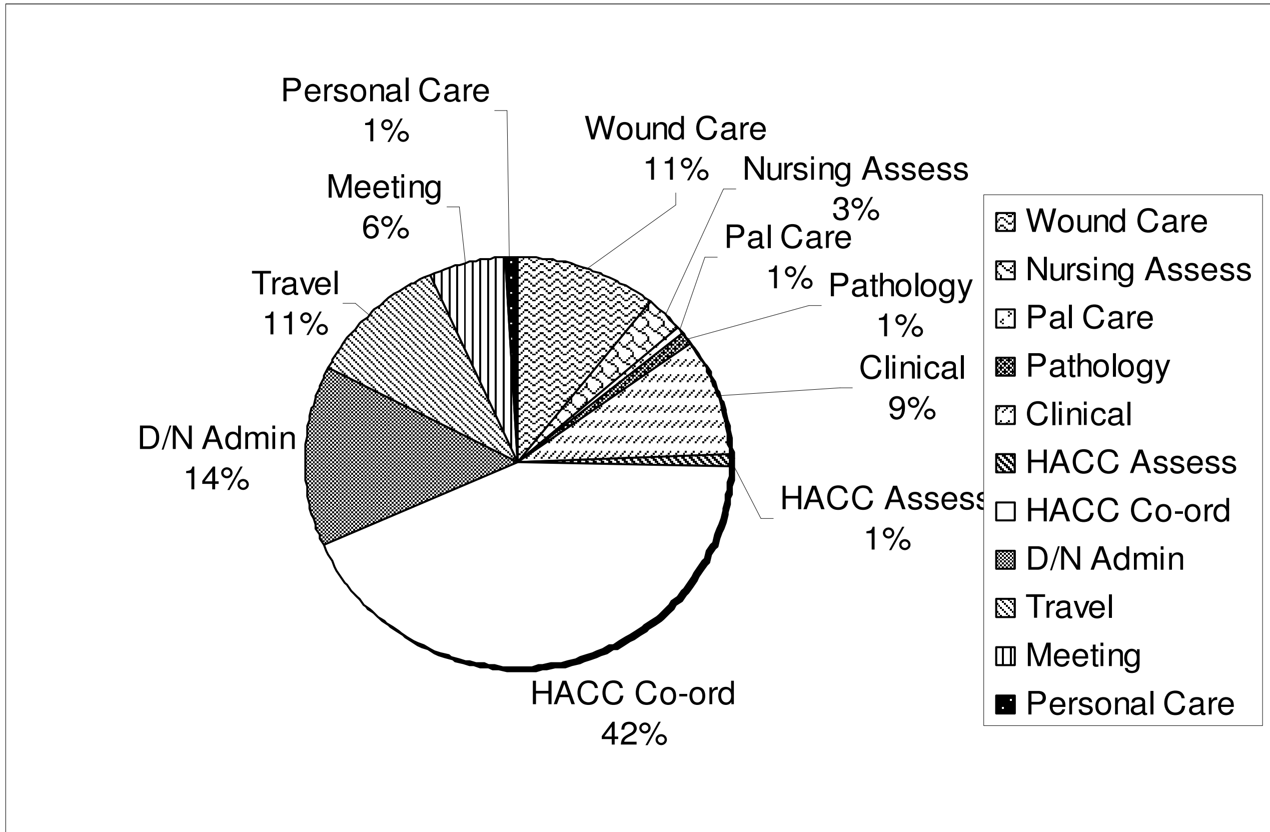

Figure 6 District Nurse Activities over a 2 week period in August 2008

Model 2: ACCN/NP role analysis and recommendation

A business was undertaken on the proposed ACCN/NP model (Appendix 3). The current District Nurse model which includes the HACC co-ordination role was acknowledged as a good model of care complimenting our existing workforce. The District Nurse is able to assess a client as soon as any changes occur often avoiding a crises or need for hospitalization. They also work collaboratively with the GP's and other health professionals in the agency ensuring enhanced care, improved client out comes with involvement of continue of care. The project values provided a framework for further analysing the ACCN/NP model (See Table 15).

Value	Assessment
Acceptable to our organization specifically our medical staff, our nursing staff, our clients, our community and the Nurses Board of Victoria (NBV).	The role was unacceptable due the client or the health service's inability to receive a subsidy for the cost of the NP service (Medicare provider and PBS prescriber numbers).
Appropriate: the role will complement existing service plans and contribute to health outcomes.	The role was appropriate however it would mean a restructure of the current service model.
Functional: the role will be able to function within the specialist scope of practice and compliment existing care.	The role would be able to function within the specialist scope of practice however, the low volume of clients may cause difficulties maintaining specialist skills.
Sustainable: the role will be cost effective and possible within existing resources.	As per Model 1
Additional Cost to UMHCS	**$8799**

Table 14 ACCN/NP role analysis

Similar to Model 1, the issue of cost to the community was seen as a major impediment to implementing this model. As stated in our introduction, the community is assessed as having a low economic base and socioeconomially disadvantaged. Bulk billing is highly valued by the community and any additional health costs would be a significant burden. Furthermore, a NP in this role would be unable to practice confidently within the expanded scope of practice due to the low numbers of clients. This project team did not recommend the model for a service plan.

Model 3. General Practice Nurse Consultant (GPNC)/Nurse Practitioner

Based on the information provided on the ACCN/NP model, the project team recommended we analyse a GPNC/NP to compliment our existing general practice workforce. The General Practice Nurse Consultant Position (1.2 EFT) was created in 1998, and soon became a very established role working collaboratively with the GP's. The General Practice Nurse Consultant is credentialed in women's health and immunization.

Data analysed and examined over a ten year period indicated the General Practice Nurse Consultant occasion of service had doubled since their commencement, and

Year	Occasion of Service
2007/08	3138
2006/07	3049
2005/06	2577
2004/05	3253
2003/04	3702
2002/03	4014
2001/02	3775
2000/01	1575
1999/00	2287
1998/99	1545
1997/98	0

Table 15 General Practice Nurse Consultant Occasion of Service (1997 - 2008)

stabilised over past couple of years (see Table 16). The total number of patients seen over the 2007/08 year equated to 12.55 patients seen on a daily basis. It is also recognised that the services attract a Medicare subsidy for immunisations, wound care and pap smear. Unlike the District Nurses, the age of clients was distributed across the

life span with only 38% (compared to 65% for District Nurses) of clients aged 65 years or more. The age group reflected their role and function. (Table 16)

Age	65+	41-65	21-40	10-20	-10
Numbers	1036	710	407	261	310
%	38%	26%	15%	10%	11%

Table 16 General Practice Nurse Consultant Age Group Attendance

Similar to the Community Nurse the project team wanted to examine the General Practice Nurse Consultant daily activities over a fortnight. It was noted that such a short time frame may not truly represent the role however it would provide the project with some understanding of the role (see Figure 8)

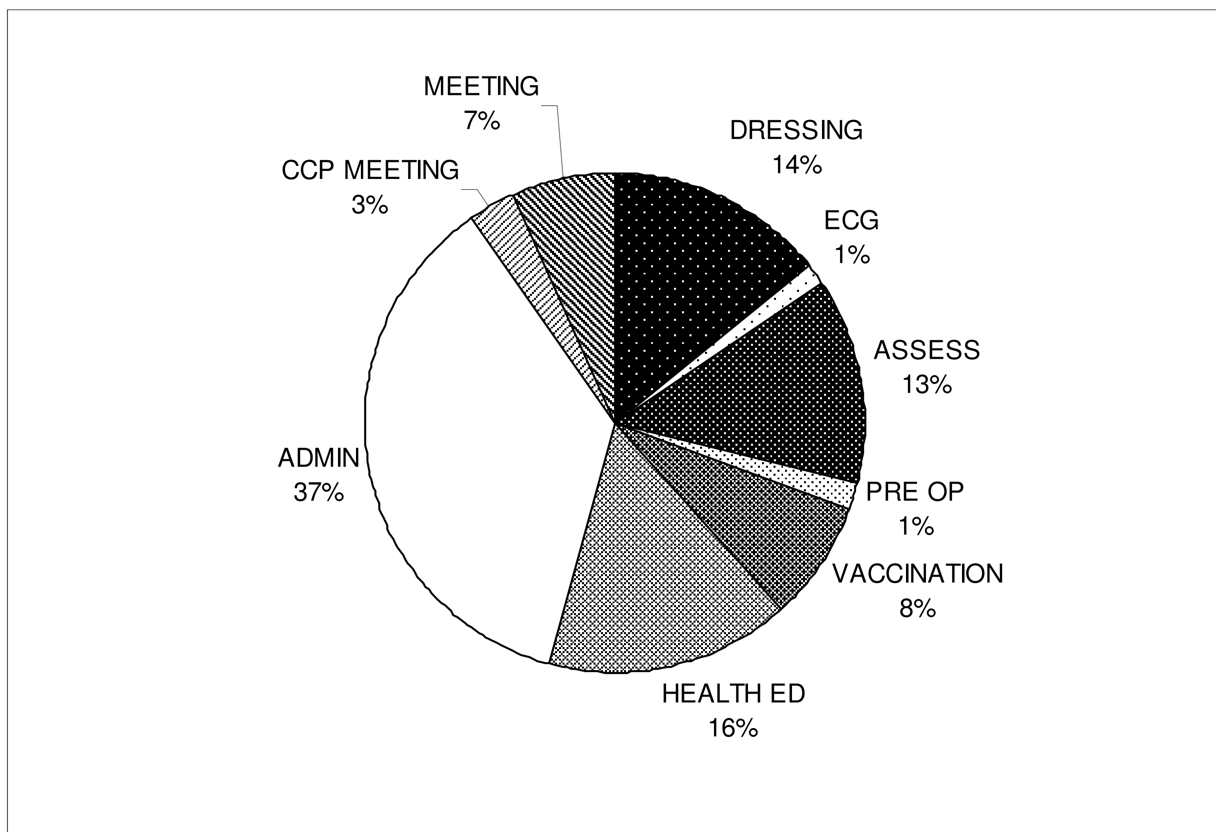

Figure 8 General Practice Nurse Consultant Activities

Administrative functions accounted for 47% of the role however direct client care accounted for 64%. (see Figure 8).

Model 3: PN/NP role analysis and recommendation

A cost benefit analysis was undertaken on the proposed PN/NP model (Appendix 4). The existing General Practice Nurse Consultant is already a well established, sustainable, functional and acceptable role within the community and agency. They are credentialed in women's health and immunization is recognised by the MBS for the delivery of service of pap smears, immunisation and wound care under the collaborative care of the GP's. Similar to Model 1 and 2 the project values provided a framework for further analysing the ACCN/NP model.

Value	Assessment
Acceptable to our organization specifically our medical staff, our nursing staff, our clients, our community and the Nurses Board of Victoria (NBV).	The role was unacceptable as there was little benefit in a NP with the specialist roles already attracting a Medicare subsidy.
Appropriate: the role will complement existing service plans and contribute to health outcomes.	The role was appropriate and complemented existing service plans however there was little benefit with each nurse credentialed to provide specialist services.
Functional: the role will be able to function within the specialist scope of practice and compliment existing care.	The roles already function within a specialist scope of practice
Sustainable: the role will be cost effective and possible within existing resources.	As per Model 1
Additional Cost to UMHCS	**$39'798**

Table 17 PN/NP role analysis

The model was again unacceptable due to the costs incurred by the client and the organization. The project team did not recommend the model be progressed into a service plan.

The project demonstrated the need for the General Practice Nurse Consultant to take a significant role and assist GPs with the new MBS clinical care plans and health Assessments. Care Plans and Health Assessments are designed to address care needs and assist and improve patient outcomes for better health. Care plans also allow better access to allied health providers. These activities and functions can be achieved without NP requirements. The data informed a change in structure within the medical clinic with the appointment of an administratively based Practice Manager. This will enable the General Practice Nurse Consultant to focus on clinical care rather than the high level of administrative functions they are currently undertaking.

PROJECT CONCLUSION

Three potential models were identified. The first model involved expanding the scope of the Nursing Unit Manager role in the acute and residential care setting, with a focus on emergency and aged care. The second model looked at extending the role of the community nurse with a focus on both community and residential aged care. The third model looked at extending the General Practice Nurse Consultant role to a NP role, with a focus on women's health, immunization and health promotion. Each model was assessed as appropriate having the potential to complement existing service plans and enhance our continuing care program. Without doubt, the burden of cost either to the client and or the community made each of the models unacceptable and unsustainable.

The team recognized the inability for the patient or the health service to receive subsidies for the costs of a NP consultation. The consumers on the team strongly objected to any cost shifting either to the client or the health service. Furthermore, the team also objected to any proposal that would put a practitioner at legal risk (eg pre - signing of diagnostic services). The team recognized the value of a NP in settings, such

as large facilities where the costs were able to be absorbed by the service, or where the role had designated funding.

The burden of cost to the client or the community is an issue for all small rural communities. Current legislation places the benefits of the NP at risk. Our team concluded that a NP role was beyond our current agency and community resources. This is not to say that we would not reconsider the options should an eager and enthusiastic nurse present express interest or NP's were approved access to a Medicare provider and PBS prescriber numbers.

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Glossary

ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
AIRA	Accessibility/Remoteness Index of Australia
CHA	Consumer Health Advocate
CLG	Corryong Liaison Group
DMS	Director of Medical Services
FWE	Full-time Work Equivalent
GP	General Practitioner
MBS	Medicare Benefit Scheme
MPS	Multi Purpose services
NP	Nurse Practitioner
PBS	Pharmaceutical Benefit Scheme
SEIFA	Socio-Economic Indexes for Areas
UMHCS	Upper Murray Health Community Services

Appendix 1

NUM/NP BUSINESS CASE

Description	2009/10	2011	Current NUM	Differentials
Computer Equipment	3000			
Computer Upgrade		1500	1500	
Professional Fees	1200	1020		1020
Travel Accommodation	1200	1000	300	700
Travel Expenses	1200	620	300	320
Course Material	1200			
Salary & Wages – NP - PCA Backup	7280	101073 3355	89896	14532
COST TOTAL	**15080**	**108568**	**91996**	**16572**
Scholarships Residential Aged Care NBV	 20000 3000			
Care Plans (in association with GP)		11115		11115
REVENUE TOTAL	**23000**	**11115**	**0**	**(11115)**
Loss of revenue to clinic income (GP) Care Plans 25% Xrays order Increase revenue 4 patients p/h x 2hrs x 10 months @$35.99 = $2880		6802 2778 225 9580 (2880) 6700		6802 2778 225
Differential	**7920**	**104153**	**91996**	**12157**

Appendix 2

CASE STUDY

An elderly client (pensioner) presents to Emergency Department with a Chest infection and is seen by Nurse Practitioner on a Monday morning at 10.00am. NP orders Chest Xray, blood tests and prescribes antibiotics. Cost to client or organisation (bulk billed rate) is as follows:

Description	GP Cost (current model)	Cost to client or Organisation
Consultation (Item 36)	Bulk billed	62.30
Consultation (item 10991)	Bulk billed	8.20
Chest Xray (item 58503)	Bulk billed	40.10
Pathology Testing	Bulk billed	50.00
Prescription	5.00	16.00
Cost to Client/organisation	5.00	176.60

Appendix 3

ACCN/NP BUSINESS CASE

Description	2009/10	NP Model in 2011	Current DN in 2011	Differentials
Computer Equipment	3000			
Computer Upgrade		1500	1500	
Wireless Internet		1020		1020
Phone		360	360	
Professional Fees	1200	1000		1000
Car – Lease		10000	10000	
Car – fuel		5000	5000	
Travel – Accommodation	1200	620		620
Travel Expenses	1200	620		620
Course Material	1200			
Salary & Wages – NP - HACC Co-coordinator - Current District Nurse	7280	101073 19604 120677	 119112	 1565
Cost Total	**15080**	**140797**	**136992**	**4825**
District Nurse – client based		13170	13170	
Scholarships –Residential Aged Care - NBV	20000 3000			
Care Plans (in association with GP's)		$14746		
Revenue Total	**23000**	**27916**	**13710**	**(14206)**
Loss of revenue to clinic income (GP) (25% Care Plan) Xrays ordered Increase revenue 4 patients p/h x 2hrs x 10 months @$35.99 = $2880		18169 3686 225 22080 (2880) 19200		18169 3686 250
Differential	**7920**	**132081**	**123282**	**8799**

Appendix 4

PN/NP BUSINESS CASE

Description	2009/10	2011	Current Practice Nurse	Differentials
Computer Equipment	3000			
Computer Upgrade		1500	1500	
Professional Fees	1200	1020		1020
Travel Accommodation	1200	1000		1000
Travel Expenses	1200	620	500	120
Course Material	1200			
Salary & Wages – Nurse Practitioner - Administration Support	7280	101073 15600 116673	79015	37658
Cost Total	**15080**	**120813**	**81015**	**39798**
Practice Nurse – client based (MBS) - Gov Funding (PIP)		14000 19000	14000 19000	
Scholarships - Residential Aged Care - NBV	20000 3000			
Care Plans (in association with GP)		23788	23788	
Revenue Total	**23000**	**56788**	**56788**	**0**
Differential	**(7920)**	**64025**	**24227**	**39798**