DEPARTMENT OF HEALTH AND AGEING

Evaluation of the Mental Health Nurse Incentive Program

Final Report

24 December 2012

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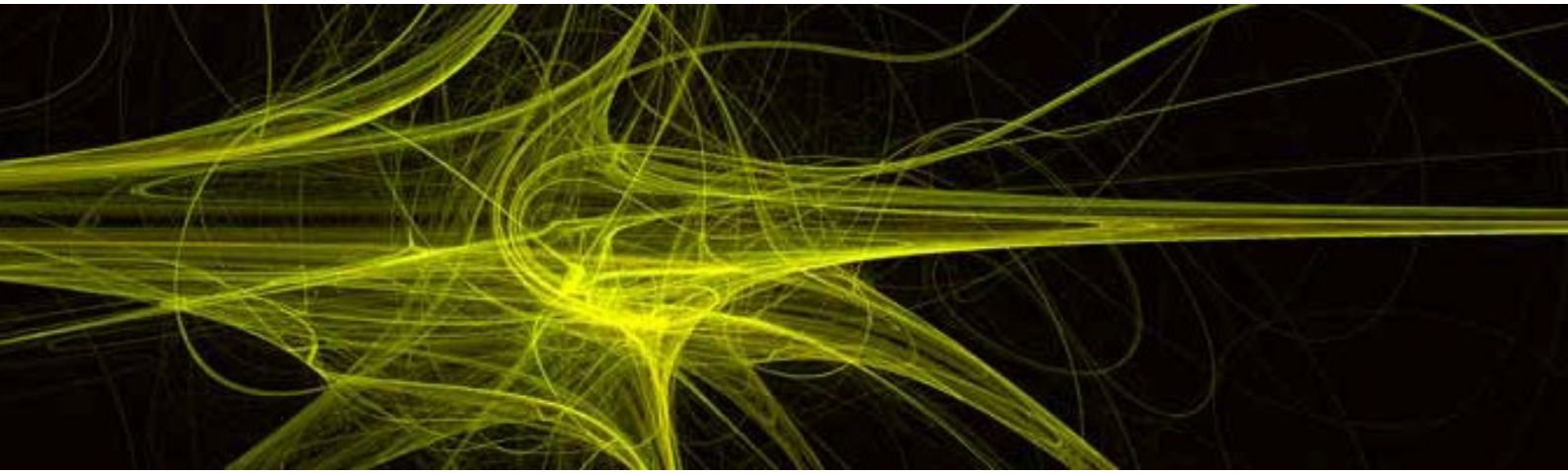

Our Vision:

To positively impact people's lives by helping create better health services.

Our Mission:

To use our management consulting skills to provide expert advice and support to health funders, service providers and users.

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Abbreviations

ABS	Australian Bureau of Statistics
AHMAC	Australian Health Ministers' Advisory Council
ACMHN	Australian College of Mental Health Nurses
AMHOCN	Australian Mental Health Outcomes and Classification Network
ATAPS	Access To Allied Psychological Services
BOiMHC	Better Outcomes in Mental Health Care
COAG	Council of Australian Government
D2DL	Day to Day Living Program
DoHA	Department of Health and Ageing
DHS	Department of Human Services
FaHCSIA	Department of Families, Housing Community Services and Indigenous Affairs
GP	General Practitioner
HMA	Healthcare Management Advisors
HoNOS	Health of the Nation Outcomes Scales
MBS	Medicare Benefits Schedule
MH-CASC	Mental Health Classification and Service Costs
MHI	Mental Health Inventory
MHN	Mental health nurse
MHNIP	Mental Health Nurse Incentive Program
MH-NOCC	Mental Health National Outcomes and Casemix Collection
MIKE2.0	Method for an Integrated Knowledge Environment version 2.0
MHSRRA	Mental Health Services in Rural and Remote Access Program
NACMH	National Advisory Council on Mental Health
NMHP	National Mental Health Plan
PHaMs	Personal Helpers and Mentors program

Glossary

Credentialed mental health nurse	A credentialed mental health nurse has achieved the professional standard for practice in mental health nursing, which is administered through the Australian College of Mental Health Nurses. Specific requirements are: • hold a current licence to practice as a registered nurse within Australia; • hold a recognised specialist / post graduate mental health nursing qualification (as specified in the guidelines for applications); • have had at least 12 months experience since completing specialist / postgraduate qualification OR have three years experience as a registered nurse working in mental health; • have been practicing within the last three years; • have acquired minimum continuing professional development points for education and practice; • be supported by two professional referees; and • have completed a professional declaration agreeing to uphold the standards of the profession.
Eligible organisation	Participation in MHNIP is only open to eligible organisations, which must be community based and have a GP or a psychiatrist with a Medicare provider number. Eligible organisations include: • general practices; • private psychiatry practices; • Aboriginal and Torres Strait Islander Primary Health; and • Medicare Locals / Divisions of General Practice.
HoNOS	Health of the Nation Outcomes Scales (HoNOS) is a tool to measure the health and social functioning of people with severe mental illness. It was developed by the Royal College of Psychiatrists in the United Kingdom. As a part of the eligibility requirements for MHNIP, mental health nurses must be trained in the use of HoNOS.
Medical practitioner	Medical practitioner includes general practitioners and psychiatrists.
Service	A service represents treatment provided by a mental health nurse to a MHNIP patient. It can be provided in a range of settings, such as in clinics or at a patient's home and also by telephone. Services include clinical nursing services and coordination of clinical services for patients with a severe and persistent mental disorder.
Session	A session represents 3.5 hours and is the basis for claiming the MHNIP sessional rate. A fulltime mental health nurse works 10 sessions per week, with an expectation of having an average nurse caseload of at least two individual services to patients with a severe and persistent mental disorder per session.

Executive Summary

Background to the Evaluation

Healthcare Management Advisors (HMA) was engaged by the Department of Health and Ageing (DoHA) to undertake an evaluation of the Mental Health Nurse Incentive Program (MHNIP). Initiated in July 2007, MHNIP provides payments to community based general practices, private psychiatric practices and Aboriginal Medical Services (AMS) to engage mental health nurses to:

> *……assist in the provision of coordinated clinical care for people with severe mental health disorders.*
>
> *Mental health nurses work in collaboration with psychiatrists and general practitioners to provide services such as monitoring a patient's mental state, medication management and improving links to other health professionals and clinical service providers. These services are provided in a range of settings, such as clinics or patient's homes and are provided at little or no cost to the patient.*[1]

Evaluation Scope

The purpose of the evaluation was to:

> *"assess the effectiveness and appropriateness of the program and its current operational parameters as well as model future demand and growth patterns. Specifically, the scope of the evaluation will address patient outcomes, program uptake, program demand, cost benefits, program structure and compliance".*[2]

HMA undertook the following steps for the project.:

- Prepared a situation analysis;
- Developed an evaluation framework;
- Modelled demand;
- Conducted provider surveys;
- Conducted 18 case studies; and
- Undertook a cost analysis.

This process was guided by the underlying program logic for MHNIP:

- **Policy context:** MHNIP was announced in July 2006 as part of the Council of Australian Government's National Action Plan on Mental Health;
- **Program objectives**: the aims of MHNIP are to:
  - Improve levels of care for people with severe and persistent mental disorders;
  - Reduce the likelihood of unnecessary hospital admissions and readmissions;
  - Assist in keeping people with severe disorders feeling well and connected within the community; and
  - Alleviate pressure on privately practicing psychiatrists and GPs.
- **Program scope:** the key program design features of MHNIP, including the financial, operation and service delivery characteristics are;
  - MHNIP is delivered by community based primary and private specialist health services, including GPs, private psychiatrists and Aboriginal Medical Services (AMSs) funded by the Office of Aboriginal and Torres Strait Islander Health;

  - Eligible organisations receive an establishment grant and payments for sessions of care provided to patients within the program target group;
- **Program requirements:** the requirements for eligible organisations to implement MHNIP, include
  - Development of patient management protocols;
  - Recruitment of a mental health nurse credentialed with the Australian College of Mental Health Nurses (ACMHN); and
  - Reimbursement via submission of claim forms to the Department of Human Services (DHS);
- **Implementation and service delivery:** the journey for patients receiving support under the program includes: assessing patient eligibility, development of a mental health plan, and implementation of the treatment and support plan;
- **Outcomes:** the expected overall outcome as a result of the intervention is increased health and wellbeing of people with severe and persistent mental illness.

This paper, the final evaluation report, assesses the program's impacts using the information collected through the evaluation process. The report makes 20 *key findings*, summarised below. There are a further 34 *detailed findings* that relate to the mechanics of the program operations presented in the body of the report.

Summary of Findings: Appropriateness

The key findings of the evaluation of MHNIP in relation to appropriateness are summarised below.

Key Finding 1: there is a sizeable group of people in the community with severe and persistent mental illness. Expert advice suggests this is in the order of 1.2% of the adult population aged 18 to 64 years. It is estimated that a little under half of this group is the size of the MHNIP target population - 0.6% of the adult population with severe and persistent mental illness primarily reliant on assistance from GPs and psychiatrists in the private sector.

Key Finding 2: the target group will always be bigger than realised demand under MHNIP eg some people will have exited the program because their condition has stabilised. Allowing for this, there is evidence demand exceeds the services currently available under MHNIP – an estimated 49,800 people in 2011-12.

Key Finding 3: there is a high level of support from medical practitioners for the model of care embedded in MHNIP whereby mental health nurses, working in conjunction with GPs and psychiatrists, provide treatment and support to people with severe and persistent mental illness living in the community.

Key finding 4: patients, carers and relevant peak bodies were also supportive of the model of care underlying MHNIP.

Key finding 5: *General Practices* and *Medicare Locals (formerly Divisions of General Practice)* accounted for the largest proportion of MHNIP services delivered (80.9%) and mental health nurses employed (76.4%) between 1 July 2009 and 30 June 2011

Key finding 6: there was evidence that medical practitioners are triaging patients to different Commonwealth funded programs supporting people with mental illness, based on clinical need. This included utilising MHNIP for patients with severe and persistent mental illness, and referral of patients with lower levels of disability to support from other appropriate services.

Key finding 7: until the application of session caps in May 2012, realised demand under MHNIP was driven by supply-side factors –the number of eligible providers and credentialed nurses. These program design features were not sustainable in a period of budget restraint.

Key finding 8: access to MHNIP services varies by jurisdiction. The supply-side driven design characteristics of MHNIP meant that service growth was not always linked to geographic areas where there was higher relative need for new services.

Summary of Findings: Effectiveness

The key findings of the evaluation of MHNIP in relation to effectiveness are summarised below.

Key Finding 9: patients being supported under MHNIP are benefitting from improved levels of care in the form of greater continuity of care, greater follow-up, timely access to support, and increased compliance with treatment plans.

Key Finding 10: examination of a sample of MHNIP patients in the evaluation cost analysis showed a downward trend in their HoNOS scores, a measure of mental health and social functioning. This statistically validates qualitative perceptions that the treatment and support provided by mental health nurses improves the mental health and wellbeing of patients receiving support under the program.

Key Finding 11: based on an examination of a sample of MHNIP patients, the HoNOS score of patients using state and territory mental health services were on average at similar levels to the scores of MHNIP patients, affirming that the program is providing support to people with severe mental illness.

Key Finding 12: quantitative evaluation evidence showed overall mental health hospital admissions decreased by 13.3% for a sample of MHNIP patients in the 12 months following their involvement in the program. This was not true for all conditions: bipolar disorders showed a slight increase in the number of admissions.

Key Finding 13: for the same sample of patients, when they were admitted to hospital following their engagement in MHNIP, there was on average a reduction in their total number of admission days by 58% and the average length of stay fell from 37.2 days to 17.7 days.

Key Finding 14: there was some evidence of increased patient employment by MHNIP patients.

Key Finding 15: MHNIP has encouraged and facilitated patient's increased involvement in social and educational activities.

Key Finding 16: MHNIP has had positive flow on benefits to some carers of MHNIP patients.

Key Finding 17: MHNIP has had other positive impacts on patients, including improved family interactions and reductions in the number of emergency department presentations.

Key Finding 18:MHNIP has had a positive impact on medical practitioner workloads by increasing their time available to treat other patients and improve patient throughput.

Summary of Findings: Efficiency

The key findings of the evaluation of MHNIP in relation to efficiency are summarised below.

Key Finding 19: based on the de-identified patient data provided by case study organisations (N= 267 patients), the cost analysis suggests that savings on hospital admissions attributable to MHNIP could on average be around $2,600 per patient per annum. This was roughly equivalent to the average direct subsidy levels of providing MHNIP, which ranged from an average of $2,674 for patients in metropolitan areas to $3,343 in non-metropolitan areas.

Key Finding 20: there are a large number of uncosted and intangible benefits associated with MHNIP including the impacts of improved patient outcomes, enhanced relationships with carers and family members, and the effects on carer social security outlays. Examination of these impacts would require an extensive enhancement to existing data collection processes. The evaluation findings suggest a comprehensive economic analysis would find these benefits to be positive.

Overall Evaluation Findings

Based on the commentary provided in the evaluation assessment we provide the following overview of our evaluation findings:

(1) **Appropriateness:** MHNIP is providing support to a sizeable group in the community – people with severe and persistent mental health illness who are primarily reliant for their treatment on GPs and psychiatrists in the private sector (around 0.6% of the adult population). There are still large levels of unmet need from this group. The model of care involving clinical treatment and support provided by credentialed mental health nurses working with eligible medical practitioners received strong endorsement. This came from patients, carers and medical practitioners using the program, along with relevant peak bodies.

(2) **Effectiveness:** the evaluation found that patients receiving treatment and support under the program benefitted from improved levels of care due to greater continuity of care, greater follow-up, timely access to support, and increased compliance with treatment plans. This was evidence of an overall reduction in average hospital admission rates while patients were being cared for, and reduced hospital lengths of stay where admissions did occur. There was also evidence that patients supported by MHNIP had increased levels of employment, at least in a voluntary capacity, and improved family and community connections. MHNIP has had a positive impact on medical practitioner workloads by increasing their time available to treat other patients and improve patient throughput.

(3) **Efficiency:** based on the de-identified patient data provided by case study organisations (N= 267 patients), the cost analysis suggests that savings on hospital admissions attributable to MHNIP were on average around $2,600 per patient per annum. This was roughly equivalent to the average direct subsidy levels of providing MHNIP, which ranged from an average of $2,674 for patients in metropolitan areas to $3,343 in non-metropolitan areas. There are a large number of uncosted and intangible benefits associated with MHNIP, including the impacts of improved patient outcomes, enhanced relationships with carers and family members, and the effects on carer social security outlays. Examination of these impacts would require an extensive enhancement to existing data collection processes. The evaluation findings suggest a comprehensive economic analysis would find these benefits to be positive.

Although the model of care underpinning MHNIP is well regarded and has positive outcomes, other design features of the program could be re-examined. This is particularly true of the current purchasing arrangements. These provide limited capacity to manage demand in line with program resource allocations and do not enable growth to be targeted at geographic areas of greatest need.

Possible ways forward

Observations on possible areas for enhancement of MHNIP are provided in Table E.1.

Table E.1: MHNIP Design Features – Commentary and Options to Address Program Design Issues

Program Design Characteristic	Current MHNIP Design Feature	Observations Based on Evaluation Findings	Possible Options for Consideration, Based on the Evaluation Findings
Model of care	• Target group: people in the community with a severe *and* persistent mental illness. • Credentialed mental health nurses work closely with GPs and psychiatrists to provide coordinated clinical services. It should be noted that GPs and Psychiatrists are the primary care givers. • The *Program Guidelines* outline functions that mental health nurses should undertake. • There is no cap on the number of sessions a nurse has with a patient • A nurse can be engaged to provide between one and ten sessions per week, per organisation, with an average nurse caseload of at least two individual services to patients per session.	• Medical practitioners, patients and carers have provided positive feedback that the program is meeting its objectives in keeping people with severe and persistent mental illness well. **See Section 4.4.1, Key Findings 3 and 4** • A common patient pathway to access MHNIP services exists, however variations have been found, including triaging processes **See Sections 5.4.1, 4.4.2, Detailed Findings 3 and 14**	• The *Program Guidelines* could be further revised to clarify roles and responsibilities of eligible organisations and mental health nurses, particularly in relation to responsibilities in managing the triage process, services provided and clinical governance
Program Participation	• Eligible (ie registered) organisations, comprising self-selected: o Private primary care services – general practices and private psychiatry practices o Medicare Locals o Divisions of General Practices o Aboriginal and Torres Strait Islander Primary Health Care Services funded by the Australian Government through the Office for Aboriginal and Torres Strait Islander Health (OATSIH).	• There are varying degrees of program uptake across organisation types with GPs providing most MHNIP services and only a small number of Aboriginal and Torres Strait Islander Primary Health Services taking up the program. This self-selected, demand driven approach has resulted in inequitable service delivery (See **Demand Management** below) **See Section 4.4.2, 4.6 and Key Findings 5 and 8**	• Investigation into the causes of unmet demand would assist in determining the reasons for service inequity. Some factors to consider include socioeconomic trends in each geographic area, patient drivers and Commonwealth and state and territory services that are available for people with severe and persistent mental illness in areas of perceived unmet demand.
Funder	• DoHA	• N/A	• N/A

Purchaser	• DoHA is the funder and purchaser (based on retrospective payment of claims in arrears). • Purchasing intelligence: DHS reports.	• There is therefore limited control over program expenditure levels (other than the current cap on sessions). • There is currently no mechanism to ensure equitable access to MHNIP services across geographies. • Based on derived figures of population with severe and persistent mental illness, there is evidence that demand exceeds services currently available (See also Detailed Finding 8). • As program is demand driven, supply side factors such as availability of nurses and perceived need by medical practitioners determine where services are provided. Due to this reason, service growth is not always linked to geographic areas where there was higher need for new services. **See sections 4.4.5, 4.5, 4.6 and 6.3 and Key Findings 7 and 8**	• Consider ways to ensure any new service provision is targeted to regions of unmet demand rather than being driven by supply side factors. • Ensure eligibility criteria on entrance and exit are clearly understood and complied with. • Facilitate more formalised patient pathways between MHNIP and other appropriate services. • Consider ways to manage program and regional expenditure levels.
Demand management	• Nil, until application of the session cap in May 2012. Prior to this activity levels were driven by supply side factors: o number of eligible providers; and o number and availability of credentialed nurses.		
Planning			
Practice level	• Triaging at the practice level.	• Most medical practitioners from the evaluation were quite well informed of the types of mental health services that are available for their patients when deciding which Commonwealth Government mental health service program to refer their patients to. **See Section 4.4.4 and Key Finding 6 and Detailed Finding 6** • Level of acuity for patient entry into the program appears to vary. **See sections 4.4.4, 5.4.2, 5.5 and 5.10.1 and Detailed Findings 15, 25 and 26.**	• Clinical governance processes at a regional level could be developed to promote greater uniformity in the level of acuity of patients entering and exiting MHNIP. Processes may need to be varied in accordance with access to other support for people with severe and persistent mental illness in the area (eg access to public mental health services varies by geographic region).

Other levels (regional; national)	• While nurse engagement and patient management is typically managed at the practice level, some eligible Medicare Locals triage at the sub-regional or regional level.	• Promotes greater uniformity of access across the geography **See section 4.4.2 and 5.5 and Detailed Finding 18**	• See above
Clinical governance			
Practice level	• Some rules, as per the *Program Guidelines*, that are applicable to eligible organisations include the following: o The mental health nurse delivers services in collaboration with the medical practitioner. o The medical practitioner is required to practice formal protocols in managing patient mental health care, including the use of a GP Mental Health Treatment Plan, mental health nurse assessment of eligible patients at entry, every 90 days and when patient exit the program using the Health of the Nation Outcomes Scale, including the Child and Adolescent, Adult, and Older Person tools. • Other activities: ad hoc (eg nurse clinical supervision is determined on a site basis between the medical professional and the nurse; professional development is at the nurse's discretion, other than what is required to maintain credentialed status).	• There is wide variability in clinical governance practices, including clinical supervision at a practice level. Quality could be improved if there was a more standardised approach. **See section 5.5 and Appendix C and Detailed Finding 18**	• *Program Guidelines* could be further revised to clarify expectations of mental health nurses and medical practitioners in service provision.
Other levels (regional; national)	• The *Program Guidelines* provides program participants with guidance on patient, organisation and nurse eligibility criteria, administration of the program and guidelines that organisations registered to provide MHNIP should abide by.	• No formal clinical governance arrangements, however the *Program Guidelines* provide a range of requirements that relate to governance type activities. **See Section 5.5 and Appendix C and Detailed Finding 18** • Medical practitioners and nurses from the evaluation agree that the *Program Guidelines* are generally accessible; however there is	• Develop a standardised approach to clinical governance at the regional and national level, including advice on: o triage processes; o case management processes; o risk management; o patient and carer complaint mechanisms; and o identifying and supporting hard to reach

		scope to revise the Guidelines, in particular to allow for greater clarity in some areas including clearer description of reporting requirements and services that can be provided. **See section 5.7.2 and Detailed Finding 20**	population groups. • The *Program Guidelines* could be further revised to clarify roles and responsibilities and reporting requirements

PART A: EVALUATION CONTEXT

1 Introduction

1.1 BACKGROUND TO THE EVALUATION

Healthcare Management Advisors (HMA) was engaged by the Department of Health and Ageing (DoHA) to undertake an evaluation of the Mental Health Nurse Incentive Program (MHNIP). Initiated in July 2007, MHNIP provides payments to community based general practices, private psychiatric practices and Aboriginal Medical Services (AMS) to engage mental health nurses to:

> *……assist in the provision of coordinated clinical care for people with severe mental health disorders.*
>
> *Mental health nurses work in collaboration with psychiatrists and general practitioners to provide services such as monitoring a patient's mental state, medication management and improving links to other health professionals and clinical service providers. These services are provided in a range of settings, such as clinics or patient's homes and are provided at little or no cost to the patient.*[3]

The intent of MHNIP is to:

> *ensure that patients with severe and persistent mental illness in the private health system receive adequate case management, outreach support and coordinated care. MHNIP also assists in relieving workload pressure for general practitioners and psychiatrists, allowing more time to be spent on complex care. Close and effective collaboration between mental health nurses, general practitioners and psychiatrists in the delivery of clinical support and services in the community is expected to:*
>
> - *improve levels of care for people with severe mental disorders;*
> - *reduce the likelihood of unnecessary hospital admissions and readmissions for people with severe mental disorders; and*
> - *assist in keeping people with severe mental illnesses well, and feeling connected within the community.*[3]

1.2 REPORT STRUCTURE

This document is the final report of the evaluation. The report has two parts and seven chapters:

Part A: Evaluation Context

- Chapter 1 (this chapter) describes the overall purpose of the evaluation and the scope of this deliverable;
- Chapter 2 describes HMA's approach to conducting the evaluation; and
- Chapter 3 presents a situation analysis that describes the context and structure of the program.

Part B: Evaluation Findings

The subsequent chapters present the project findings, assessing the program's performance against the evaluation criteria of:

- appropriateness (Chapter 4);
- effectiveness (Chapter 5); and
- efficiency (Chapter 6).

Over-arching findings and possible directions for future consideration are presented in the concluding chapter (Chapter 7).

2 Evaluation: Approach

2.1 EVALUATION SCOPE

Application of the terms *appropriateness*, *effectiveness* and *efficiency* were guided by definitions described by the Secretary, Department of Finance and Deregulation[4]:

- **Appropriateness**: the continued relevance and priority of program objectives in the light of current circumstances such as government policy context, including the suitability of program design in response to identified needs;
- **Effectiveness:** whether program outcomes have achieved stated objectives, and to what extent outputs have contributed to outcomes; and
- **Efficiency:** whether there are better ways of achieving these objectives, including consideration of expenditure and cost per output, project governance arrangements, and implementation processes.

2.2 PROJECT METHODOLOGY

To complete the evaluation HMA undertook the following steps:

(1) **Project initiation –** a project plan was developed and this identified key stakeholders, documents, and data sources.

(2) **Prepared a situation analysis -** including a review of key MHNIP documentation and had preliminary discussions with key stakeholders to establish a comprehensive understanding of MHNIP operations and its environment.

(3) **Evaluation framework developed -** a detailed evaluation framework was developed to inform conduct of the evaluation. The framework contained criteria for determining achievement of objectives of the MHNIP. This guided stakeholder consultations and supported our application for ethics approval for relevant consultations and surveys.

(4) **Modelled demand** - the evaluation team built a spreadsheet model that can project future demand for the program. The model can assess the activity and cost impacts of different demand scenarios including adjustments to the program guidelines. Data was obtained from the Department of Human Services (DHS) for this purpose.

(5) **Conducted provider surveys** - medical practitioners and mental health nurses participating in MHNIP received an online survey about the program operations. The number of survey responses by provider category is shown in Table 2.1.

Table 2.1: Survey responses and responses removed at each stage of the cleansing process

Survey stage	No. of responses	
	Mental Health Nurse	Medical Practitioners
Total respondents who began the survey	355	278
Excluding:		
• answered 'other' to the employment type and were subsequently excluded from the survey		27
• answered the section on demographic questions only	58	20
• answered a small number of questions and appeared to be a duplicate	8	2
Total responses analysed	**289**	**229**

(6) **Conducted case studies -** 18 case study visits were conducted at a range of different service provider type including AMSs, Medicare Locals (formerly Divisions of General Practice), and general and psychiatry practices in metropolitan, regional and rural locations. The team undertook structured interviews at each case study site with medical practitioners, mental health nurses, and consumers using MHNIP (see Table 2.2 for numbers involved).. We also spoke to the CEO and practice or finance manager where they were available.

Table 2.2: Number of case study participants interviewed by organisation type

Participant category	Medicare Local / Division of General Practice	General Practice	Private Psychiatry Practice	Aboriginal Medical Service	Total[a]
Number of sites	*4*	*8*	*4*	*2*	***18***
Mental health nurses	10	9	10	1	**30**
General practitioners	3	10	1	1	**15**
Psychiatrists	1	1	4	0	**6**
Clients	15	34	14	3	**66**
Carers	3	1	1	1	**6**
CEO / Practice Manager / Finance Manager	7	13	5	0	**25**
Total[b]	**39**	**58**	**39**	**6**	**142**

(a) The number of case study participants (respondents) may vary from the total number of responses (consultations) conducted, as some stakeholders were consulted together.
(b) The sum of the columns may be greater than the total, as some participants fell into more than one category, ie GP that was also the principal / CEO.

(7) **Undertook a cost analysis** - a cost analysis of the program was prepared using data on program usage and patient outcomes obtained from case study sites. Information on the number of patients considered in the cost analysis are shown in Table 2.3.

Table 2.3 Patient details received from case study sites (n=15), including details of those included, and number of patients removed from the analysis.

Analysis stage	Measure
Total patient details received	464
Patients excluded	
Patients where hospitalisations not limited to 12 months prior to MHNIP	112
Patient entered after 1/9/2011, and had not exited the program	84
Patient did not have a MHNIP entry/exit date	1
Total excluded	**197**
Patients included	
Patient entered before 1/9/2011 and had exited the program	92
Patient entered after 1/9/2011 and had exited the program	31
Patient entered before 1/9/2011 were receiving support from MHNIP	144
Total included	**267**
Hospitalisations	
Number of hospital admissions 12 months *prior* to joining MHNIP	34
Number of hospital admissions 12 months *after* joining MHNIP	30

Source: Patient Impact Templates completed by case study sites.

(8) **Prepared the final report** - the final report (this document) assesses the appropriateness, effectiveness, and efficiency of MHNIP using the information collected from the preceding project stages.

The remainder of this chapter describes the program logic for MHNIP and demonstrates how this links to the key evaluation arrears specified in the Request for Tender.

2.3 DATA LIMITATIONS

The quantitative data used in the analysis was from a range of sources. Sources included DHS (Medicare) data, provider surveys, case study site visits and a consumer template completed by case study organisations.

The DHS data used in the demand profiling was a full set of data, and therefore representative of MHNIP. However, all other data sample sizes used in this evaluation varied and the project did not test whether they were representative samples. In addition, selection techniques used to obtain data could not be described as random as participating organisations were requested to select the people to be interviewed, including consumers.

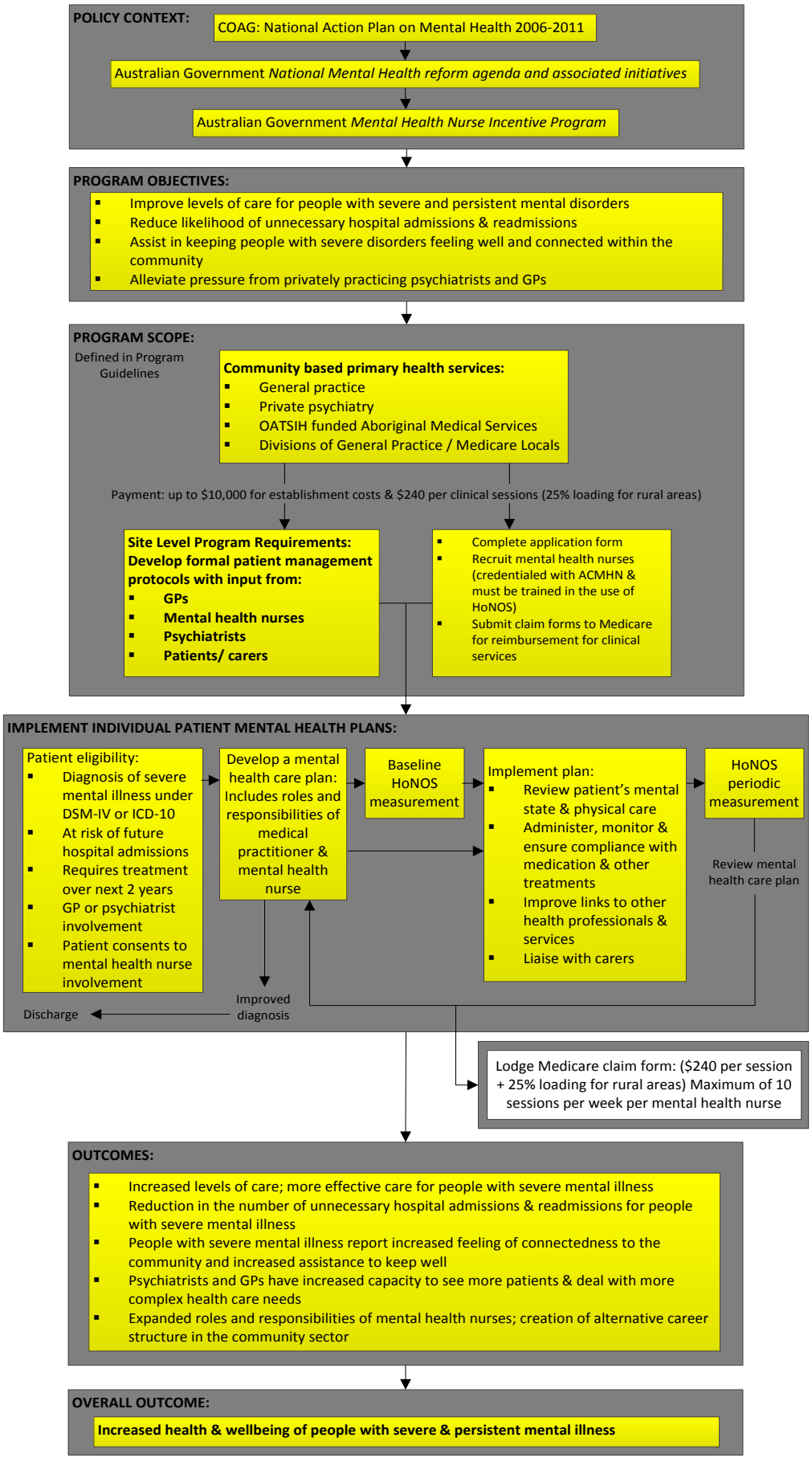
Caution should therefore be taken when interpreting the findings in this report. Observations and trend are indicative of the samples used in the analysis in this evaluation only. Further detailed analysis would be required on a representative sample before the evaluation findings could be described as statistically representative.

2.4 MHNIP PROGRAM LOGIC

The logic for a program explains in summary form how a public policy intervention is expected to work and the underlying cause and effect relationships between program inputs and outputs. Figure 2.1. presents the program logic for MHNIP. This shows the relationship between the following program components:

- **Policy context:** MHNIP was announced in July 2006 as part of the Council of Australian Government's National Action Plan on Mental Health;
- **Program objectives**: the aims of MHNIP are to:
  - Improve levels of care for people with severe and persistent mental disorders;
  - Reduce the likelihood of unnecessary hospital admissions and readmissions;
  - Assist in keeping people with severe disorders feeling well and connected within the community; and
  - Alleviate pressure from privately practicing psychiatrists and GPs.
- **Program scope:** the key program design features of MHNIP, including the financial, operation and service delivery characteristics are;
  - MHNIP is delivered by community based primary health services, including GPs, private psychiatrists and Aboriginal Medical Services funded by the Office of Aboriginal and Torres Strait Islander Health;
  - Eligible organisations receive an establishment grant and payments for sessions of care provided to patients within the program target group;
- **Program requirements:** the requirements for eligible organisations to implement MHNIP, include
  - Development of patient management protocols;
  - Recruitment of a mental health nurse credentialed with the Australian College of Mental Health Nurses (ACMHN); and
  - Reimbursement via submission of claim forms to the DHS;
- **Implementation and service delivery:** the journey for patients receiving support under the program includes: assessing patient eligibility, development of a mental health plan, and implementation of the treatment and support plan; and
- **Outcomes:** the expected overall outcome as a result of the intervention is increased health and wellbeing of people with severe and persistent mental illness.

Figure 2.1: MHNIP Program Logic

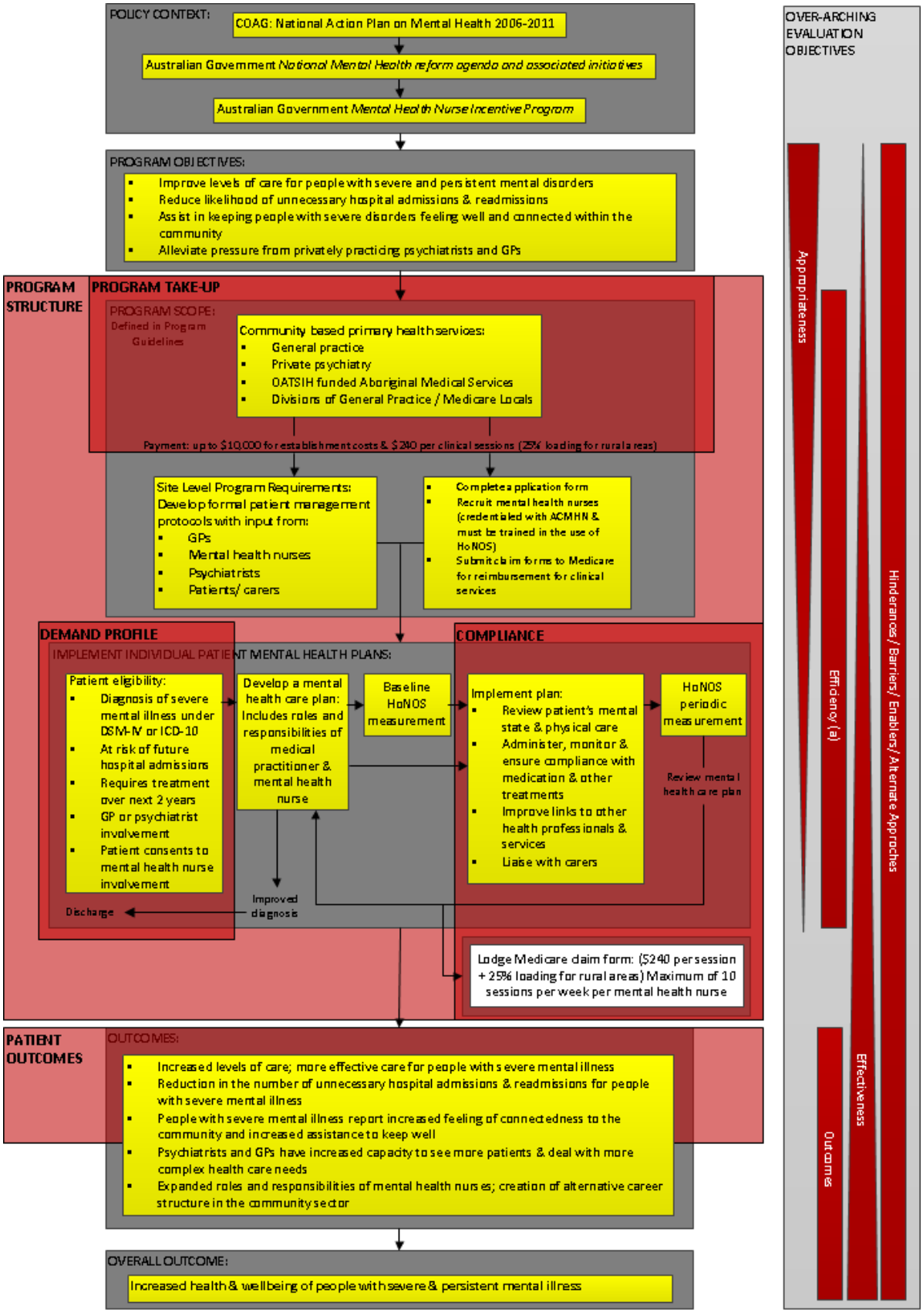


2.5 RELATIONSHIP TO KEY EVALUATION AREAS

Clarification of the program logic demonstrates how the key evaluation areas relate to this conceptualisation of MHNIP, as illustrated in Figure 2.2. This framework guided the development of detailed questions and data collection processes used in the evaluation.

Appendix A documents the relationship between detailed evaluation topics specified in the RFQ and the remaining contents of the report.

Figure 2.2: Relationship of Key Evaluation Areas to the MHNIP Program Logic



(a) Consideration of costs and benefits was undertaken with a *cost analysis*. This was examined as part of the Efficiency examination.

3 Situation Analysis

This chapter describes the context of MHNIP's introduction and how the program operates. It includes details of budget expenditure and levels of program activity. The chapter concludes with a summary of the MHNIP program design features.

3.1 MHNIP POLICY CONTEXT

The Council of Australian Governments (COAG) agreed to a *National Action Plan on Mental Health* in July 2006. One of the four objectives of the Action Plan was:

> *"... increasing the proportion of people with an emerging or established mental illness who are able to access the right health care and other relevant community services at the right time..."*[5]

MHNIP was one of the *Action Plan* initiatives that sought to improve coordination of patient care:

> *"... to prevent people who are experiencing acute mental illness from slipping through the care 'net' and reduce their chances of readmission to hospital, homelessness, incarceration or suicide..... Better coordinated services will also mean that people can better manage their own recovery..."*[6]

The *Action Plan* allocated $191.6 million over five years to the Mental Health Nurse Initiative. The COAG announcement was followed by the appropriation of Commonwealth funds for program start-up in 2006-07, with scaling-up of the program funded from 2007-08.

3.2 PROGRAM DESCRIPTION[7]

Program Guidelines (*the Guidelines*) which are accessible on the DHS web site describe how the program is expected to operate. DHS in consultation with DoHA periodically updates the *Guidelines*. They address a range of program features including:

- Program eligibility for organisations, mental health nurses and patients;
- Roles and responsibilities of medical practitioners and mental health nurses;
- Payment rates and claims processes; and
- Clinical guidelines including care planning processes and collection of patient data.

This section summarises key features of the program operations based on material in the *Guidelines*.

Under MHNIP credentialed mental health nurses working with *eligible organisations* engage collaboratively with psychiatrists and GPs to provide clinical nursing care and coordination of clinical services to patients with severe and persistent mental illness. MHNIP services are provided in a range of settings including clinics, community centres and patient homes.

There are no direct costs to the patient receiving a service under MHNIP. They may incur fees from visiting the GP or psychiatrist for preparation of a care plan or subsequent monitoring visits.

3.2.1 Program Eligibility Requirements

Organisation Eligibility

To be eligible to participate organisations must be community based and have a GP or a psychiatrist with a Medicare provider number. Eligible organisations include:

- general practices;
- private psychiatry practices, and
- Aboriginal and Torres Strait Islander primary health care services funded through the Office for Aboriginal and Torres Strait Islander Health.

Eligible organisations can engage more than one mental health nurse.

State and territory health organisations may not directly participate in the program but can enter shared employment arrangements with eligible organisations.

At 31 May 2012 there were 470 organisations actively participating in MHNIP.

Mental Health Nurse Eligibility

Credentialed mental health nurses have specialist qualifications and training in mental health. From 31 December 2009 a mental health nurse working within MHNIP had to be credentialed with the ACMHN and be trained in the use of *Health of the National Outcomes Scale* (HoNOS). This tool measures the health and social functioning of people with severe mental illness. Training in the administration of HoNOS is available through the ACMHN.

The number of nurses credentialed by ACMHN rose from 234 at the beginning of January 2009 to 1,153 by the end of June 2012, an average increase of 21.9 credentialed mental health nurses per month since January 2009.

Patient Eligibility

GPs and psychiatrists determine which patients have a *severe and persistent mental disorder* and are eligible to participate in the program. Patients must meet all of the following criteria:

- the patient has been diagnosed with a mental disorder according to the criteria defined in:
    - the World Health Organisation *Diagnostic and Management Guidelines for Mental Health Disorders in Primary Care* (ICD 10 Chapter V Primary Care Version), or
    - the *Diagnostic and Statistical Manual of Mental Health Disorders—Fourth Edition* (DSM-IV);
- the patient's disorder is significantly impacting their social, personal and work life;
- the patient has been to hospital at least once for treatment of their mental disorder, or they are at risk of needing hospitalisation in the future if appropriate treatment and care is not provided;
- the patient is expected to need ongoing treatment and management of their mental disorder over the next two years;
- the GP or psychiatrist treating the patient will be the main person responsible for the patient's clinical mental health care, and
- the patient has given permission to receive treatment from a mental health nurse.

A patient is no longer eligible for services under the program when:

- their mental disorder no longer causes significant disablement to their social, personal and occupational functioning, or
- they no longer need the clinical services of a mental health nurse, or

- the GP or psychiatrist, employed to treat the patient is no longer the main person responsible for the patient's clinical mental health care.

3.2.2 Roles and responsibilities

Mental health nurse role

Mental health nurses are the central component of the MHNIP service delivery arrangements. The clinical nursing care they provide may involve establishing a therapeutic relationship with the patient, working with family and carers, reviewing the person's mental state, providing information about physical health care, and working with the patient and carers to maximise medication compliance.

Nurse coordination activities may involve maintaining links with patients, undertaking case conference activities, coordinating access to services outside the primary care clinical setting, contributing to the planning and provision of patient care and interacting with a range of medical and other health professionals to facilitate patient care.

A HoNOS score must be determined for each patient who enters the program. The HoNOS tool must be administered every 90 days to monitor changes in patient symptoms and functioning and when a patient is exiting the program.

The *Guidelines* specify that a session is 3.5 hours in length. Eligible organisations can engage mental health nurses from between one and 10 sessions per week, per nurse, with an average nurse caseload of at least two individual services to patients with a severe and persistent mental disorder per session.

The *Guidelines* state that:

- as a guide, an eligible organisation engaging the services of a full-time mental health nurse should have a current minimum case load of 20 individual patients with a severe and persistent mental disorder per week, averaged over three months;
- when taking into account patient turnover, the expected annual caseload managed by a full-time mental health nurse is 35 patients with a severe and persistent mental disorder, most of whom will require ongoing care over the course of the year; and
- it is expected that a full-time mental health nurse engaged for 10 sessions per week would provide an average 25 hours of clinical contact time per week, with the balance of time spent in related tasks.

Medical Practitioner role

Participating medical practitioners are responsible for developing a *GP Mental Health Care Plan*, or an equivalent plan by psychiatrists. *Items 2700, 2701, 2715* and *2717* of the Medicare Benefits Schedule (MBS) for GPs define the steps for preparing a GP Mental Health Treatment Plan. The care plan must include specific reference to the roles and responsibilities of both the mental health nurse and the treating GP or psychiatrist. Treatment must accord with the plan and relevant clinical guidelines for management of the disorder. The medical practitioner and the mental health nurse must regularly review the care plan.

3.2.3 Payments to eligible organisations

Establishment payments

Eligible organisations are able to apply for a one off establishment payment to cover the upfront costs of engaging a mental health nurse. There are two payment amounts based on the length of metal health nurse engagement:

- $10,000 where the organisation engaged a mental health nurse for at least five sessions per week; or
- $5,000 where the organisation engaged a nurse for one to four sessions per week.

Sessional payments

Payments to eligible organisations for clinical services are made monthly by DHS. Eligible organisations must submit claim forms detailing the number of sessions undertaken within six months following the session.

The sessional rate for claims is $240 (GST inclusive) per session. A 25% loading is applied to the payment for *very remote*, *remote* and *outer regional* services (as defined by Australian Standard Geographical Classification Remoteness Classification), resulting in a rate of $300 per session. The sessional amount is intended to be applied to mental health nurse salary and oncosts, including personal and recreational leave entitlements.

Each application for payment by an eligible organisation requires a range of information, including:

- organisational information: the name of the organisation and the details and numbers of mental health nurses engaged;
- sessional information, including the date of the session, location and number of sessions provided; and
- patient information, including their Medicare card number and the number of face-to-face consultations received.

3.3 PROGRAM EXPENDITURE AND ACTIVITY LEVELS

3.3.1 Budget and Actual Expenditure

The original budget allocations and forward estimates for MHNIP are shown in Table 3.1. This table also gives actual program expenditure since commencement of the program.

Table 3.1: MHNIP – original budget allocation, forward estimates and actual expenditure compared

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Original program budget allocation and forward estimates ($m)[a]	2.1	24.0	37.9	54.9	-	-
Actual program expenditure ($m)[b]	-	2.7	13.4	21.4	27.2	35.6
Annual growth in actual expenditure compared to the previous financial year (%)				59.7	27.1	31.0

(a) Source:http://www.health.gov.au/internet/budget/publishing.nsf/Content/budget2006-glance.htm
(b) Source: Department of Health and Ageing

From Table 3.1 it can be seen that initial take-up of the program was lower than planned. However, actual expenditure increased significantly in recent years, with increases over the previous two financial years averaging 29% in 2010-11 and 2011-12.

3.3.2 Activity Levels

Activity levels under MHNIP followed growth trends in actual expenditure. The number of sessional payments made by DHS under the program is given in Table 3.2.

Table 3.2: MHNIP – number of sessional payments to eligible organisations[a]

	2007-08	2008-09	2009-10	2010-11	2011-12
Number of MHNIP sessional payments to eligible organisations	8,320	50,627	86,456	107,046	140,552
Annual growth in number of sessional payments compared to the previous financial year (%)			70.8	23.8	31.3

Source: DHS
(a) Number of 3.5 hour sessions claimed, not individual services to patients

The May 2012 Budget announced that activity would be capped at 2011-12 service levels pending the outcome of this evaluation.

Table 3.3 shows the number of individual patients recorded by DHS as receiving assistance under MHNIP.

Table 3.3: MHNIP – number of individual patients receiving assistance by financial year

	2007-08	2008-09	2009-10	2010-11	2011-12
Number of individual patients supported by MHNIP during the financial year	6,998	20,608	30,196	38,939	49,842[a]
Annual growth in number of individual patients compared to the previous financial year (%)			46.5	28.9	28.0

Source: DHS
(a) HMA estimate. Actual number of patients at the time or reporting was only available for the 10 months to 30 April 2012 – 41,535 patients. The estimated patient numbers is a straight line projection for the remainder of the financial year, based on session levels for the previous 10 months.

The *Guidelines* require nurses to record the details of at least two patients that they support during a session in order to establish their eligibility to make a sessional payment claim. From the evaluation case study process it was established that not all mental health nurses record every patient contact on the sessional claim form where they provide support to more than two patients during the session. As a consequence the number of patients identified in Table 3.3 probably under-estimates the actual number of patients supported by MHNIP.

3.3.3 The Link between Nurse Numbers, Sessional Activity and Patients Supported

The number of credentialed nurses and their degree of engagement with the program drives the number of sessions provided under MHNIP, and the actual number of patients supported.

The on-line and case study data collection processes for the evaluation identified that not all mental health nurses working under MHNIP work full time (ie many work less than 10 MHNIP sessions per week). ACMHNs advised that a survey of its members in 2011 determined that credentialed mental health nurses engaged in MHNIP service delivery were providing an average of 26 MHNIP sessions per month.

Table 3.4 summarises the data collection results on average levels of sessional service provision over various times (week, month and per annum).

Table 3.4: Average sessional workloads of mental health nurses working under MHNIP – a comparison of different data sources

	HMA On-line Survey		HMA Case Studies		ACMHN Survey	
	Range	Mean	Range	Mean	Range	Mean
Level of full time equivalent employment	0.1 – 1.0	0.78	0.2 – 1.0	0.7	0.1 – 1.0	0.6
Sessions per week	0 – 10	7.6	0 – 10	7.1	0 – 10	6.2
Sessions per month[a]	0 – 44	32	0 – 44	30	0 – 44	26
Sessions per year[b]	335 – 384		314 - 360		272 - 312	

(a) Based on 22 working days per month
(b) Based on 44 and 52 weeks per annum

DHS data was used to calculate the average number of services received by eligible patients. This decreased from 17.9 services per patient per annum in 2009-10 to 13.1 in 2010-11 (see Table 3.5). Similarly, the total number of services per 3.5 hour session claimed decreased from 6.3 services per session in 2009-10 to 4.8 services per session in 2010-11.

Table 3.5: Summary of average number of services per MHNIP eligible patient, 2009-10 and 2010-11

Financial year	Services	Sessions	Patients	Services per patient	Services per session
2009-10	540,048	86,456	30,196	17.9	6.3
2010-11	508,511	107,046	38,939	13.1	4.8

Source: DHS
Figures presented in this table should be interpreted with caution as the accuracy of this data could not be confirmed

3.4 DESIGN FEATURES OF MHNIP: A SUMMARY

Based on the summary of MHNIP operations presented in Sections 3.1 to 3.3 it is now possible to present a summary of the key program design features – see Table 3.6

Table 3.6: MHNHIP Design Features

Program Design Characteristic	Current MHNIP Design Feature
Model of care	• Target group: people in the community with a severe *and* persistent mental illness. • Credentialed mental health nurses work closely with GPs and psychiatrists to provide coordinated clinical services. It should be noted that GPs and Psychiatrists are the primary care givers. • The *Program Guidelines* outline functions that mental health nurses should undertake. • There is no cap on the number of sessions a nurse has with a patient • A nurse can be engaged to provide between one and ten sessions per week, per organisation, with an average nurse caseload of at least two individual services to patients per session.
Program Participation	• Eligible (ie registered) organisations, comprising self-selected: o Private primary care services – general practices and private psychiatry practices o Medicare Locals o Divisions of General Practices o Aboriginal and Torres Strait Islander Primary Health Care Services funded by the Australian Government through the Office for Aboriginal and Torres Strait Islander Health (OATSIH).
Funder	• DoHA
Purchaser	• DoHA is the funder and purchaser (based on retrospective payment of claims in arrears). • Purchasing intelligence: DHS reports.
Demand management	• Nil, until application of the session cap in May 2012. Prior to this activity levels were driven by supply side factors: o number of eligible providers; and o number and availability of credentialed nurses.
Planning	
Practice level	• Triaging at the practice level.

(a) *Characteristics adapted from the framework presented in Duckett, S., and Willcox, S., The Australian Healthcare System, Oxford University Press, South Melbourne, 2011, p.10-11.*

HMA uses the findings from the evaluation assessment presented in Chapters 4 to 6 to critique these program design features and suggest ways forward for future program design (see Chapter 7).

3.5 PREVIOUS MHNIP EVALUATION AND REPORTS

3.5.1 Expansion to private hospitals

In 2009 the Australian Institute for Social Research released a report titled *Evaluation of the pilot of the MHNIP in the private hospital setting*. This report has not been publicly released. The report reviewed the impact of introducing the program at seven pilot private hospital sites. It major findings were:

- there was a strong endorsement of MHNIP within the private hospital setting from its key stakeholders;
- the pilot testing allowed access to services to patients who were unable to or had been rejected by the public mental health system;
- stakeholders in the private hospital system viewed MHNIP as having more strengths than weaknesses and that its weaknesses related to resourcing rather than the service delivery model itself;
- MHNIP had lessened the waiting times to see a psychiatrist in the private hospital setting; and
- There was a high level of patient satisfaction with MHNIP.[8]

The report also recommended that MHNIP should be implemented as an ongoing program in private hospital settings. The cost analysis conducted for the MHNIP evaluation suggests that extension of MHNIP to private hospitals has the potential for cost savings through reduced hospitalisations in addition to better patient outcomes.

3.5.2 Case Studies project

In 2010 the National Advisory Council on Mental Health (NACMH) released a report outlining a series of seven case studies relating to MHNIP. The report provides details on the program context, and examples of differing service models. The report also includes details on the profile of MHNIP patients in each health service and stakeholder feedback about the MHNIP. The key findings from this report include:

- there was wide acceptance of the program and feedback from all stakeholders has been extremely positive;
- the MHNIP is being implemented within a variety of different service models showing that the MHNIP can be adapted to suit the needs of the local community;
- a shortage of appropriately credentialed nurses has resulted in limited uptake of the program to date;
- the program is most likely reaching a wider variety of mental health patients than what is described in the program guidelines;
- the main outcomes from the program include earlier intervention, shorter admissions, improved patient follow-up in the community and improved knowledge and confidence for GPs in dealing with mental health issues;
- patient surveys indicated that 80% of people reported an improvement in the mental health as a result of the program; and
- some of the issues reported within the program included lack of resources in some locations, lack of quality systems and limited use of outcome measures to determine treatment outcomes.[9]

A detailed comparison of the current evaluation findings against these previous projects is provided in Appendix B.

3.6 MENTAL HEALTH PROGRAMS

Both the Australian Government and state and territory governments are involved in the delivery of supports to people with mental illness.

For people with severe and persistent mental disorders, service needs are more than just about clinical care. Housing, social connectedness, secure income, employment and general health services are all essential supports to restore and maintain well-being.

State and territory governments deliver a range of services for individuals living with severe and persistent mental illness, including a range of in-patient and rehabilitation services.

The Commonwealth also funds a number of activities which aim to support people with severe and persistent mental illness and which provide for the broad range of their needs, clinical and other. These include:

Partners in Recovery (PIR)

Partners in Recovery (PIR) is a new program aiming to facilitate better coordination and more streamlined access to clinical and other services and supports that are required by people with a severe and persistent mental illness. The program is geared to coordinate multiple organisations from across a number of sectors to work in a more collaborative and integrated way. The objectives of PIR are:

- facilitating better coordination of clinical and other supports and services to deliver 'wrap around' care individually tailored to the person's needs;
- strengthening partnerships and building better links between various clinical and community support organisations responsible for delivering services to the PIR target group;
- improving referral pathways that facilitate access to the range of services and supports needed by the PIR target group; and
- promoting a community based recovery model to underpin all clinical and community support services delivered to people experiencing severe and persistent mental illness with complex needs.

Suitably placed and experienced non-government organisations will be engaged as PIR organisations in Medicare Local geographic regions to implement PIR in a way that complements existing support and service systems and any existing care coordination efforts already being undertaken.

Support for Day to Day Living in the Community (D2DL)

The *Support for Day to Day Living in the Community* (D2DL) program aims to improve the quality of life for individuals with severe and persistent mental illness by providing an additional 7,000 places in structured and socially based activity programs. This initiative recognises that meaningful activity and social connectedness are important factors that can contribute to a person's recovery.

Phase 1 of the D2DL program ran from 2006 until 2009. During this phase, 49 sites from all states and territories were invited to submit funding applications. From the funding applications received, 60 grants were awarded under the initiative.

Phase 2 of the D2DL program ran from 2009 until June 2011. In this phase, 48 sites participated while 59 grants were awarded under the initiative.

Expansion of the Early Psychosis Prevention and Intervention Center (EPPIC) model

In the 2010-11 Budget, the Federal Government committed to funding four additional EPPIC sites in partnership with interested states and territories. The 2011-12 budget changes commit the Government to engage states and territories to share the cost of funding and supporting an additional 12 centres, bringing the total number of centres to 16, amounting to a $222.4 million commitment over the next five years.

The EPPIC model provides intensive clinical and non clinical support for young people experiencing first episode psychosis promoting early detection and management, holistic support including help with management of housing, education and employment goals.

Personal Helpers and Mentors (PHaMS) service

The PHaMs service is a complimentary initiative to MHNIP managed by the Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA). The PHaMs service aims to provide:

- increased opportunities for recovery for people with severe mental illness;
- a strengths-based, recovery approach; and
- assistance to people aged 16 years and over whose ability to manage their daily activities and to live independently in the community is impacted by severe mental illness.[10]

In addition, the Commonwealth funds the following primary mental health programs aimed at providing short-term evidence based psychological therapies to those people with more common and primarily mild – moderate mental illnesses:

- *Access to Allied Psychological Services (ATAPS)* - Funded through Medicare Locals, ATAPS allows GPs to refer patients to allied health professionals who deliver focussed psychological strategies.
- the *Better Access to Psychiatrists, Psychologists and General Practitioners through the Medicare Benefits Schedule (Better Access)* initiative, which provides Medicare Benefits Schedule rebates for services provided by psychologists and eligible social workers and occupational therapists, on referral from GPs, psychiatrists and paediatricians.; and
- the *Mental Health Services in Rural and Remote Australia (MHSRRA)* program, which provides additional funding to community organisations in rural and remote areas for allied and nursing mental health services.

PART B: EVALUATION FINDINGS

4 Appropriateness: Findings

4.1 ASSESSMENT SCOPE

An examination of a program's *appropriateness* seeks to ascertain:

> *the continued relevance and priority of program objectives in the light of current circumstances such as government policy context, including the suitability of program design in response to identified needs.*

In undertaking the assessment of MHNIP's appropriateness, the evaluation examined the:

- underlying need for the program;
- model of care used, including links with other government funded programs;
- suitability of the program design in relation to identified needs, including:
  - program financial sustainability; and
  - geographic access to the program.

Chapter 7 gives comments on the overall program design after consideration of effectiveness and efficiency issues in Chapters 5 and 6.

4.2 SUMMARY OF FINDINGS: APPROPRIATENESS

The key findings of the evaluation of MHNIP in relation to appropriateness are summarised below.

Key Finding 1: there is a sizeable group of people in the community with severe and persistent mental illness. Expert advice suggests this is in the order of 1.2% of the adult population aged 18 to 64 years. It is estimated that a little under half of this group is the size of the MHNIP target population - 0.6% of the adult population with severe and persistent mental illness primarily reliant on assistance from GPs and psychiatrists in the private sector.

Key Finding 2: the target group will always be bigger than realised demand under MHNIP eg some people will have exited the program because their condition has stabilised. Allowing for this, there is evidence demand exceeds the services currently available under MHNIP – an estimated 49,800 people in 2011-12.

Key Finding 3: there is a high level of support from medical practitioners for the model of care embedded in MHNIP whereby mental health nurses, working in conjunction with GPs and psychiatrists, provide treatment and support to people with severe and persistent mental illness living in the community.

Key finding 4: patients, carers and relevant peak bodies are also supportive of the model of care underlying MHNIP.

Key finding 5: General Practices and Medicare Locals (formerly Divisions of General Practices) accounted for the largest proportion of MHNIP services delivered (80.9%) and mental health nurses employed (76.4%) between 1 July 2009 and 30 June 2011

Key finding 6: there was evidence that medical practitioners are triaging patients to different Commonwealth funded programs supporting people with mental illness, based on clinical need. This included utilising MHNIP for patients with severe and persistent mental illness, and referral of patients with lower levels of disability to support from other appropriate services.

Key finding 7: until the application of session caps in May 2012, realised demand under MHNIP was driven by supply-side factors –the number of eligible providers and credentialed nurses. These program design features were not sustainable in a period of budget restraint.

Key finding 8: access to MHNIP services varies by jurisdiction. The supply-side driven design characteristics of MHNIP meant that service growth was not always linked to geographic areas where there was higher relative need for new services.

Detailed evaluation findings relating to program appropriateness that impact on MHNIP operations are summarised below:

Detailed finding #1: mental health nurses undertake both clinical and non-clinical activities to support their patients.

Detailed finding #2: mental health nurses require a broad range of skills to perform their role under MHNIP.

Detailed finding #3: the care provided by a metal health nurse was not affected by the nature of the eligible organisation.

Detailed finding #4: mental health nurses have local knowledge of what programs, community supports, and social activities are available to support the patients they see through MHNIP. Their capacity to make these links, based on service availability, varies by geographic area and jurisdiction.

Detailed finding #5: there is scope for greater social marketing of new programs, like Personal Helpers and Mentors Services (PHaMS) that may be of assistance to people with severe and persistent mental illness.

Detailed finding #6: there is an opportunity to improve the pathways of patients from MHNIP to other appropriate services where their condition has improved.

Commentary supporting these findings is provided in the remainder of the chapter.

4.3 UNDERLYING NEED

Advice from the Department's mental health technical adviser involved in the original design of MHNIP was that a two step process was required to estimate the program target population in 2006.[11] Using the New South Wales *Mental Health Clinical Care and Prevention Model (NSW-MHCCP model)* it was estimated that 3.5 % of the adult population aged 18 to 65 years had a severe mental illness, where *severity* was based on definitions used by the US National Advisory Mental Health Council and judged according to:

> *...the type of disorder the person has (diagnosis), the intensity of the symptoms they are suffering, the length of time they have experienced those symptoms, especially whether they have had them in the past 12 months, and the degree of disablement that is caused to social, personal and occupational functioning. Some diagnoses, particularly schizophrenia and other psychoses, are usually assigned to the severe category if they have been present in the previous year, but all disorders can have extreme impacts on some people for them to be classed as severe [ie the definition of severe can include anxiety disorders, mood disorders (like depression) and additional disorders like borderline personality disorder and eating disorders]*[12]

The population with *severe and persistent* mental illness is a subset of this group. A statute operating in Wisconsin USA, a jurisdiction that has been a world leader in the development of services for this population, provides the most suitable definition of *severe and persistent* mental illness.[13] This statute defines *severe and persistent* mental illness as:

> *...a mental illness which is severe in degree and persistent in duration, which causes a substantially diminished level of functioning in the primary aspects of daily living and an inability to cope with the ordinary demands of life, which may lead to an inability to maintain stable adjustment and independent functioning without long–term treatment and support and which may be of lifelong duration. Serious and persistent mental illness includes schizophrenia as well as a wide spectrum of psychotic and other severely disabling psychiatric diagnostic categories, but does not include infirmities of aging or a primary diagnosis of mental retardation or of alcohol or drug dependence.*[14]

Expert advice provided to the evaluation team said that applying this definition meant that around 1.2 % of the adult population had severe and persistent mental illness at the time MHNIP was established.

HMA was advised this definition of the program target group is still relevant in 2012.[15]

Applying this proportion to the ABS estimated resident population figures for 2012 implies that there are approximately 170,000 adults aged 18 to 64 years in 2012 who have a severe and persistent mental illness.[16] While a small proportion of this group require long term hospital or residential care (estimated at around 2,000 based on the number of these types of beds reported by states and territories[17]), the vast majority are living in the community with a subgroup of these requiring periodic short term hospital care.

Not all people with severe and persistent mental illness living in the community require the services offered by the MHNIP program. This is because the person may be:

a. primarily under the ongoing clinical care of the local state or territory mental health service rather than a GP or private psychiatrist; or

b. primarily under the clinical care of a GP or private psychiatrist, but

   i. may have already seen a MHNIP nurse and decided not to continue treatment and support; or
   ii. is receiving comparable support from an alternative provider such as a non government organisation; or
   iii. has exited from the program because their condition has stabilised; or
   iv. may not want to seek / feel unready to seek additional support for their illness, even though they may be accessing a GP or psychiatrist.

Extensive survey and case study analysis would be needed to estimate the size of each of these groups, a task beyond the scope of the current evaluation. However, there is reasonable evidence available to estimate the size of category (a), the subgroup of the target population who are receiving ongoing care from a state and territory mental health service. Arguably, given that a core function of state and territory public mental health services is to provide care to this population, this is the most important group to account for when finalising estimates of the demand for MHNIP services.

Since the introduction of the *COAG Action Plan Annual Progress Report,* states and territories have been reporting annually on the number of people seen by their public community mental health services. The most recent data provided to DoHA for the forthcoming COAG report, covering 2010-11, indicate that a total of 351,690 people received clinical mental health care in state and territory community mental health services in 2010-11[18], a figure that has been relatively stable on a per capita basis since reporting commenced in 2006-07. Approximately 76 per cent of this group are in the adult age range 18-64 years, suggesting that about 267,000 people aged 18-64 receive clinical mental health care annually through state and territory mental health services.

Advice from the DoHA indicated that accurate data are not available to identify the proportion of the 267,000 who have severe and persistent conditions but that it would be reasonable to conservatively estimate this group as comprising one third of the state and territory adult treatment group – that is, about 88,000 people.

We have adjusted the demand model to account for this group, by reducing the 170,000 total potential target population by the estimated 88,000 receiving clinical care through the various state and territory mental health services. The resulting statistic for assessing adequacy of current and projected future service requirements is 0.6% of the adult population with severe and persistent mental illness likely to seek or receive assistance under MHNIP (around 82,000 people based on 2010-11 data).

While this number does not take account of the other factors that may lead a person to not require MHNIP (i.e. factors (b)(i) to (b)(iv) above), this is considered reasonable within the levels of uncertainty of the modelling. In particular, any reduction in the estimates necessary for these groups is likely to be offset by the fact that a small proportion of the MHNIP client population fall outside the 18-64 year age range. This is considered appropriate as the 18-64 year age band is used here only for modelling purposes, to identify the MHNIP core target group, rather than imply arbitrary program eligibility restrictions based on age.

Based on activity projections supplied by DHS, HMA estimated that 49,842 patients received a service under MHNIP in the 12 months to 30 June 2012.

Key Finding 1: there is a sizeable group of people in the community with severe and persistent mental illness. Expert advice suggests this is in the order of 1.2% of the adult population aged 18 to 64 years. It is estimated that a little under half of this group is the size of the MHNIP target population - 0.6% of the adult population with severe and persistent mental illness primarily reliant on assistance from GPs and psychiatrists in the private sector.

Anecdotal information collected during the consultation process suggested that demand for MHNIP services exceeds current levels of service provision, a perspective supported by information collected during the evaluation survey of participating medical practitioners and mental health nurses. More than 62% of medical practitioners using the program considered that patient demand out-stripped the availability of MHNIP treatment capacity in their organisations (see Table 4.1).

Table 4.1: Patient demand - the views of participating medical practitioners

Are all suitable patients being managed under MHNIP?	No. of responses	%
Yes	52	27.2
No	120	62.8
Unsure	19	10.0
Total	**191**	**100**

(Source: medical practitioner survey)

Key Finding 2: the target group will always be bigger than realised demand under MHNIP eg some people will have exited the program because their condition has stabilised Allowing for this, there is evidence the size of the potential program target group exceeds the services currently available under MHNIP – an estimated 49,800 people in 2011-12.

4.4 MHNIP MODEL OF CARE:

4.4.1 The role of mental health nurses

Mental illness reduces a person's capacity to carry out everyday activities, to work or study and to maintain relationships with family, friends, and the community. This places these individuals at higher risk of experiencing socioeconomic disadvantage, poor housing, abuse, neglect, discrimination, reduced access to healthcare and social isolation.[19]

GPs and psychiatrists contacted through the case studies affirmed the difficulties they had in addressing the long-term treatment and support needs of many people living in the community with severe and persistent mental illness. This is because of the:

- high level of demand GPs and psychiatrists have for their services generally, over and above the services sought by people with severe and persistent mental illness;
- challenging nature of these patients, due to their complexity;
- difficulty medical practitioners sometimes experience in determining what types of treatment and support they are best placed to provide these patients; and
- constraints of the fee for service system that medical practitioners operate under in the private systems that limits the amount of time they can devote to supporting these patients.

There was strong support for MHNIP model of care by medical practitioners. They particularly liked:

- the flexibility of the *Program Guidelines* around identifying in scope patients; and
- the discretion available to nurses to see patients reasonably regularly, and for a flexible duration, in response to the specific needs of each individual.

Medical practitioners had a high level of respect for the treatment and support services that mental health nurses were able to provide to patients under the program and the positive impact this was having on patient outcomes.

Medical practitioners interviewed during the case studies supported these positive views about the impact of mental health nurses.

"I have received very good feedback from patients. The program allows for relatively greater intensity, particularly in the beginning. Psychiatrists do not have the same availability of time to dedicate to each patient. It is this intensity of service that accounts for a lot of the improvement"

Psychiatrist, private practice, regional New South Wales

"There has been a material improvement in the wellbeing of the patients supported by X [the mental health nurse]. I know him well and trust his judgement. It [the program] does facilitate hospital avoidance."

GP, AMS, regional New South Wales

"The mental health nurse has greater flexibility to deal with issues. They can follow up and this relationship with the patient allows them to catch any early warning signs. Mental health patients are not getting as sick."

GP, general practice, regional South Australia

"The mental health nurse keeps patients out of hospital and provides better coordination. Initially I had a group of elderly patients with mental illness who would have frequent hospitalisations associated with their mental illness. The mental health nurse has assisted management of these patients and kept them out of hospital."

GP, general practice, regional Queensland

Key Finding 3: there is a high level of support from medical practitioners for the model of care embedded in MHNIP whereby mental health nurses, working in conjunction with GPs and psychiatrists, provide treatment and support to people with severe and persistent mental illness living in the community.

The *Program Guidelines* outline functions that a mental health nurse should undertake. They specify two categories of function: *provision of clinical nursing services* and *coordination of clinical services*. The *Guidelines* also state that mental health nurse functions are not limited to those listed activities.

The case study process sought to identify the most common activities undertaken by mental health nurses with respect to MHNIP patients. Table 4.2 shows the thirteen types of intervention used on more than half of the patients interviewed during the evaluation case studies. *Psycho-education* was used on nine out of every 10 MHNIP patients seen at case study sites but there was also a range of non-clinical services provided eg *advocacy* and *liaison and support*, and *networking and collaboration*.

Table 4.2: Mental health nurse interventions applied to MHNIP patients, based on experience of patients interviewed during evaluation case studies

Interventions applied in a sample of case study patients	% of patients receiving interventions
Psycho-education	92.3%
Engages consumer in their care /treatment plan to support their recovery	88.5%
Liaison and support for patients, family, carers and other professionals	84.6%
Acceptance and Commitment Therapy (Mindfulness)	80.8%
Medication administration and management (including managing compliance)	80.8%
Liaison, networking, collaboration and managing referral to other services	80.8%
Advocacy	80.8%
Cognitive Behavioural Therapy	76.9%
Brief Solution Focused Therapy	76.9%
Managing co-morbidities	69.2%
Motivational interviewing	61.5%
Suicide prevention	61.5%
Joint sessions with GP and other health professionals	53.8%

Source: case study interview, mental health nurses

There were a further 22 interventions identified in the case study process used on less than half of the patients interviewed.

Detailed finding #1: mental health nurses undertake both clinical and non-clinical activities to support their patients.

Table 4.3 shows the ranges of skills required by mental health nurses to apply the interventions listed above in Table 4.2.

Table 4.3: Skills required by mental health nurses

Skills to support the provision of interventions applied to a sample of case study patients	% of patients where skills were needed
Pharmacology	100.0%
Psycho-education	100.0%
Physical health care	92.3%
Establishing a therapeutic relationship	88.5%
Mental Health Assessment and monitoring	88.5%
Care and treatment planning	88.5%
Risk Assessment and monitoring	88.5%
Awareness of health care environment and other services	88.5%
Treatment team coordination, supervision, and case discussion	88.5%
Health promotion and coaching	84.6%
Develop a nursing diagnosis and or contribute to the clarification of diagnosis.	80.8%
Pre and post outcome monitoring	76.9%
Collaboration with consumers, carers, stakeholders to develop partnerships	73.1%

(Source: case study interview, mental health nurses)

Detailed finding #2: mental health nurses require a broad range of skills to perform their role under MHNIP.

The ACMHN advised that mental health nurses often have responsibility for establishing policies, procedures reporting and preparing program audits. Mental health nurses provided feedback to ACMHN that there is a lack of support, resources and information available to support them in these activities.

Details of a patient case study are provided in Figure 4.1 to demonstrate the role and impact mental health nurses can have on participating patients.

Figure 4.1: Case study: an example of how the MHNIP model of care works

Ms X is a client of a private psychiatry practice and has been accessing MHNIP services for four years. Her HoNOS measure a year ago was rated at 14. Her current MHNIP care needs are classified as *medium*, with a current HoNOS measure of 10. Ms X now has contact with the mental health nurse once a week, through a combination of clinic visits and by telephone calls.

Prior to joining the MHNIP, Ms X had one hospital admission in relation to her mental health illness. Since being in MHNIP, there have been no hospital admissions. Over the last 12 months, through her interaction with MHNIP, has:

- stabilised medication use;
- improved family interaction; and
- been supported to find part-time employment.

The mental health nurse linked Ms X into a community program called Stepping Stones, a recovery program designed to empower and support its members. It is structured as a work-ordered day, encompassing four streams of hospitality, housing, employment and education; and clerical, administration and training. Ms X's view of this program was positive:

"[Stepping Stones] is good. It provides peer support."

Over the past year, interventions used by the mental health nurse to support Ms X included:

- acceptance and commitment therapy
- advocacy
- brief solution focussed therapy
- cognitive behavioural therapy
- conflict resolution
- engaging consumer in care plan
- group therapy
- liaison, networking, collaboration and refer to other services
- managing comorbidities
- medication administration and management
- motivational interviewing
- psycho-education
- suicide prevention

The skills required by the mental health nurse in delivering the above interventions and supporting Ms X included:

- awareness of health care environment and other services
- care and treatment planning
- establishing a therapeutic relationship
- health promotion and coaching
- mental health assessment & monitoring
- pharmacology
- physical health care
- pre & post outcome monitoring
- psycho-education
- risk assessment & monitoring
- treatment team coordination, supervision, and case discussion

Ms X is a strong supporter of the MHNIP model of care. Whilst she found part-time employment, she credits the mental health nurse for assisting her in keeping that job.

"I would have lost my job if not for the mental health nurse"

Source: Evaluation case study

Throughout the evaluation there were supportive comments from both consumers and their carers on how the MHNIP model of care affected them.

"He [the mental health nurse] sits me down to talk about the past. After that he tries to talk to me about not thinking about suicide. He tells me to go for a walks when I'm angry. He said 'Go and do something instead of taking the tablets.'

I don't know how to put it into words. He's been real helpful. He worries about me."

Patient, general practice, Tasmania

"Having a doctor and a disability pension is not enough. I need support".

Patient, metropolitan New South Wales

"It [MHNIP] has impacted on C [the patient] so much. He used to refuse to come to the service [an AMS]. Dr B put him in contact with M [the mental health nurse]. I thought he was beyond help. I was sceptical about getting another counsellor. I road tested him [the mental health nurse]. I felt so relieved. M has saved our relationship. It has only been three months. He has turned C around. C has given up [non-prescription] drugs and it's been good for him to see [that he can function without drugs]. C is seeing M every Friday afternoon. If you know anyone with schizophrenia, they don't want to leave home. He was constantly paranoid.

[But things have changed.] ..... Last week he went and did the grocery shopping. I was so proud of him. Come and walk a day in my shoes and you'll see it [MHNIP] actually works".

Carer of a client using MHNIP, AMS, regional New South Wales

Peak bodies whose membership operates in the primary and specialist mental health area, including the Royal Australian and New Zealand College of Psychiatrists and the General Practice Mental Health Standards Collaboration, Royal Australian College of General Practice, also affirmed their strong support for the program.

Key Finding 4: patients, carers and relevant peak bodies are also supportive of the model of care underlying MHNIP.

4.4.2 Impact of eligible organisation structure on role and services provided

Chapter 3, Section 3.2.1 described the different types of organisation eligible to participate in MHNIP and involved in the case study process. HMA found that the eligible organisation type had a minor impact on the operations of the triaging process, prior to acceptance of a patient into MHNIP to receive care:

- in eligible organisations operated by a psychiatrist, GP or an Aboriginal Medical Service (AMS) a medical practitioner was always involved in the initial assessment of patient eligibility for MHNIP. After this initial assessment by the medical practitioner, the patient was then referred directly to the mental health nurse for preparation of a detailed care plan; and
- a small variation in this process was observed where the eligible organisation was a Medicare Local and was engaged with more than one mental health nurse. In this situation a mental heath nurse coordinator employed within the Medicare Local allocated the patient to a mental health nurse, after the initial assessment by a medical practitioner.

The evaluation found that following the allocation process the care provided by a metal health nurse was not affected by the nature of the eligible organisation ie the same types of treatment and care coordination were provided by mental health nurses, irrespective of the eligible organisation type.

Detailed finding #3: the care provided by a metal health nurse was not affected by the nature of the eligible organisation.

The proportion of services delivered and mental health nurses by *eligible organisation type* is presented in Table 4.4. This information is for a two year time frame, 1 July 2009 to 30 June 2011. It is indicative only as aspects of the source data from DHS could not be reconciled.

This data reveals just over 80% of MHNIP services were delivered through *General Practices* and Medicare Locals (formerly Divisions of General Practice). Likewise, they account for the largest number of mental health nurses and MHNIP sessions. At the other extreme, *Aboriginal Health Services* have had minimal involvement in MHNIP over the time period reviewed.

Table 4.4: Proportion of MHNIP services delivered and mental health nurses engaged by eligible organisation type, 2009-2011

Eligible Organisation Type	% of MHNIP services[a]	% MHNIP sessions[b]	% Mental health nurses[c]
General practices	53.5%	43.2%	40.8%
Division of General Practice / Medicare Local	27.4%	34.0%	35.6%
Private Psychiatry Practice	15.9%	16.2%	19.8%
Private Hospital	2.3%	4.7%	3.0%
Aboriginal Health Service	0.9%	1.9%	0.9%
Total	***100%***	***100%***	***100%***

(Source: DHS)
(a) A service represents treatment provided by a mental health nurse to a MHNIP patient. It can be provided in a range of settings, such as in clinics or at a patient's home and also by telephone. Services include clinical nursing services and coordination of clinical services for patients with a severe and persistent mental disorder.
(b) A session represents 3.5 hours and is the basis for claiming the MHNIP sessional rate. A fulltime mental health nurse works 10 sessions per week, with an expectation of having an average nurse caseload of at least two individual services to patients with a severe and persistent mental disorder per session.
(c) Mental health nurse data is calculated on the unique identification numbers on the claim forms, and therefore does not represent a measure of fulltime equivalence. Therefore caution is needed when comparing the proportion of services and mental health nurse columns.

Key Finding 5: General Practices and Medicare Locals (formerly Division of General Practices) accounted for the largest proportion of MHNIP services delivered (80.9%) and mental health nurses employed (76.4%) between 1 July 2009 and 30 June 2011.

4.4.3 Connections and linkages with community support and social programs and activities

All mental health nurses consulted during case studies said they referred patients to other support programs. Mental health nurses are able to make these connections because they have a strong understanding of local service delivery networks. The case studies identified a range of programs to which mental health nurses refer. These included:

- Centrelink;
- public housing services;
- drug and alcohol services;
- employment agencies;
- disability employment services; and
- psychiatric disability and rehabilitation support services operated by NGOs such as the Salvation Army and NEMII.

In practice, what is actually available in a specific location limited the nurse's ability to make further support connections for their clients. This varied according by geographic area. Throughout Australia, metropolitan areas generally have better access to a broader range of non-clinical psychiatric disability rehabilitation and support services compared to non-metropolitan areas.

Detailed finding #4: mental health nurses have local knowledge of what programs, community supports, and social activities are available to support the patients they see through MHNIP. Their capacity to make these links, based on service availability, varies by geographic area and jurisdiction.

The case study process suggested there was less general awareness of newly emerging programs like PHaMS.

Detailed finding #5: there is scope for greater social marketing of new programs, like PHaMS, that may be of assistance to people with severe and persistent mental illness.

4.4.4 Links with other Commonwealth Government funded programs

The survey of medical practitioners and mental health nurses revealed a consistent pattern of awareness around other Commonwealth programs that provide funding to support people with mental illness.

The medical practitioner survey identified that GPs and psychiatrists use *MBS Items* to deliver preparation of a mental health plan for MHNIP patients.

The case studies revealed that many GPs consciously triage their patients to different support programs based on clinical need: patients triaged to MHNIP, as expected, were placed on that pathway because of their severe and persistent mental illness (see Chapter 5, Section 5.4.2 which discusses processes for patient selection). There was some evidence that Medicare Locals triage at the sub-regional or regional level, promoting greater uniformity of access across the geography. GPs said that patients referred directly to *Better Access* or *ATAPS* were more likely to have mild to moderate mental illness.

"They [the different Commonwealth funded programs] are for a different sub-types of population. Depends on what fits best with the patient.

GP, metropolitan Tasmania,

"We use ATAPS for mild depression - less risky patients. MHNIP sits between ATAPS and acute mental illness."

GP, metropolitan Queensland

"I refer to *Better Access* or *ATAPS*. But if patients are severe enough I refer to M [the mental health nurse] or hospital if they're really bad."

GP, AMS, regional New South Wales

"It's one of a kind in this space. Patients would fall through the gap if not for MHNIP. It's targeted at the right level, between acute and community psychiatric services."

Mental health nurse, regional Queensland

These triage pathways are appropriate and reflect the underlying targeting of the different mental health programs. GPs advised that they maintained overall responsibility for clients who receive services under MHNIP as their treating physician in accordance with the requirements of the Mental Health Treatment Plan.

Key Finding 6: there was evidence that medical practitioners are triaging patients to different Commonwealth funded programs supporting people with mental illness, based on clinical need. This included utilising MHNIP for patients with severe and persistent mental illness, and referral of patients with lower levels of disability to support from other appropriate services.

During consultations both the Royal Australian and New Zealand College of Psychiatrists and the ACMHN it was noted that there was scope to improve pathways for patients from MHNIP to ATAPS and other appropriate services where their condition improves. This is consistent with the ATAPS Program Guidelines:

> *A person with severe mental illness whose condition may benefit from focussed psychological strategies may be provided with ATAPS services…..When a person*

has a long term (persistent mental illness) ATAPS may not be able to meet their needs over time.

HMA only observed this linkage at one case study site, as described below:

> "MHNIP patients may access ATAPS through their 'healthier' periods - but not at the same time. They may also access alcohol and drug services as the patient may need to detox prior to medication management"
>
> *Mental health nurse, metropolitan Queensland*

Promoting appropriate linkages between MHNIP and other services, together with ensuring patient care is consistent with MHNIP exit criteria, could have broader benefits by increasing patient flows through MHNIP.

Detailed finding #6: there is an opportunity to improve the pathways of patients from MHNIP to other appropriate services where their condition has improved.

4.4.5 Role delineation between MHNIP and jurisdiction- based mental health services

In Australia, the mental health system is delivered by a combination of Commonwealth and State and Territory Government programs. In broad terms, the Commonwealth's current role is to:

- provide policy and funding leadership for primary mental health care and subsidise access to private specialist care (including in private hospitals);
- provide leadership in supporting national effort such as monitoring reporting, data collection and policy and planning;
- drive workforce development; and
- provide employment and education support by;
  - funding specific programs targeting priority areas such as suicide prevention, as well as programs for specific groups such as young people, and detainees; and
  - to fund income support, housing and other broader community services.

The key role of states and territories in mental health care is the provision of *specialised community mental health services* and inpatient care which primarily targets people with a severe mental illness.

Representatives from jurisdiction based mental health services were not interviewed during the evaluation. However, case study meetings revealed anecdotal feedback from MHNIP service providers and patients about their interaction with state based mental health services.

Some of the mental health nurses interviewed worked in state based mental health prior to being engaged under the MHNIP. These nurses said that they continued to liaise and work with state based mental health around particular needs of their patients, for example:

- accessing acute care teams if and when required, if the condition of their patient deteriorated;
- seeking assistance from state health mental teams as a point of contact for clients when the nurse took annual leave; and
- accessing information about patients that may have been cared for under the state mental health service prior to commencing with the MHNIP.

Some MHNIP mental health nurses considered their clients had no place in the state based systems, as they were not *acute* enough. As a result, prior to MHNIP, such people would have

found it difficult to receive the level on ongoing mental health care they required in the state mental health system.

The frequency of communication with state mental health services varied depending on location of the MHNIP eligible organisation and accessibility of services.

Many MHNIP clients interviewed reported they had previous contact with state and territory mental health services. A number said they sought to avoid those services. Reasons that they gave were:

- they found state and territory mental health service staff frequently changed (due to staff turn-over and shift arrangements), which meant they were seeing different clinicians; and
- turnover of staff meant clients were often having to re-tell their stories.

These patients were often grateful for the services made available under MHNIP. They preferred this service over the state based services because of their ability to develop a relationship with the care provider.

4.5 AGGREGATE PROGRAM DEMAND

As noted in Section 3.3.1, actual expenditure under MHNIP grew by an average of 29% per annum over the last two financial years, 2010-11 and 2011-12. This growth was higher than anticipated during the budget process, as illustrated by actual expenditure for MHNIP when compared to the Budget Papers budget allocation.

Table 4.5: MHNIP: Actual Program Expenditure Compared to Budget Allocation

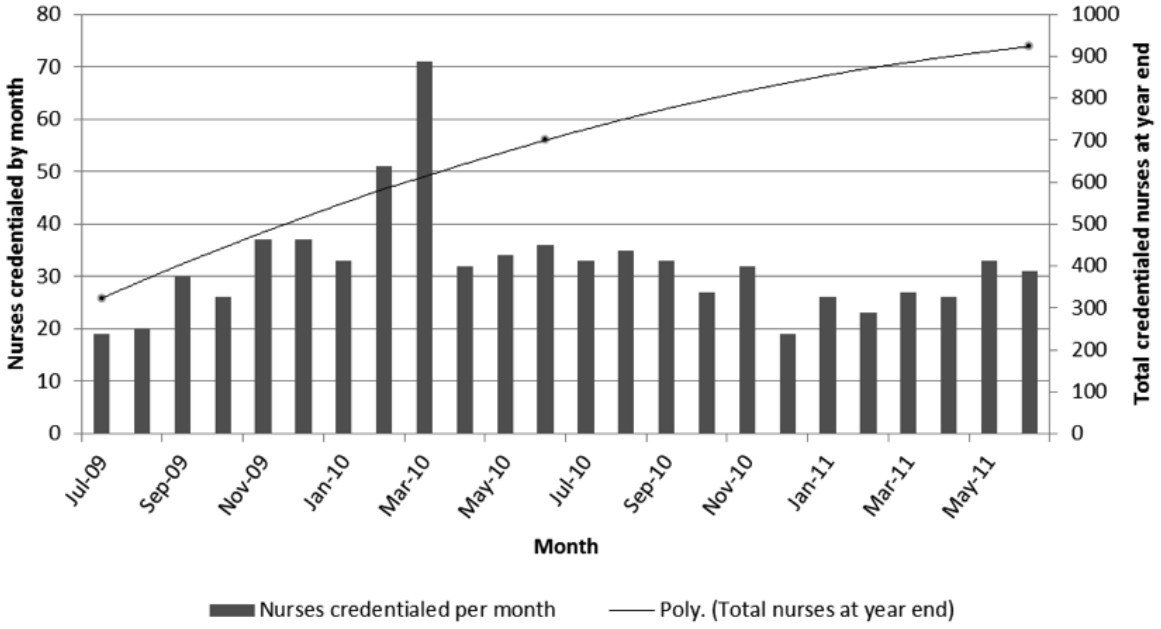
	2010-11	2011-12
Budget allocation $m	23.5	26.3
Actual expenditure $m	27.2	35.6
Change	15.7%	35.4%

Source: DoHA

The inability to project expenditure accurately reflects the supply-side driven nature of demand (until the application of session caps in May 2012) ie demand was driven by the number of eligible providers and credentialed nurses. While there is a large cohort of people with a severe mental illness that meet the entry requirements for MHNIP, until the application of the cap it was the number of eligible organisations and credentialed nurses that drove the expenditure of the program.

The number of nurses credentialed by the ACHN rose from 352 at the beginning of July 2009, immediately prior to introduction of the need for mandatory credentialing, to 923 by the end of June 2011, an average increase of 25 nurses per month. Figure 4.2 shows the number of nurses credentialed by month and the total number of nurses at years end.

Figure 4.2: Nurses credentialed by month and total number of nurses at month end, July 2009 to June 2011.



Data source: ACMHN
Nurses credentialed by month contains both newly credentialed and re-credentialed nurses. Data on the number of newly credentialed mental health nurses was not available.

This graph shows a consistent increase in the total number of credentialed MHNs. The exception was in February and March 2010 where there was a large upward 'spike' linked to the change in the *Guidelines* that required nurses participating in the MHNIP program to lodge their application to become credentialed by the ACMHN by 31 December 2009.

Medical practitioners participating in MHNIP commented on their perceptions of growing demand during the case study process.

> *"The demand was always there but there was no service. Increased knowledge of the service increases demand"*
> *GP, private practice, regional New South Wales*
>
> *"Demand was there as it's a gap in the public system. Nurse availability has enabled increased referrals."*
> *Private psychiatrist, metropolitan Queensland*
>
> *"Yes, demand is increasing. Patients from other practices are presenting for mental health care. Patient word of mouth is spreading."*
> *GP, private practice, metropolitan Victoria*

Although the underlying model of care is strong (as demonstrated by the findings in Section 4.4), the supply driven design characteristic of MHNIP is problematic. The levels of unplanned growth are not sustainable in a period of budget restraint and significant resource allocation to new programs in the mental health area.

Key Finding 7: Until the application of session caps in May 2012, realised demand under MHNIP was driven by supply-side factors –the number of eligible providers and credentialed nurses. These program design features are not sustainable in a period of budget restraint.

4.6 GEOGRAPHIC ACCESS TO THE PROGRAM

The supply-driven design features described above have contributed to a further characteristic of the program: uneven access to MHNIP services across the country.

As part of the evaluation HMA developed a model to project demand of MHNIP sessions and patients in 2012-2013. Summary results of the model output showing the number of MHNIP sessions provided at the jurisdiction level, relative to the size of the target population within that jurisdiction, are shown in Table 4.6.

The effect of the supply driven program design features was that use of the program could 'take-off' where there was strong interest in the program and organisation and nurse sponsors. Where these preconditions did not exist, availability was patchy or even non-existent, as in the Northern Territory.

Table 4.6: 2012-2013 Access to MHNIP services by jurisdiction: *Derived Estimate of Patient Numbers Receiving MHNIP* as a Proportion of the *MHNIP target group*[a]

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total
Number of MHNIP Sessions, 2012/13	30,172	72,472	29,368	4,596	5,628	5,400	0	348	147,984
Derived Patients[b]	10,940	26,278	10,649	1,666	2,041	1,958	0	126	53,658
Estimated MHNIP target population[c]	26,730	20,763	17,266	6,024	8,785	1,792	915	1,400	83,675
Derived Patients as % of Target population	**40.9%**	**126.6%**	**61.7%**	**27.7%**	**23.2%**	**109.3%**	**0.0%**	**9.0%**	**64.1%**

(a) 0.58% of the2012-13 adult population aged 18 to 64 years.
(b) MHNIP derived patient numbers: a calculation of the estimated number of patients was derived based on assumptions about by the average number of patients per session and the average number of sessions received by a patient.
(c) Collated from ABS Population projections Cat 3222.0, Series B

Key Finding 8: access to MHNIP services varies by jurisdiction. The supply-side driven design characteristics of MHNIP meant that service growth was not always linked to geographic areas where there was higher relative need for new services.

Information in Table 4.6 suggests that the MHNIP target population may be over-serviced in parts of Victoria and Tasmania. Further investigation of the underlying level of needs of patients accessing the program needs to occur before firm conclusions are made on this issue. Chapter 5, Section 5.10 provides additional commentary on variability in the levels of patient's mental health and wellbeing observed at case study sites.

Access to MHNIP by socioeconomic status was not explored as part of this evaluation.

5 Effectiveness: Findings

5.1 ASSESSMENT SCOPE

Examination of a program's *effectiveness* seeks to ascertain:

> *whether program outcomes have achieved stated objectives, and to what extent outputs have contributed to outcomes.*

In assessing MHNIP effectiveness the evaluation looked at:

- the program uptake;
- the process of care management;
- clinical governance;
- patient outcomes, including impact on
    - patient mental health and wellbeing, as measured by HoNOS scores;
    - hospital admission rates; and
    - patient connection to the community, including employment participation and social engagement;
- the *Program Guidelines*;
- payment structure; and
- compliance controls.

5.2 SUMMARY OF FINDINGS: EFFECTIVENESS

The key findings of the evaluation of MHNIP in relation to effectiveness are summarised below.

Key Finding 9: patients being supported under MHNIP are benefitting from improved levels of care in the form of greater continuity of care, greater follow-up, timely access to support, and increased compliance with treatment plans.

Key Finding 10 examination of a sample of MHNIP patients in the evaluation cost analysis showed a downward trend in their HoNOS scores, a measure of mental health and social functioning. This statistically validates qualitative perceptions that the treatment and support provided by mental health nurses improves the mental health and wellbeing of patients receiving support under the program.

Key Finding 11: based on an examination of a sample of MHNIP patients, the HoNOS score of patients using state and territory mental health services were on average at similar levels to the scores of MHNIP patients, affirming that the program is providing support to people with severe mental illness.

Key Finding 12: quantitative evaluation evidence showed overall mental health hospital admissions decreased by 13.3% for a sample of MHNIP patients in the 12 months following their involvement in the program. This was not true for all conditions: bipolar disorders showed a slight increase in the number of admissions.

Key Finding 13: for the same sample of patients, when they were admitted to hospital following their engagement in MHNIP, there was on average a reduction in their total number of admission days by 58% and the average length of stay fell from 37.2 days to 17.7 days.

Key Finding 14:there was some evidence of increased patient employment by MHNIP patients.

Key Finding 15: MHNIP has encouraged and facilitated patient's increased involvement in social and educational activities.

Key Finding 16: MHNIP has had positive flow on benefits to some carers of MHNIP patients.

Key Finding 17: MHNIP has had other positive impacts on patients, including improved family interactions and reductions in the number of emergency department presentations.

Key Finding 18:MHNIP has had a positive impact on medical practitioner workloads by increasing their time available to treat other patients and improve patient throughput.

Detailed evaluation findings relating to program effectiveness that impact on MHNIP operations are summarised below:

Detailed finding #7: barriers to patient entry into MHNIP still exist relating to: (a) patient population characteristics, such as not having a GP or experiencing stigma associated with seeking treatment; and (b) characteristics of the program operations eg the lack of access to mental health nurses in some areas.

Detailed finding #8: participating organisations are not able to treat all suitable clients under MHNIP and use waiting lists and triaging to manage excess patient demand.

Detailed finding #9: eligible organisation's decision to participate in MHNIP was driven by perceived needs of the catchment area where they operate and the synergies of the MHNIP model with an organisation's existing approach to care, which was generally accepting of a multidisciplinary approach.

Detailed finding #10: barriers to entry into MHNIP for organisations included the need to recruit suitable mental health nurses, perceptions that subsidy levels were insufficient, and difficulties with cash flow management on commencing the program.

Detailed finding #11: mental health nurses participating in the program were attracted to the MHNIP model because it allows them to occupy a senior clinical position with flexible hours but also has a degree of autonomy and independence.

Detailed finding #12: barriers to program entry for mental health nurses include the requirement for credentialing and the associated processes, and perceptions that remuneration was relatively low compared to what was available in public sector positions.

Detailed finding #13: there was evidence that a number of eligible organisations ceased their involvement in MHNIP due to concerns about insufficient funding and difficulty in recruiting a mental health nurse.

Detailed finding #14: there is scope for ensuring greater consistency in processes of patient care by strengthening the *Program Guidelines* and enhancing clinical governance requirements.

Detailed finding #15: the majority of medical practitioners select patients to participate in the MHNIP based on the criteria specified in the *Program Guidelines*.

Detailed finding #16: there was evidence that MHNIP organisations are completing GP mental health care plans for patients. However, there is also evidence that not all plans are completed in a way that conforms with all the requirements of the MBS item.

Detailed finding #17: there was anecdotal evidence that MHNIP patients received treatment over a period between 12 to 24 months.

Detailed finding #18: scope exists to strengthen clinical governance arrangements to improve the quality of services by providing resources and tools to support: improved case management processes; more systematic approaches to risk management; patient and carer complaint mechanisms; and more uniform access to the program at a population level within a particular geography.

Detailed finding #19: there was evidence of increased participation in voluntary work by MHNIP patients.

Detailed finding #20: MHNIP guidelines are easily accessible and have been used by the majority of medical practitioners and mental health nurses however some suggestions were made regarding improving the guidelines.

Detailed finding #21: MHNIP has enabled an expansion in the roles and responsibilities of mental health nurses in the primary health sector.

Detailed finding #22: the establishment payment was considered appropriate in terms of size and application process.

Detailed finding # 23: MHNIP organisations are unhappy with the current claims process for sessional payments, suggesting it needs reengineering.

Detailed finding # 24: participating MHNIP organisations no longer view the sessional fee as an incentive for involvement in the program

Detailed finding # 25: medical practitioners take responsibility for assessing patient eligibility for MHNIP treatment.

Detailed finding # 26: there was some evidence of variability in mean HoNOS scores on patient entry to the program, suggesting there is scope for promoting a more consistent approach to assessing eligibility across sites. Clinical governance processes, including cross-site case review processes, could be used to promote this greater uniformity.

Detailed finding #27: the majority of mental health nurses comply with the employment conditions in the *Guidelines* around the maximum number of sessions per week.

Detailed finding #28: consideration could be given to expanding the current mental health nurse employment conditions allowing them to provide greater than 10 sessions per week to enable eligible organisations to offer MHNIP services out of hours and on weekends.

Detailed finding #29: mental health nurses comply with caseload requirement of at least two individual services to patients per session.

Detailed finding #30: compliance around completing the claim form could be improved to capture data on all mental health nurse patient activity.

Detailed finding #31: mental health nurses are meeting the compliance requirements relating to the minimum caseload (number of individual patients) per week and over the year.

Detailed finding #32: mental health nurses are, on average, allocating 25 hours per week to clinical contact, consistent with the requirements of the *Program Guidelines.*

Commentary supporting these findings is provided in the remainder of the chapter.

5.3 PROGRAM UPTAKE

Analysis of the program uptake reviewed barriers to patient entry, drivers for participation of eligible organisations and mental health nurses, barriers to participation encountered by eligible organisations and mental health nurses, and reasons that registered organisations failed to commence or ceased involvement in MHNIP.

5.3.1 Patient barriers to entry

Stakeholders advised that MHNIP supported patient participation through a variety of mechanisms, including access to free treatment by the mental health nurse, home visits (by some organisations), non-threatening treatment environments, and the clinic setting reduced the stigma of mental health. Nevertheless, they saw a range of barriers to program

participation. The top five reasons acting as barriers to patient participation identified by medical practitioners are shown in Table 5.1.

Table 5.1: Client barriers for participation in MHNIP – the views of participating medical practitioners

Barriers to participation: major themes	No. of responses	% (n=191)
There are not enough mental health nurses	79	41
Stigma associated with mental illness and accessing mental health services	18	9
I am not aware of any barriers	18	9
Lack of awareness of the program and potential benefits	16	8
Patient may be unwilling to engage with additional health professionals for the management of their mental health condition	12	6

(Source: Survey of medical practitioners)

> *"Access is a barrier, as we have limited mental health nurse sessions, which results in waiting lists. Furthermore, suitability of appointment times is an issues as, whilst all patients are not working, they are busy with Centrelink issues, going to the chemist etc."*
> *GP, general practice, metropolitan Victoria*

Feedback from case study interviews with mental health nurses provided a different perspective on the barriers faced by patients, shown in Table 5.2. They said the most common patent barrier for accessing MHNIP was not having a GP or a regular GP.

> *"[MHNIP] patients need to have a GP and some do not trust doctors."*
> *Mental health nurse, Medicare Local, rural Victoria*

Table 5.2: Patient barriers to participating in the MHNIP– the views of participating mental health nurses

Patient barriers (themes)	No. of responses	% (n= 28)
Patients without a GP, or a regular GP	8	28.6
Program scope eg need for a mental health care plan	7	25.0
Stigma attached to mental heath	6	21.4
Mental health nurse capacity (access)	4	14.3
Transport	4	14.3

(Source: case study interviews with mental health nurses)

The findings described in the two tables above roughly fall into two broad categories. Firstly, patient characteristics, such as not having a GP or stigma attached to having mental health problems. Secondly, the nature of the MHNIP program arrangements, which include the availability of mental health nurses and a lack of awareness about the program.

Detailed finding #7: barriers to patient entry into MHNIP still exist relating to: (a) patient population characteristics, such as not having a GP or experiencing stigma associated with seeking treatment; and (b) characteristics of the program operations eg the lack of access to mental health nurses in some areas.

The mechanisms used to manage patient demand at case study sites are summarised in Table 5.3. This shows waiting lists are most commonly used. The *other* category contained a range of isolated responses, such as provision of short term counselling and referrals to other external services.

Table 5.3: Mechanisms to manage patient demand for MHNIP services - the views of participating medical practitioners

Demand management approach	Medical practitioners		mental health nurse	
	No. of responses	%	No. of responses	%
Waiting list	22	46.8	16	37.2
Triage	13	27.7	7	16.3
Other eg provision of short term counselling	12	25.5	20	46.5
Total	**47**	**100**	**43**	**100**

(Source: survey of medical practitioners and mental health nurses)

Detailed finding #8: participating organisations are not able to treat all suitable patients under MHNIP and use waiting lists and triaging to manage excess patient demand.

5.3.2 Eligible organisations - drivers and barriers to participation in MHNIP

MHNIP is open to any eligible organisation that registers, using the processes described in Chapter 2. A principal of the organisations - generally a medical practitioner or the chief executive officer in the case of Medicare Locals – drove the decision to register and participate in MHNIP. Case study interviews found key drivers for participation included perceived needs of patients in the organisation's catchment area, and a close alignment of the MHNIP model with the existing multidisciplinary care provided by the organisation. ACMHN reported that mental health nurses have also assisted in promoting the program by explaining the program and its benefits to organisations. This has resulted in a number of these organisations joining the program.

"We run a GP practice near a housing commission with lots of state mental health services clients."

GP (principal), Medicare Local, metropolitan NSW

"We received information from Medicare about MHNIP. We investigated and it seemed a good fit to our clinic's multidisciplinary approach, and we needed a mental health nurse."

Psychiatrist (principal), private psychiatry practice, metropolitan Queensland

Detailed finding #9: eligible organisation's decision to participate in MHNIP was driven by perceived needs of the catchment area where they operate and the synergies of the MHNIP model with an organisation's existing approach to care, which was generally accepting of a multidisciplinary approach.

Case study organisations reported that MHNIP was relatively easy to manage from their perspective as a service provider. However, barriers to entry still existed for organisations, shown in Table 5.4. There was a range of other isolated barriers reported, not shown in this table. Examples of these included the need for the practice to be accredited, and the suspicion of the ongoing duration of MHNIP.

Table 5.4: Organisational barriers to MHNIP participation - the views of participating medical practitioners

Barriers	No. of responses	% (n=17)
Recruiting appropriate mental health nurses	7	41.2
Insufficient funding	6	35.3
Cash flow timing (on commencement)	3	17.6
Physical space	3	17.6

(Note: multiple responses were permissible; the sample represents the number of organisations;
Source: case study interviews of principals or CEOs

"Finding a mental health nurse initially was a barrier. The GPs too were initially concerned that the practice would have an increase in our mental health patient case load, which did not happen."

Executive Officer, general practice, metropolitan Queensland

"[There was a] financial barrier, as we had to cover the cash flow for first two months - the delay on sessional claiming."

GP (principal), general practice, metropolitan Western Australia

Detailed finding #10: barriers to entry into MHNIP for organisations included the need to recruit suitable mental health nurses, perceptions that subsidy levels were insufficient, and difficulties with cash flow management on commencing the program.

5.3.3 Mental health nurse drivers and barriers to participation in MHNIP

Mental health nurses consulted during the cast study process reported a number of driving forces for commencing work within MHNIP, shown in Table 5.5. The program design features were a key driver for engagement – the flexibility of working hours, and occupying a senior position that allowed them to use their clinical skills (equivalent seniority in the public sector requires a heavy involvement in management and administrative activities).

Table 5.5: Drivers to participate in MHNIP - the views of participating mental health nurses

Drivers	No. of responses	% (n= 29)
Attracted to MHNIP model	13	44.8
Career change or enhancement	8	27.6
To move out of acute sector	7	24.1
Increased independence	5	17.2

Note: multiple responses were permissible; the sample represents the number of mental health nurses interviewed
Source: case study interviews with mental health nurses

"With my qualifications and experience the program allows me to use all of my clinical skills. Otherwise [in the public sector], I would be a nurse unit manager or clinical nurse consultant and largely focussed on management, not clinical aspects."

Mental health nurse, general practice, metropolitan Queensland

Detailed finding #11: mental health nurses participating in the program were attracted to the MHNIP model because it allows them to occupy a senior clinical position with flexible hours but also has a degree of autonomy and independence.

Mental health nurses still reported barriers to their engagement Table 5.6 presents the most commonly reported barriers. Credentialing was seen as a necessary requirement for

participating mental health nurses but was still seen as a hurdle for becoming involved. There were also concerns about remuneration levels and entitlements in comparison to public sector positions.

Table 5.6: Barriers to nurse participation in MHNIP - the views of participating mental health nurses

Barriers reported	No. of responses	% (n= 29)
Credentialing	18	62.1
Lower remuneration or salary package and entitlements	16	55.2
Insufficient Funding	4	13.8
Loss of clinical / professional support	3	10.3
Autonomy / independence	3	10.3
Job security	3	10.3

Note: multiple responses were permissible; the sample represents the number of mental health nurses interviewed;
Source: case study interviews with mental health nurses

> *"Mental health nurses need experience and qualifications. Also, salary and entitlements are not as good as in the public sector. For example four weeks instead of six weeks annual leave and better access to professional development opportunities."*
> *Mental health nurse, Medicare Local, metropolitan Victoria*

These barriers fall into two categories. They reflect:

- the nature of the mental health role under the program, such as loss of clinical support and autonomy of practice (which some nurses may find confronting); and
- characteristics of the program arrangements, including the requirement for credentialing and lower remuneration compared to the public sector.

Detailed finding #12: barriers to program entry for mental health nurses include the requirement for credentialing and the associated processes, and perceptions that remuneration was relatively low compared to what was available in public sector positions.

5.3.4 Reasons eligible organisation cease to participate

Reasons why eligible organisations ceased their participation after initial registration was gauged by running an on-line survey. Seven organisations completed the survey. Table 5.7 shows financial reasons were the most common reason for an organisation to withdraw from the program, followed by difficulties in recruiting and retaining mental health nurses.

Table 5.7: Reasons eligible organisations ceased participation in MHNIP

Reason	No. of responses
Insufficient funding	5
Mental health nurse recruitment & retention	4
Difficulties with professional relationships	2
Total responses	**7**

Source: email survey of eligible organisations that ceased participation in MHNIP

Detailed finding #13: there was evidence that a number of eligible organisations ceased their involvement in MHNIP due to concerns about insufficient funding and difficulty in recruiting a mental health nurse.

Six of the seven organisations that responded to the email survey on reasons for withdrawal said they would reconsider participating in the program in the future. The main factors that would influence their reconsideration are given in Table 5.8.

Table 5.8: Factors that would influence an organisation to reconsider participation in MHNIP

Factors	No. of responses
Increase sessional payments	5
Mental health nurse recruitment & retention	4
Total responses	**7**

Source: email survey of eligible organisations that had ceased participation

5.4 PROCESS OF CARE

5.4.1 Patient pathway to MHNIP services

The case study process identified a common patient pathway to access MHNIP services. This was:

- a new patient was seen by the medical practitioner, triaged and referred to either MHNIP or another mental health program, such as ATAPS;
- in the case of MHNIP, the GP prepares a mental health care plan along with a referral to the mental health nurse;
- the patient makes an appointment with the mental health nurse where the care plan is reviewed, discussed and a treatment and support plan prepared;
- the mental health nurse provides a copy of the treatment and support plan to the medical practitioner; and
- the mental health nurse works with the patient according to the plan. Referrals are made to external programs and service providers as per the treatment plan.

Variations exist to this common pathway. These include:

- varying degrees of input by mental health nurse into the medical practitioner triaging decision of whether a patient is suitable for MHNIP;
- mental health nurse assistance in preparation of the mental health care plan; and
- the mental health nurse may have a first appointment with the patient on the day of presentation, to assist manage an immediate crisis.

> *"Mental health nurse can assist triage my patients, which helps my workload efficiency."*
> *Psychiatrist, private psychiatry practice, metropolitan Queensland*

Detailed finding #14: there is scope for ensuring greater consistency in processes of patient care by strengthening the *Program Guidelines* and enhancing clinical governance requirements.

5.4.2 Patient selection

Interviews with medical practitioners at 15 of the case study sites (88.2%) found that they selected patients for the program based on their high acuity and persistent mental illness, in accordance with the MHNIP *Program Guidelines* eligibility criteria.

> *"We follow the guidelines. Our mental health nurse sees the more severe cases. Most of our MHNIP patients have borderline personality disorders. They are the 'heart sink' patients [patients you don't want to see come through the door] that can't be cured, but can be kept out of hospital."*
> *GP, general practice, metropolitan Queensland*

One organisation indicated the MHNIP eligibility criteria were included on their MHNIP referral form.

Patient eligibility criteria in the *Program Guidelines* contain a range of factors, one of which is a hospital admission related to their mental health. Case study findings from patients interviewed in relation to hospital admissions found that over 60% had been admitted for their mental health illness at some time in their past treatment history. This is discussed further in Section 5.6.

Detailed finding #15: the majority of medical practitioners select patients to participate in the MHNIP based on the criteria specified in the *Program Guidelines*.

There were signs that the level of mental illness that eligible medical practitioners consider *severe and persistent* varies across services. Section 5.10, *Compliance Controls* examines this evidence.

5.4.3 Care plans

The program guidelines contain the following requirement for care plans:

> *"In collaboration with the mental health nurse, a GP Mental Health Care Plan must be developed by general practitioners or an equivalent plan must be developed by psychiatrists."*
>
> and
>
> *"The steps in preparing a GP Mental Health Care Plan are the same as those defined in Item 2710 of the Medicare Benefits Schedule for GP Mental Health care items."*

The evaluation reviewed a sample of eleven care plans from five case study sites. This was not a formal audit of the care planning process, but a high level review of whether organisations were developing and using the GP Mental Health Care Plan (MBS Item 2710) as required by the *Program Guidelines*. Key findings were:

- none of the care plans demonstrated compliance against all specified criteria for MBS item 2710;
- all care plans included a record of medications;
- five of eleven met the criteria for patient agreement;
- two of the eleven care plans did not have mental health assessments provided;
- four assessments either did not have a patient signature or there was no place for this on the care plan;
- four of the eleven conducted a mental state examination;
- none contained evidence of the use of any formal outcome measure;
- one addressed risk assessment/ crisis planning/suicide risk;
- half of the care plans had identified goals (of varying quality, for example some had just one, word such as 'maintenance');and
- there was substantial variation in the reporting of the roles and responsibilities for the mental health nurse and the medical practitioner in the mental health care plan. The level of specificity was largely site dependent as there was no template document.

The care plans that used a template form generally had higher adherence to the required MBS item care plan components. Improved consistency could be achieved by providing a template form and content for development of care plans at all participating organisations.

Detailed finding #16: there was evidence that MHNIP organisations are completing GP mental health care plans for patients. However, there is also evidence that not all plans are completed in a way that conforms with all the requirements of the MBS item.

5.4.4 MHNIP treatment duration

The length of time over which MHNIP patients received treatment was not specifically addressed during the evaluation. Analysis of DHS data should be able to determine the treatment duration using the patient unique identifier, although this could not be performed during the project as there were concerns over the accuracy of DHS patient level data.

A small amount of anecdotal evidence was obtained during case study interviews with MHNIP patients and mental health nurses. Patients interviewed generally talked about their experiences over the past 12 to 18 months.

Mental health nurses described the patient treatment journey, indicating that initially contact was frequent and face- to-face, say weekly or fortnightly. As the patient's condition improved, the frequency of visits reduced, often to monthly and supported by telephone contact as needed. Towards the end of the patient's support under MHNIP treatment, the frequency was 3-monthly plus supported by telephone contact. It was also noted that patients often fluctuate along this pathway, it was not a steady reduction in contact frequency. By the time the patient was ready to exit, between 18 months and two years could have elapsed. This varied case by case.

Detailed finding #17: there was anecdotal evidence that MHNIP patients received treatment over a period between 12 to 24 months.

5.5 CLINICAL GOVERNANCE

Clinical governance is the term used to describe a systematic approach to maintaining and improving the quality of patient care within a clinical care setting, health program or health system. It is about the ability to produce effective change so that high quality care is achieved. It requires clinicians and administrators to take joint responsibility for making sure this occurs.[20] A clinical governance framework for MHNIP would have the ability to solidify the roles and responsibilities of the mental health nurse and medical practitioner. Self-employed mental health nurses do not have any obvious clinical supervision.

The MHNIP *Program Guidelines* do not specifically mention clinical governance. However, there is a range of requirements in the *Guidelines* that relate to clinical governance type activities such as the need for:

> *"clear lines of clinical accountability (specified in writing), including the responsibilities of the mental health nurse and participating medical practitioner."*

While the MHNIP *Guidelines* do not require that organisations, mental health nurses and medical practitioners establish formal clinical governance arrangements, strengthening them has the potential to improve the quality of services and their processes. Case study sites did not report the existence of any formal clinical governance arrangements. The most common activities respondents provided in relation to clinical governance type activities included:

- sharing of patient records / notes between medical practitioners and mental health nurses;

- regular case conferencing (weekly or more frequently) of a sample of all patients managed under MHNIP;
- regular review of care plans;
- medical practitioner's regular review of their MHNIP patients during appointments for medication management and other physical care needs;
- formal (specific to a patient need) and informal (opportunistic, eg during lunch) discussion about specific cases between medical practitioners and mental health nurses; and
- existence of a written 'scope of practice' document that guides what the mental health nurse can and cannot do regarding treatment and support.

A comparison of the clinical governance arrangements observed during the evaluation has been made against the *Access to Allied Psychological Services* (ATAPS) *Clinical Governance Framewor*k. The detailed comparison is shown in Appendix C.

The ATAPS framework may not be completely relevant, given a broader scope of eligible organisations under MHNIP than ATAPS (ie only Medicare Locals). Nevertheless, the analysis revealed the potential for improvement in the type of clinical governance arrangements and key resources that could be considered for MHNIP.

Detailed finding #18: scope exists to strengthen clinical governance arrangements to improve the quality of services by providing resources and tools to support: improved case management processes; more systematic approaches to risk management; patient and carer complaint mechanisms; and more uniform access to the program at a population level within a particular geography.

5.6 PATIENT OUTCOMES

The evaluation assessed the impact of MHNIP on patient outcomes in terms of changes in HoNOS measures, hospital admissions, employment activity participation, involvement in social and educational activities, and changes in the income security status of the carer. The case studies found that MHNIP generally had a very positive impact on patient outcomes.

5.6.1 Benefits for MHNIP patients

There was strong support for the view that MHNIP has been beneficial for supporting patients with a severe and persistent mental illness. Table 5.9 shows over 96% of medical practitioners and 98% of mental health nurses who responded to the participant survey *strongly agreed* or *agreed* that MHNIP had contributed to improvements in care for people with severe mental illness.

Table 5.9: View of whether MHNIP has contributed to improvements in care for people with severe mental illness the views of participating medical practitioners and mental health nurses

Response	Medical practitioners		Mental health nurse	
	No. of responses	%	No. of responses	%
Strongly agree	137	71.7	221	85.7
Agree	46	24.1	33	12.8
Neither agree nor disagree	6	3.1	3	1.2
Disagree	1	0.5	1	0.4
Strongly disagree	1	0.5	0	0.0
Total	**191**	**100**	**258**	**100**

Source: survey of medical practitioners and mental health nurses

> *"Benefits to patients have been decreased hospitalisations and decreased suicide attempts / ideation."*
>
> *GP, Medicare Local, metropolitan Victoria*

The top five benefits for patients through their involvement in MHNIP were reported as being:

- increased level of care / continuity of care / follow up;
- patients are able to access care in a much more timely manner;
- improved patient outcomes;
- increasing compliance with treatment plan, including medication compliance; and
- keeping patients out of hospital.

Table 5.10 shows the relative significance of these benefits as reported by medical practitioners in their survey responses.

Table 5.10: Top five themes of the benefits of the MHNIP for patients - the views of participating medical practitioners

Response theme	No. of responses	% (n=191)
Increased level of care / continuity of care / follow up	135	70.7
Patients are able to access care in a much more timely manner	36	18.8
Improved patient outcomes	31	16.2
Increasing compliance with treatment plan, including medication compliance	25	13.1
Keeping patients out of hospital	22	11.5

Note: respondents feedback was often categorised into more than one theme, therefore the total number of responses is greater than the total sample number of respondents
Source: survey of medical practitioners

> *"[MHNIP offers] clinical benefits to patients. There was also a positive impact on families. Patients are now accessing care they previously were not able to receive from their GP, they were falling through gaps."*
>
> *GP, metropolitan general practice, Queensland*

The evaluation report has previously observed that a key feature of the MHNIP design is the uncapped access of patients to support from the mental health nurse. Many of the patient benefits identified by medical practitioners are the enabled by that program design feature.

Key Finding 9: patients being supported under MHNIP are benefitting from improved levels of care as a result of greater continuity of care, greater follow-up, timely access to support and increased compliance with treatment plans.

5.6.2 Changes in HoNOS scores

Mental health nurses at case study sites advised that patient HoNOS scores often fluctuate during the course of their treatment. Nevertheless, in their view HoNOS scores generally decreased between entry and exit from the program. This perception was tested in the cost analysis (detailed in Chapter 6 and Appendix E).

HoNOS scores were received from only 87 of the 267 patients included in the cost analysis on both entry to MHNIP and at 12 months later. Table 5.11 shows HoNOS scores fell from an average of 13.7 on entry to MHNIP, to 10.1 at the end of the first 12 months of MHNIP treatment. Personality disorders recorded the largest decrease in aggregate HoNOS scores (15.5 to 9.0; n=4), followed by mood disorders (14.2 to 10.6; n=52).

Table 5.11: HoNOS scores for patients included in MHNIP cost analysis[a]

Disorder	HoNOS			
	Number of Patient	Mean score		
		On entry	At 12 months	Change
Anxiety Disorders	11	12.4	9.3	3.1
Mood Disorders	52	14.2	10.6	3.6
Personality Disorders	4	15.5	9.0	6.5
Psychotic Disorders	19	11.8	9.5	2.3
Unknown	1	26.00	11.0	15.0
Total/mean	**87**	**13.7**	**10.1**	**3.6**

Source: HMA case study cost analysis

(a) HMA collected similar data from a 464 patients at case study sites. This larger sample showed similar downward trends. They have not been reported here because they were not able to have the same level of data cleansing applied as for the cost analysis data subset. There were large data gaps for the reporting of HoNOS scores, which contributed to the small sample size.

Key Finding 10: examination of a sample of MHNIP patients in the evaluation cost analysis showed a downward trend in their HoNOS scores, a measure of mental health and social functioning. This statistically validates qualitative perceptions that the treatment and support provided by mental health nurses improves the mental health and wellbeing of patients receiving support under the program.

The evaluation compared the HoNOS score of MHNIP program recipients with those patients receiving support from state and territory mental health services. We used the Australian Mental Health Outcomes and Classification Network web decision support tool to extract this information for three mental health care episode types: inpatient, ambulatory and residential care. Table 5.12 contains the mean total HoNOS for all mental health diagnoses, nationally for the adult population.

Table 5.12: Mean HoNOS in state and territory mental health services, 2008-2011, compared to MHNIP experience

Collection setting	Mean HoNOS score on:		Change in Mean Score
	Admission	Discharge	
Inpatient	14.1	6.5	-7.6
Residential	11.7	10.2	-1.5
Ambulatory	11.7	7.8	-3.9
MHNIP evaluation cost analysis findings	13.7	10.1	-3.6

(Source: Australian Mental Health Outcomes and Classification Network, web decision support tool)

The HoNOS measures are lower than the MHNIP sample discussed above, further affirmation that the program is providing support to a group of patients with severe and persistent mental illness.

Key Finding 11: **based on an examination of a sample of MHNIP patients,** the HoNOS score of patients using state and territory mental health services were on average at similar levels to the scores of MHNIP patients, affirming that the program is providing support to people with serious levels of mental illness.

5.6.3 Reduced hospital admissions

Case study patients and representatives from MHNIP participating services reported that the program was effective in reducing *unnecessary* hospital admissions. Case study patients interviewed described a noticeable reduction in frequency of admission patterns since engaging with their mental health nurse. Table 5.13 shows over 60% of all case study patients interviewed (44 of 72 patients) had been admitted for their mental illness (at anytime in the past). Over the last 12 months prior to the conduct of the case studies, 25% of those patients with a previous admission (11 of 44 patients) had another mental health related hospital admission. This finding should be interpreted with caution as the figures for *number of people who have had a hospital admission for their mental illness* refer to occurrences that may have happened at any time of the person's life before participating in MHNIP.

Table 5.13: Patient hospitalisation - experience of patients in case study site survey

Finding	No. of responses	% (n=72)
Has had a hospital admission for their mental health illness (*at anytime*)	44	61.1
Had an admission in last 12 months, related to their mental health illness	11	15.3

(Source: case study interviews with MHNIP patients)

> *"Yes, [I have been admitted to hospital in relation to my mental health illness] over 20 times. However, I have not been admitted over the last 12 months."*
> *Patient, general practice, metropolitan Queensland*
>
> *"Seeing the mental health nurse has stopped me from killing myself"*
> *Patient, Medicare Local, metropolitan Victoria*

Clinicians strongly felt that MHNIP had reduced unnecessary hospital admissions or readmission. Table 5.14 reveals over 91% of medical practitioners and 98% of mental health nurses either *strongly agreed* or *agreed* with this view.

Table 5.14: Assessment of whether MHNIP had reduced unnecessary hospital admissions and readmissions – view of medical practitioners and mental health nurses

Response	Medical practitioners		Mental health nurses	
	No. of responses	%	No. of responses	%
Strongly agree	108	56.8	208	80.6
Agree	66	34.7	47	18.2
Neither agree nor disagree	12	6.3	3	1.2
Disagree	3	1.6	0	0.0
Strongly disagree	1	0.5	0	0.0
Total	**190**	**100**	**258**	**100**

Source: survey of medical practitioners and mental health nurses

> *"[MHNIP has been effective in] decreasing [hospital] admissions and length of stay if a patient was admitted."*
>
> *Psychiatrist, private psychiatry practice , metropolitan NSW*

Reference to the term *unnecessary admission* above acknowledges that in some cases MHNIP involvement lead to new hospital admissions. Such treatment was beneficial for the patient where it facilitated clinical stabilisation of a new medicine regimen or involved management of mental health issues and other comorbidities.

> *"M [the mental health nurse] made an appointment for me to see Dr A [the public hospital psychiatrist]. I wanted to take all my tablets"*
>
> *Patient, AMS, regional NSW*

The cost analysis assessment of MHNIP (see Chapter 6 and Attachment B) supported the perceptions of clinicians that MHNIP had a significant impact on admissions. The number of hospitalisations experienced by the sample of 267 cost analysis patients and their associated length of stay is summarised in Table 5.15 below. Mood disorders, including depression and bipolar disorder, were the most prevalent in our patient sample with roughly two-thirds of all patients (66.3%; n=177) having this as their primary mental health diagnosis. Psychotic disorders, such as schizophrenia and schizoaffective disorder were the second most prevalent in our patient sample (14.2%n; n=38), closely followed by anxiety disorders (12.4%; n=33).

Overall, the number of hospitalisations fell in the 12 months following entry to MHNIP compared to the 12 months prior to patients entering the program, from 34 admissions down to 30 admissions (-13.3%). This was not the case for mood disorders. While the total number of hospitalisations and total length of stay reduced for those patients whose primary mental health diagnosis was depression, a small number of patients with bipolar disorder experienced a significantly longer length of stay, resulting in a net increase in admissions for mood disorders from 18 prior to engagement in MHNIP to 20 admission post MHNIP involvement.

Psychotic disorders showed the most significant reduction in length of stay in acute settings, with six hospitalisations in the 12 months prior to joining MHNIP (length of stay = 756) and only one hospitalisation in the 12 months following entry to MHNIP (length of stay = 21).

For the same sample of patients, when they were admitted to hospital following their engagement in MHNIP there was a reduction in their total number of admission days by 58% and the average length of stay fell from 37.2 days to 17.7 days.

Table 5.15: Hospitalisations, Length of Stay and HoNOS scores 12 months prior to entry to MHNIP and 12 months after entry

Disorder	No. of Case Study Patients	No of hospitalisations			Total length of stay		
		12 months prior	12 months post MHNIP	% Change	12 months prior	12 months post MHNIP	% Change
Anxiety Disorders	33	9	8	-11.1	110	75	-31.8
Mood Disorders	177	18	20	10.0	384	426	10.9
Personality Disorders	9	1	1	0.0	16	10	-37.5
Psychotic Disorders	38	6	1	-83.3	756	21	-97.2
Other	7	0	0	0.0	0	0	0.0
Unknown	3	0	0	0.0	0	0	0.0
Totals	**267**	**34**	**30**	**-13.3**	**1,266**	**532**	**-58.0**
Average length of stay					**37.2 days**	**17.7 days**	**-52.4**

Source: HMA case study cost analysis

Key Finding 12: quantitative evaluation evidence showed overall mental health hospital admissions decreased by 13.3% for a sample of MHNIP patients in the 12 months following their involvement in the program. This was not true for all conditions: bipolar disorders showed a slight increase in the number of admissions.

Key Finding 13: for the same sample of patients, when they were admitted to hospital following their engagement in MHNIP there was on average a reduction in their total number of admission days by 58% and the average length of stay fell from 37.2 days to 17.7 days.

Further analysis is required to explain why this reduction in the average length of stay occurred (this trend only became obvious during the data analysis phase of the evaluation). It may be that clinicians managing MHNIP patients admitted to hospital were more comfortable allowing a discharge when they knew the patient was returning to the care of a mental health nurse working under the supervision of a medical practitioner.

5.6.4 Increased employment participation

The evaluation identified only minor improvements in employment participation of MHNIP patients. Whilst some MHNIP patients employed prior to treatment under MHNIP and remained employed, other patients who were unemployed remained so. Many of the patients interviewed during the case studies said that they were on a disability pension prior to their admission to the program and remained on that pension during their treatment. Table 5.16 demonstrates that almost 60% of case study patients reported no change in their employment status. Almost 20% reported finding employment and a further 12% became involved in volunteer work whilst receiving treatment under MHNIP. A small proportion also reported starting or returning to study.

Table 5.16: Change in employment of MHNIP case study patients

Category	No. of responses	% (n=72)
No change	42	58.3
Obtained full-time or part-time time work	14	19.4
Now volunteering	9	12.5
Started or returned to study	5	6.9
No response	4	5.6

***Note**: respondents feedback was often categorised into more than one theme, therefore the total number of responses is greater than the total sample number of respondents*
***Source**: case study interview of MHNIP patients.*

"No, I'm still on worker's compensation. My goal is to go back to work, but maybe not the same place."

Patient, general practice, rural Queensland

"I started work 18 months ago. I would have lost this job too if not for the mental health nurse."

Patient, private psychiatry practice, metropolitan Queensland

Mental health nurses interviewed during the case studies suggested the reason for the small improvement in employment participation was due to several factors:

- moving from a disability pension to fulltime employment was seen as a big step and if the patient relapsed, recommencing on a disability pension would be difficult especially during a time of relapse. Therefore, MHNIP patients often were not ready to change or only looked for part-time work at levels that would allow them to retain their disability pension status; and
- the severity of patient's mental illness could make it difficult to ever return to the workforce.

The medical practitioner survey sought views of the impact MHNIP had on employment participation. Medical practitioners were asked to estimate the proportion of patients employed prior to entry and on exit from MHNIP. Table 5.17 shows the results of the 60 respondents (31% of the sample) that provided both an entry and exit estimate. It suggests MHNIP has had a positive impact on employment participation.

Table 5.17 MHNIP impact on employment participation - the views of participating medical practitioners

Outcome	No. of responses	%
Improvement	43	71.7
Detriment	3	5.0
No change	14	23.3
Total	**60**	**100**

Source: medical practitioner survey

Key Finding 14: there was some evidence of increased patient employment by MHNIP patients.

The evidence above shows that some MHNIP patients had commenced volunteer work for various organisations, such as the local hospital. This activity allowed patients to explore working environments in relative safety which did not impact on their pension entitlements.

Detailed finding #19: There was evidence of increased participation in voluntary work by MHNIP patients.

5.6.5 Involvement in social and/or educational activities

A large proportion of both medical practitioners and mental health nurses (measured as *strongly agreed* or *agreed* that MHNIP had assisted people to feel well and connected with their community. Table 5.17 indicates that over 95% of medical practitioners and over 97% of mental health nurses shared this view.

Table 5.18: Impact of MHNIP in assisting people to feel well and connected with their community - the views of participating medical practitioners and mental health nurses

Response	Medical practitioners		mental health nurse	
	No. of responses	%	No. of responses	%
Strongly agree	115	60.5	207	80.2
Agree	66	34.7	44	17.1
Neither agree nor disagree	5	2.6	4	1.6
Disagree	3	1.6	1	0.4
Strongly disagree	1	0.5	2	0.8
Total	**190**	**100**	**258**	**100**

(Source: survey of medical practitioners and mental health nurses)

> *"[MHNIP] gives patient's confidence that they have a connection - someone to trust and who is helping"*
>
> *Psychiatrist, private psychiatry practice, metropolitan New South Wales*
>
> *"[MHNIP] increases their capacity to function in the community, decreases their anxiety and gets them socially connected."*
>
> *GP, Medicare Local, rural Victoria*

During the case studies mental health nurses and patients consistently reported increased levels of involvement in social and educational activities resulting from MHNIP treatment and support. This included:

- attending community social programs, such as the Men's Sheds;
- becoming involved in other activities, such as a choir;
- returning to part-time or full-time studies, after a break and commencing new studies; and
- undertaking short education courses, such as computing.

Key Finding 15: MHNIP has encouraged and facilitated patient's increased involvement in social and educational activities.

Case study organisations often advised that some of the patients interviewed during the evaluation have progressed, demonstrated by their newly found capacity to sit in the room for discussion with an evaluation interviewer. Being able to gather their thoughts and articulate responses to questions was a demonstration their improved wellbeing as a result of MHNIP treatment and support.

5.6.6 Other changes

Impact on carers

The case study component of the evaluation interviewed a small sample of patients (n= 66) and, in some instances, their carers (n = 6). The questions sought to identify changes in the status of MHNIP patient's carers over time resulting from the treatment and support received by the patient. The results as shown in Table 5.19 for patients with a carer (n=26). The majority reported no change. However, a small number reported significant positive impacts

on their carers, namely them no longer requiring the same level of support for the patient, or being able to go back to work.

Table 5.19: MHNIP impact on carer status – the views of case study patients

Status change	No. of responses	% (n=26)
No change	22	84.6
Carer no longer required	4	15.4
Carer increased work participation	2	7.7

(Note: respondents feedback was often categorised into more than one theme, therefore the total number of responses is greater than the total sample number of respondents
Source: case study patients)

> *"My husband has been my carer for years, but due to the mental health nurse [and my improvement] he has been able to return to fulltime work. I did not get out of bed in the first week that he returned to work. But look at me now, I am able to be here talking to you."*
> *Patient, general practice, metropolitan Queensland*

In addition, some mental health nurses said that the MHNIP involvement lead to appropriate support (eg connection with Carers Support groups) and care for their own mental health needs.

Key Finding 16: MHNIP has had positive flow on benefits to some carers of MHNIP patients.

Other impacts

Case studies sought to identify a range of other impacts on patients as a result of their mental health nurse interaction. A small sample of patients responded (n=35), which identified five other positive improvements. The three most common impacts are contained in Table 5.20, which shows *improved family interactions, reducing ED presentations* and *managing drug and alcohol issues* being most prevalent. The other two minor improvements were *finding appropriate housing* and *improved physical health*.

Table 5.20: Other impacts on MHNIP patients – the views of case study patients

Other improvements	No. of responses	% (n=35)
Improved family interactions	19	54.3
Reduced emergency department presentations	13	37.1
Managing drug and alcohol issues	8	22.9

Note: respondent's feedback was often categorised into more than one theme, therefore the total number of responses is greater than the total sample number of respondents
Source: case study patients

Key Finding 17: MHNIP has had other positive impacts on patients, including improved family interactions and reductions in the number of emergency department presentations.

5.7 PROGRAM REGISTRATION AND GUIDELINES

5.7.1 Registration process

The practice manager, program manager, or finance manager (in the case of Medicare Locals) mainly performed the registration process. None of these respondents reported problems with the registration process.

Medical practitioners were asked for their views on the registration process. The results in Table 5.21 showed over 70% were *very satisfied* or *satisfied* with the registration process.

Table 5.21: Medical practitioner views of the MHNIP registration process - the views of participating medical practitioners

Response	No. of responses	%
Very satisfied	61	29.2
Satisfied	92	44.0
Neither satisfied nor dissatisfied	49	23.4
Dissatisfied	3	1.4
Very dissatisfied	4	1.9
Total	**209**	**100**

Source: medical practitioner survey

Suggested improvements by medical practitioners are given in Table 5.22.

Table 5.22: Improvements to registration process - the views of participating medical practitioners

Major Theme	No. of responses	%
The process needs to be simplified (e.g. by making the process electronic)	21	41.2
I was not involved in this process	10	19.6
I am unsure	8	15.7
Organisations should be advised of the outcome of their application within a shorter period of time	6	11.8
Response not related to the registration process	5	9.8
Requirements relating to the level of training for either mental health nurse and medical practitioners are excessive	2	3.9
The skills of the people to be involved in the program should be more closely evaluated	1	2.0
Total respondents	***51***	

Note: the total number of responses may be greater than the total number of responses, as respondents may have indicated more than one theme
Source: survey of medical practitioners

5.7.2 Program guidelines

The *Program Guidelines* were reported to be easily accessible by the majority of medical practitioners (68.4%) and mental health nurses (89.6%) surveyed. 22.8% of medical practitioners and 1.4% of mental health nurse respondents had not seen or accessed the guidelines.

Detailed finding #20: MHNIP guidelines are easily accessible and have been used by the majority of medical practitioners and mental health nurses, however some suggestions were made regarding improving the guidelines.

Views on scope for improving the *Guidelines* varied. The majority of medical practitioners indicated *no* (65.1%). However, 57.8% of mental health nurse suggested improvements were possible in the following areas:

- allowing the mental health nurse to become the eligible organisation, with medical practitioners being able to refer directly to them;
- clearer descriptions of services that can be provided;
- clearer descriptions of the reporting requirements;
- providing more specific information in the form of examples, as the current guidelines are open to interpretation;

- less jargon;
- include patients who may not meet the entry criteria or are less severe, but could benefit from a brief intervention as a preventative measure; and
- the role, expertise and duties that mental health nurses provide under MHNIP is too restrictive. In practice, mental health nurses can provide services above and beyond what is outlined in the program guidelines. The guidelines should reflect this to ensure the best outcome for patients.

5.8 WORKFORCE

5.8.1 Impacts on medical practitioners

An anticipated flow-on effect of the MHNIP was that it would:

> *.....help alleviate pressure on privately practicing psychiatrists and GPs, allowing them increased time to see more patients and deal with patients with complex health care needs.....*[21]

There was consensus amongst medical practitioners surveyed that MHNIP increased their time to see patients and deal with more complex health care needs. Table 5.23 shows almost 90% supported *strongly agreed* or *agreed* with this statement.

Table 5.23: Assessing impact of MHNIP on medical practitioner's time to see patients and deal with complex health care needs - the views of participating medical practitioners

Response	No. of responses	%
Strongly agree	109	57.1
Agree	59	30.9
Neither agree not disagree	14	7.3
Disagree	3	1.6
Strongly disagree	6	3.1
Total	**191**	**100**

(Source: medical practitioner survey)

> *"[MHNIP] enables me to see more patients. When the mental health nurse goes on leave I can't get home until two or more hours later"*
>
> *GP, Medicare Local, rural Victoria*

The impact of MHNIP on medical practitioner workload reported during case study interviews revealed similar sentiments. Other benefits for medical practitioner included:

- improved efficiency of their patient throughput;
- reduced stress levels; and
- increased confidence to manage patients with a severe mental illness and their medications.

Key Finding 18: MHNIP has had a positive impact on medical practitioner workloads by increasing their time available to treat other patients and improve patient throughput.

5.8.2 Impact on mental health nurse role and career structure

Another anticipated flow-on effect of MHNIP was that it would:

...expand the roles and responsibilities for community based mental health nurses....[21]

The majority of mental health nurses in their survey responses reported that the MHNIP had expanded their role and responsibility. Table 5.24 reveals over 90% either *strongly agreed* or *agreed* with this view.

Table 5.24: Mental health nurse view of whether MHNIP had expanded their role and responsibility - the views of participating mental health nurses

Response	No. of responses	%
Strongly agree	157	58.6
Agree	86	32.1
Neither agree nor disagree	22	8.2
Disagree	2	0.7
Strongly disagree	1	0.4
Total	**268**	**100**

Source: mental health nurse survey)

The survey also sought mental health nurse views on whether MHNIP had created an alternative career structure in the primary care sector. This view was supported by 84.0% of respondents.

"[MHNIP provides] greater autonomy and flexibility that employment in the public sector cannot offer for mental health nurses"
Mental health nurse, private psychiatry practice, rural New South Wales

"A MHNIP mental health nurse position is something to aspire to. It's not for a new practitioner. You need credentialing, experience and confidence in your practice. It is good for clinical work, not a management position. Not good for people looking to further their career as there is no where for growth."
Mental health nurse, general practice, metropolitan Queensland

Detailed finding #21: MHNIP has enabled an expansion in the roles and responsibilities of mental health nurses in the primary health sector.

5.9 PAYMENT STRUCTURE

5.9.1 Establishment payment

Organisations were comfortable with the process for claiming the establishment payment. They considered the payment useful and deployed it in a variety of ways, such as:

- furnishing an office space for the mental health nurse, including computers and phones;
- covering cash flow at commencement, as there is a time lag between starting service delivery and receiving the first sessional payment; and
- developing policies and process to govern MHNIP activities.

Case study organisations did not raise any concerns around the rules governing the allocation of whether they received $5,000 or $10,000.

Detailed finding #22: the establishment payment was considered appropriate in terms of size and application process.

There was also minor feedback that infrastructure purchased using the establishment payment needs to be replaced over time. For example, organisations that have been participating since commencement of MHNIP have already replaced computers, but there is no process for recovering such an expense.

5.9.2 Sessional payment

Case study organisations consistently reported issues around the claims process for sessional payments and the sessional payment amount.

(1) **Process.** Claim forms must either be faxed or posted to DHS. Organisations had concerns with this process:

- this is old technology, whilst all other dealings with DHS are online;
- faxing a large quantity of claim forms at once can result in the recipient running out of paper, being engaged for extended time periods, or paper jams;
- rejections are often difficult to follow up as DHS tends to post them back to an organisation, resulting in long time lags before processing actually occurred.

Detailed finding # 23: MHNIP organisations are unhappy with the current claims process for sessional payments, suggesting it needs reengineering.

(2) **Fee size.** The fee level for sessional payments has not changed since the commencement of MHNIP in July 2007. Organisations that have been participating for a number of years strongly advised that the fee level no longer provided an *incentive* to participate in the program. The lack of indexation means organisations have experienced a real decrease in the sessional fee value and mental health nurse salaries have increased over time.

The impact of indexing the sessional fee since commencement is shown in Table 5.25. It reveals the differential between the current fee ($240) and the indexed fee for 2012-13 ($276) would be 15%.

Table 5.25: Impact of CPI indexing on sessional fee

Year	CPI[a]	Resulting fee
2007-08	3.4	$240
2008-09	3.1	$248
2009-10	2.3	$256
2010-11	3.1	$262
2011-12	2.3	$270
2012-13	na	$276

(a) ABS, CPI weighted average for six state capitals

Some sites also suggested that other recent changes to the MBS fee structure for mental health management plans have also reduced the overall income associated with management of eligible MHNIP patients. It is now more difficult to cross subsidise the true cost of MHNIP through other income generating activities.

Detailed finding # 24: participating MHNIP organisations no longer view the sessional fee as an incentive for involvement in the program.

Indicative analysis of the sessional fee size is presented below in relation to mental health nurse salaries. The evaluation did not collect remuneration details or arrangements for individual MHNIP nurses, although salary figures have previously been collected by ACMHN. Financial models developed as part of a MHNIP feasibility study by General Practice Queensland also provide useful commentary on the financial arrangements on both employing and engaging mental health nurses on a full-time basis.

Employed Mental Health Nurses

ACMHN report that the hourly rate earned by a mental health nurse is influenced by whether the nurse is employed or engaged under contract, and what conditions they have been able to negotiate with the eligible organisation.

ACMHN indicated that feedback received from nurses who are *employed* by eligible organisations receive *on average* $35 - $45 per hour. In some cases mental health nursess may only be paid for the time that forms part of sessions, which means that they are restricted to working a maximum of 35 hours per week. In this case, a mental health nurse who works full time (35 hours a week) and takes 4 weeks leave (ie annual, sick or education) in addition to two weeks of public holidays, will receive a gross annual salary between $56,350 and $72,450. This figure does not include a provision for professional development. Where the mental health nurse is paid a salary, with four weeks of leave included (ie annual, sick or education), an indicative yearly salary (37.5 hours per week) would increase to $68,250 - $87,750.

The estimated hourly rate of $35 - $45 is consistent with the financial models developed as part of the *Mental Health Nurse Incentive Program Feasibility Study*[22] prepared by General Practice Queensland. The feasibility study presented three financial models that supported one full time mental health nurse, with two models focusing on the employment of a fulltime mental health nurse. Salaries estimated in these financial models were estimated based on the 2009 Queensland Health N04 (Nurse Grade 7) pay scale and ranged from $35 - $40 per hour. The financial models demonstrated that a range of expenses that must be accounted for, other than the mental health nurses base salary. Additional expenses related to the employment of the mental health nurse included:

- a provision for salary oncosts such as holiday loading and superannuation (range $7,155 - $9,750 per annum); and
- a range of ancillary expenses (range $8,220 – $17,850 per annum) including:
  - clinical supervision;
  - professional development;
  - management and infrastructure expenses, including laptop, mobile, car allowance and internet connection; and
  - provision of group therapies (funding for preparation time).

Mental health nurses engaged under contract

The mental health nurse survey conducted as part of this evaluation revealed a number of nurses are *engaged* under contract by an eligible organisation (16.7%; n=48 respondents). While the evaluation did not seek to quantify the conditions of these arrangements, they are expected to vary substantially between organisations. Information collected by ACMHN suggests that some eligible organisations charge a *fee* per session. On top of this nurses are generally charged room-hire for the use of their room and are responsible for their own

superannuation and professional development. One mental health nurse reported that they are required to pay a fee of $30 per session to the eligible organisation, in addition to $50 per session for room hire (including phone, internet, stationary and office consumables). This leaves a total income of $160 per session, equating to $45.71 per hour. This hourly rate does not include a provision for leave (ie annual, sick or education), public holidays and salary oncosts such as superannuation and professional development. Feedback from case study sites who had *engaged* a mental health nurse indicated similar per-session fees. Further information should be gathered from a larger sample size to validate this finding.

Comparison with NSW Public Health System Nurses' and Midwives State Award

A comparison has also been made with the *NSW Public Health System Nurses' and Midwives (State) Award 2011*. Advice was sought from the ACMHN on which categories would be suitable for comparison.

Table 5.26 presents the analysis of salaries under MHNIP and the NSW public health system nurses. There are notable differences between the working arrangements under MHNIP and the NSW public sector. For example, the NSW award remuneration is for 38 hours per week, whilst MHNIP payments recognise 35 hours per week. The analysis presents hourly rates to standardise this issue.

The analysis is conducted with the following assumptions: nurses work fulltime, there are 10 public holidays during the year and no allowances have been applied to the public sector rate. A MHNIP mental health nurse salary has been derived assuming the nurse receives either the full sessional fee ($240), shown as 100%, or a proportion of the fee, calculated at 91.66 % ($220) and 66.6% ($160), based on the *feasibility study* and feedback from ACMHN. The NSW public health salaries and MHNIP salaries (employed) have had provision for 9% superannuation added. Two scenarios are presented:

- under scenario A, a nurse works for the full year without taking any leave (ie annual, sick or education), resulting in being at work for 50 weeks (as there are 10 public holidays); and
- under scenario B, a nurse takes four weeks leave, resulting in being at work for 46 weeks.

The result shows the MHNIP hourly rate to be slightly less than the NSW public sector for the selected nurse categories. It also demonstrates the impact of leave taken on the MHNIP mental health nurse remuneration. As noted above, these scenarios exclude all forms of allowances that exist under the NSW award. This analysis did not seek to quantify the additional costs borne by nurses engaged by eligible organisations in relation to salary oncosts, professional development and infrastructure/management. Further detailed analysis could be performed that would seek actual remuneration levels of MHNIP mental health nurses and consider the large range of allowances under the NSW public health system award.

An excerpt from of the *NSW Public Health System Nurses' and Midwives (State) Award 2011* can be found in Appendix D, which shows the definitions of the nurse categories used in the analysis.

Table 5.26: Comparison of indicative MHNIP mental health nurse salary with NSW public service

Feature	Scenario A		Scenario B	
	Annual Income	Hourly	Annual Income	Hourly
MHNIP - mental health nurse engaged under contract[a]				
Nurse receives 66.6% of sessional rate ($160) based on ACMHN feedback	$80,000	$45.71	$73,600	$45.71
Nurse receives 91.66% of sessional rate (based on GPQLD financial model)	$110,000	$62.86	$101,200	$62.86
Nurse receives 100% of sessional rate	$120,000	$68.60	$110,400	$68.57
MHNIP - mental health nurse, employed				
Hourly rate reported at $35 /hour	$66,763	$38.15	$66,763	$38.15
Hourly rate reported at $40 /hour	$76,300	$43.60	$76,300	$43.60
Hourly rate reported at $45 /hour	$85,838	$49.05	$85,838	$49.05
NSW Public Sector				
Clinical nurse specialist grade 2 year 2	$104,108	$54.80	$104,108	$54.80
Clinical nurse consultant grade 1 year 2	$115,105	$60.60	$115,105	$60.60

(a) this figure does not contain a provision for salary oncosts, infrastructure/management costs or professional development expenses.

5.10 COMPLIANCE CONTROLS

Compliance controls for eligible organisations are outlined in the *Program Guidelines*. Each organisation must keep records and evidence which, if requested by DHS, would demonstrate compliance with the *Guidelines*.

5.10.1 Patient eligibility

Case study organisations indicated medical practitioner referrals were always received for MHNIP patients. They may take different forms, such as completion of a referral form, referral via verbal comments or email, or advice in case notes. It was common for the medical practitioner to seek input by the mental health nurse to assist in determining if a patient was suitable for MHNIP or for another program, such as ATAPS.

Feedback from medical practitioners suggested they refer their most difficult mental health cases to the mental health nurse. They are more likely to retain full management of patients with less severe mental health disorders. Case study findings suggest that the majority of MHNIP patients comply with eligibility requirements.

Detailed finding # 25: medical practitioners take responsibility for assessing patient eligibility for MHNIP treatment.

A small proportion of the case study organisations interviewed reported that some of their patients might not strictly meet the eligibility guidelines. Nevertheless, they felt it was appropriate to manage such patients under MHNIP as:

- they had multiple comorbidities, addictions, dual diagnosis (anxiety / depression) and a range of other issues (eg homelessness);
- there were limited or no other appropriate services to access; and/or

- if left untreated, these patients were at risk of hospitalisation.

Differences in the profile of HoNOS scores reported on entry to the MHNIP for each of the case study sites was explored using a one-way analysis of variance. The resulting F-Statistic was 376 with 15/446 degrees of freedom, and a p-value of 0.000, indicating that there was overwhelming evidence of some differences between the mean HoNOS scores amongst the 15 case study sites (see Attachment C for details of the statistical analysis). However, it should be noted that the inter-rata reliability of calculating HoNOS may not be consistent between organisations or between mental health nurses. Differences in the characteristics of patient groups may also contribute to some of this variability.

The ACMHN observed, in response to these findings, that many mental health nurses are aware that HoNOS measures are not being collected and used for service planning or evaluation. Therefore, it is possible that many do not place importance on their collection.

HMA further observed that while HoNOS scores do not relate to the eligibility criteria for MHNIP, they do add some qualitative evidence to the findings reported by case study sites.

Detailed finding # 26: there was some evidence of variability in mean HoNOS scores on patient entry to the program, suggesting there is scope for promoting a more consistent approach to assessing eligibility across sites. Clinical governance processes, including cross-site case review processes, could be used to promote this greater uniformity.

5.10.2 Mental health nurse caseload

The *Program Guidelines* contain a large list of elements associated with the expected caseload of mental health nurses. Evaluation observations for each element (shown in italics) are provided below:

(1) *A mental health nurse can be employed for between one and ten sessions per week*. The evaluation found no evidence to the contrary. However, DHS reported instances where:

- mental health nurses were working for more than one eligible organisation and collectively have more than 10 sessions per week; and
- some mental health nurses have claimed more than 10 sessions per week at the one eligible organisation, as the organisation provides access to MHNIP services after business hours and on weekends.

Detailed finding #27: the majority of mental health nurses comply with the employment conditions in the *Guidelines* around the maximum number of sessions per week.

An eligible organisation could be offering access to mental health nurse services outside normal business hours, equating to three sessions per day. Including a Saturday for another two sessions could result in 17 sessions in a week (59.5 session hours). Whilst it may seem unsafe to allow a mental health nurse to work up to 17 sessions in a week, it is reasonable to work more than 10 sessions. The ACMN suggested that, given the seniority and autonomy of the role, mental health nurses could be given greater responsibility over their own safe work practices, supported by the development of strong clinical governance arrangements. Flexibility to enable services to be provided outside of normal business hours needs to be balanced against the need to comply with the *Work Health and Safety Act 2011*.

Detailed finding #28: consideration could be given to expanding the current mental health nurse employment conditions allowing them to provide greater than 10 sessions per week to enable eligible organisations to offer MHNIP services out of hours and on weekends.

(2) Each mental health nurse should have an average nurse caseload of at least two individual services to patients with a severe and persistent mental health disorder per session. Individual services include face-to-face and telephone consultation. Mental health nurses interviewed during case studies reported being very busy and but able to meet this requirement comfortably.

Detailed finding #29: mental health nurses comply with caseload requirement of at least two individual services to patients per session.

During the case studies some mental health nurses said they claimed a maximum of two patients per session, regardless of how many patients they actually supported during that period. The reason given was that any additional information above two patients was irrelevant: this did not affect funding levels and it reduced the administrative and data input they had to enter. This was also an observation reported by the ACMHN. This has important implications for evaluating the impact and reach of the program relative to their level of treatment, as the true level of services provided to patients is unknown.

ACMHN reported it had received feedback from mental health nurses demonstrating an unintended consequence of the requirement of at least two individual services to patients per session. If a patient requires unplanned support due to a crisis or increased acuity, the mental health nurse cannot claim this time as a session because it is not a service to two clients. This has the potential to detract from the flexibility of the program.

Detailed finding #30: compliance around completing the claim form could be improved to capture data on all mental health nurse patient activity.

(3) *A full-time mental health nurse should have a current minimum case load of 20 individual patients with a severe and persistent mental health disorder per week, averaged over three months* and, *the expected annual caseload managed by a full-time mental health nurse is 35 patients*. During the case studies mental health nurses reported they met this requirement. In case study interviews it was common for mental health nurses to state they had more than 20 active MHNIP patients that they were managing.

Detailed finding #31: mental health nurses are meeting the compliance requirements relating to the minimum caseload (number of individual patients) per week and over the year.

(4) *A full-time mental health nurse engaged for 10 sessions per week would provide an average 25 hours of clinical contact time per week, with the balance of time spent in related tasks including interagency liaison, case planning and coordination, clinical briefings to relevant general practitioners and/or psychiatrists, and travel*. Mental health nurses interviewed during the case studies were asked to estimate how they spend their time on average across the elements listed above. Some mental health nurses were very aware of the need to have 25 hours (or 71.4% of their time) spent on clinical contact.

The case studies found an average of almost 70% of time was allocated to *clinical contact* (ranging from 53% to 85%). Within this over-arching category *care planning and coordination* was the activity with the largest allocation of time, with an average of

9.2% (ranging from 6% to 12.5%), followed by *interagency liaison* with an average of 8.5% (ranging from 2% to 15%).

Detailed finding #32: mental health nurses are, on average, allocating 25 hours per week to clinical contact, consistent with the requirements of the *Program Guidelines.*

6 Efficiency: Findings

6.1 ASSESSMENT SCOPE

An examination of a program's *efficiency* seeks to ascertain:

> *whether there are better ways of achieving these objectives, including consideration of expenditure and cost per output, project governance arrangements, and implementation processes.*

In undertaking the assessment of the program's efficiency, the evaluation looked at the processes by which the program is delivered:

- management of the program, including:
  - governance;
  - implementation processes; and
- cost effectiveness.

6.2 SUMMARY OF FINDINGS

The key findings of the evaluation of MHNIP in relation to efficiency are summarised below.

Key Finding 19: based on the de-identified patient data provided by case study organisations (N= 267 patients), the cost analysis suggests that savings on hospital admissions attributable to MHNIP could on average be around $2,600 per patient per annum. This was roughly equivalent to the average direct subsidy levels of providing MHNIP, which ranged from an average of $2,674 for patients in metropolitan areas to $3,343 in non-metropolitan areas.

Key Finding 20: there are a large number of uncosted and intangible benefits associated with MHNIP including the impacts of improved patient outcomes, enhanced relationships with carers and family members, and the effects on carer social security outlays. Examination of these impacts would require an extensive enhancement to existing data collection processes. The evaluation findings suggest a comprehensive economic analysis would find these benefits to be positive.

Detailed evaluation findings relating to program efficiency that impact on MHNIP operations are summarised below:

Detailed finding #33: department staffing outlays for managing MHNIP are small (around 2.0 FTE) relative to overall program outlays. Consideration could be given to additional administrative activity in the areas of standard report generation and promoting program uptake in relevant sectors eg Aboriginal Medical Services.

Detailed finding #34: a range of additional information should be collected using the claim form and an annual return by the eligible organisation.

Commentary supporting these findings is presented below

6.3 PROGRAM MANAGEMENT

DoHA has overall responsibility for managing the operations of MHNIP. It has roles in the area of program management, marketing and administration, described below.

(1) **Program management activities:** this role encompasses a range of activities, including:

- establishment of the program structure and elements, such as implementation of the requirement for mental health nurses to be credentialed;
- managing policy aspects of the program;
- managing *Program Guideline* content and parameters;
- resolving guideline ambiguity (largely via requests from DHS);
- monitoring whether the program is meeting its aims;
- responding to ad hoc queries;
- engaging with internal mental health experts and advisors; and
- responding to queries and provision of information to the Minister's office.

DoHA had regular consultations with the sector during the design development phase of MHNIP. Further dialogue with the sector has occurred more recently via the evaluation steering committee.

(2) **Program marketing:** marketing activities for MHNIP by DoHA included a media release in April 2007 introducing MHNIP. GPs, psychiatrists and AMSs received a letter about the program and an application package via mail in mid-2007. The DHS web page contains a collection of information on MHNIP, including the *Program Guidelines*, accessible by searching online.

The ACMHN has actively marketed and promoted MHNIP through their membership and web pages. Other peak bodies such as the Royal Australian and New Zealand College of Psychiatrists have made information on MHNIP available to their members through their web page.

(3) **Program administration:** DoHA has a memorandum of understanding with DHS that covers administrative arrangements for a spectrum of health related programs. MHNIP is one program covered by the *business rules* between the two agencies. Under these rules DHS is responsible for administering program funding. DoHA provides monthly payments of funds to DHS based on the level of session claims.

DHS is responsible for managing program data and data quality on MHNIP. DHS provides monthly reports on MHNIP activity to DoHA. There is scope to make greater use of these reports eg to monitor activity levels at a Medicare Local level.

DoHA advised that average staffing applied to program administration has been 2.0 FTE per annum, a relatively small input relative to overall program outlays.

During the evaluation HMA observed that engagement of AMSs in the program is limited. Two AMSs were registered as eligible organisations at 30 April 2012. Only one of these sites was actively involved in delivering MHNIP services.[23] HMA visited this site during the evaluation. We examined the treatment and support given by a non-Indigenous mental health nurse and the linkage made to other primary mental health care in that AMS. This observation confirmed that the MHNIP model of care has validity in an AMS context, suggesting that additional promotional activities of MHNIP within the Aboriginal primary care sector could be explored.

Detailed finding #33: department staffing outlays for managing MHNIP are small (around 2.0 FTE) relative to overall program outlays. Consideration could be given to additional administrative activity in the areas of standard report generation and promoting program uptake in relevant sectors eg Aboriginal Medical Services.

6.4 DATA COLLECTION

This section identifies additional data collection that could be considered for future MHNIP operations.

As noted in the previous section, DHS is responsible for managing program data and collection. The main method of data collection is via the session claim process, which requires eligible organisations to fax a completed claim form for each session performed. The form collects a range of detailed information, by eligible organisation, mental health nurse and patient Medicare number.

The evaluation analysis activities sought a range of data from DoHA and DHS, of which some detail was unable to be provided.

Useful data, currently not available includes:

- identification of the patient's usual treating physician;
- patient indigenous status;
- indication of whether a mental health care plan has been prepared, and the date; and
- updated details of the eligible organisation, such as number of mental health nurses engaged and fulltime equivalence, proportion of medical practitioners actively referring under MHNIP, number of patients participating in MHNIP (and proportion of total patient catchment).

It is noted that some of this information is collected on the claim form, such as treating physician, but was not accessible for the project because of problems with data quality. In addition, using the patient's Medicare number, DHS may be able to access some of the other information specified above through Medicare registration processes and other programs.

This data could be collected through the existing claim form (electronic rather than fax), accompanied by an annual return to be submitted by each eligible organisation. Whilst this last point is a deviation from what currently occurs, it is consistent with information collection processes for other DoHA funded programs, such as the Access to Allied Psychological Services.

Detailed finding #34: a range of additional information should be collected using the claim form and an annual return by the eligible organisation.

6.5 COST ANALYSIS

HMA undertook a cost analysis to assess the impact of MHNIP. This focussed on the level of resource use in treating patients with a severe and persistent mental illness under the MHNIP service delivery model and compared to what could have occurred in the absence of MHNIP services. Therefore, the study assessed the *change* in key-resource use of patients with a severe mental illness receiving services under MHNIP and those patients with a severe mental illness that do not receive services under MHNIP. The study employed a retrospective longitudinal study design.

A full description of the study method and findings is at Appendix D.

6.5.1 Method

As part of the case study process, HMA sought de-identified information on up to 50 consumers of MHNIP services at each case study organisation. HMA received information on 464 consumers of MHNIP services from 15 case study organisations. Using pre-determined exclusion criteria for patients, a total of 267 patients were included in the analysis. The patients included in the analysis recorded 34 hospitalisations in the 12 months prior to entering MHNIP, and 30 hospitalisations in the 12 months after entering MHNIP

6.5.2 Results

The study suggests that MHNIP had the potential to reduce mental health related hospital admissions by approximately 3 days (95% CI -5.57 – 0.078) per patient with severe mental illness and would be associated with a cost saving per patient of around $2,600 (95% CI -$5353 – $75). This finding was statistically significant at the 0.10 level ($p<0.06$). Caution should be taken when interpreting these savings, given the large confidence intervals. The variability of these results is the product of a small sample size, variability and the low rates of hospitalisations for these patients. The estimated savings are likely to be conservative, given that additional savings may also be derived from a changing pattern of claims for MBS item numbers, and reduced attendances to hospital emergency departments.

While detailed information on the number and frequency of sessions these patients had with the mental health nurse was not available, a notional cost of providing services to patients ranged from $2,674 for consumers attending metropolitan practices, to $3,343 for those located in non-metropolitan areas in the 12 months following entry to MHNIP. Feedback from case study organisations indicated a common frequency of contact by patients with their mental health nurse was approximately one hour every week for the first six months following entry into MHNIP and fortnightly appointments thereafter.

The over-all effect on MBS Items claimed in the two periods was ambiguous and should be further explored in future analysis when data is available. Similarly, information on the changing profile of pharmaceutical use of patients both pre and post-entering MHNIP was not available. However, measurement of changes in pharmaceutical use might not be an adequate indicator of impact of the program, given that one of the most commonly reported outcomes related to pharmaceuticals was increased compliance and better management. The effects of increased compliance and better management of medications are likely to result in better patient outcomes, but may have an ambiguous effect on pharmaceutical spending.

Key Finding 19: based on the de-identified patient data provided by case study organisations (N= 267 patients), the cost analysis suggests that savings on hospital admissions attributable to MHNIP could on average be around $2,600 per patient per annum. This was roughly equivalent to the average direct subsidy levels of providing MHNIP, which ranged from an average of $2,674 for patients in metropolitan areas to $3,343 in non-metropolitan areas.

The design of the cost analysis did not enable accurate assessment of the impacts of MHNIP on MBS claim costs, the level of ED admissions, and the value of intangible benefits to patients such as improved patient outcomes, enhanced relationships with carers and family members, and the effects on carer social security outlays. Findings from the evaluation suggest that overall economic benefits of these uncosted impacts and intangible benefits would be positive.

Key Finding 20: there are a large number of uncosted and intangible benefits associated with MHNIP including the impacts of improved patient outcomes, enhanced relationships with carers and family members, and the effects on carer social security outlays. Examination of these impacts would require an extensive enhancement to existing data collection processes. The evaluation findings suggest a comprehensive economic analysis would find these benefits to be positive.

7 Overall findings and possible ways forward

7.1 EVALUATION – SUMMARY OF FINDINGS

Based on the commentary provided in the evaluation assessment we provide the following overview of our evaluation findings:

(1) **Appropriateness:** MHNIP is providing support to a sizeable group in the community – people with severe and persistent mental health illness who are primarily reliant for their treatment on GPs and psychiatrists in the private sector (around 0.6% of the adult population). There are still large levels of unmet need from this group. The model of care involving clinical treatment and support by credentialed mental health nurses working with eligible medical practitioners received strong endorsement. This came from patients, carers and medical practitioners using the program, along with relevant peak bodies.

(2) **Effectiveness:** the evaluation found that MHNIP receiving treatment and support under the program benefitted from improved levels of care due to greater continuity of care, greater follow-up, timely access to support, and increased compliance with treatment plans. This was evidence of an overall reduction in average hospital admission rates while patients were being cared for, and reduced hospital lengths of stay where admissions did occur. There was also evidence that patients supported by MHNIP had increased levels of employment, at least in a voluntary capacity, and improved family and community connections. MHNIP has had a positive impact on medical practitioner workloads by increasing their time available to treat other patients and improve patient throughput.

(3) **Efficiency:** based on the de-identified patient data provided by case study organisations (N= 267 patients), the cost analysis suggests that savings on hospital admissions attributable to MHNIP were on average around $2,600 per patient per annum. This was roughly equivalent to the average direct subsidy levels of providing MHNIP, which ranged from an average of $2,674 for patients in metropolitan areas to $3,343 in non-metropolitan areas. There are a large number of uncosted and intangible benefits associated with MHNIP, including the impacts of improved patient outcomes, enhanced relationships with carers and family members, and the effects on carer social security outlays. Examination of these impacts would require an extensive enhancement to existing data collection processes. The evaluation findings suggest a comprehensive economic analysis would find these benefits to be positive.

Although the model of care underpinning MHNIP is well regarded and has positive outcomes, other design features of the program could be re-examined. This is particularly true of the current purchasing arrangements. These provide limited capacity to manage demand in line with program resource allocations and do not enable growth to be targeted at geographic areas of greatest need.

7.2 POSSIBLE WAYS FORWARD

Observations on possible areas for enhancement of MHNIP are provided in Table 7.1

Table 7.1 MHNIP Design Features – Commentary and Options to Address Program Design Issues

Program Design Characteristic	Current MHNIP Design Feature	Observations Based on Evaluation Findings	Possible Options for Consideration, Based on the Evaluation Findings
Model of care	• Target group: people in the community with a severe *and* persistent mental illness. • Credentialed mental health nurses work closely with GPs and psychiatrists to provide coordinated clinical services. It should be noted that GPs and Psychiatrists are the primary care givers. • The *Program Guidelines* outline functions that mental health nurses should undertake. • There is no cap on the number of sessions a nurse has with a patient • A nurse can be engaged to provide between one and ten sessions per week, per organisation, with an average nurse caseload of at least two individual services to patients per session.	• Medical practitioners, patients and carers have provided positive feedback that the program is meeting its objectives in keeping people with severe and persistent mental illness well. **See Section 4.4.1, Key Findings 3 and 4** • A common patient pathway to access MHNIP services exists, however variations have been found, including triaging processes **See Sections 5.4.1, 4.4.2, Detailed Findings 3 and 14**	• The *Program Guidelines* could be further revised to clarify roles and responsibilities of eligible organisations and mental health nurses, particularly in relation to responsibilities in managing the triage process, services provided and clinical governance
Program Participation	• Eligible (ie registered) organisations, comprising self-selected: o Private primary care services – general practices and private psychiatry practices o Medicare Locals o Divisions of General Practices o Aboriginal and Torres Strait Islander Primary Health Care Services funded by the Australian Government through the Office for Aboriginal and Torres Strait Islander Health (OATSIH).	• There are varying degrees of program uptake across organisation types with GPs providing most MHNIP services and only a small number of Aboriginal and Torres Strait Islander Primary Health Services taking up the program. This self-selected, demand driven approach has resulted in inequitable service delivery (See **Demand Management** below) **See Section 4.4.2, 4.6 and Key Findings 5 and 8**	• Investigation into the causes of unmet demand would assist in determining the reasons for service inequity. Some factors to consider include socioeconomic trends in each geographic area, patient drivers and Commonwealth and state and territory services that are available for people with severe and persistent mental illness in areas of perceived unmet demand.
Funder	• DoHA	• N/A	• N/A
Purchaser	• DoHA is the funder and purchaser (based on retrospective payment of claims in arrears). • Purchasing intelligence: DHS reports.	• There is therefore limited control over program expenditure levels (other than the current cap on sessions). • There is currently no mechanism to ensure equitable access to MHNIP	• Consider ways to ensure any new service provision is targeted to regions of unmet demand rather than being driven by supply side factors. • Ensure eligibility criteria on entrance and exit
Demand management	• Nil, until application of the session cap in May 2012. Prior to this activity levels were driven by supply		

	side factors: ○ number of eligible providers; and ○ number and availability of credentialed nurses.	services across geographies. • Based on derived figures of population with severe and persistent mental illness, there is evidence that demand exceeds services currently available (See also Detailed Finding 8). • As program is demand driven, supply side factors such as availability of nurses and perceived need by medical practitioners determine where services are provided. Due to this reason, service growth is not always linked to geographic areas of where there was higher need for new services. **See sections 4.4.5, 4.5, 4.6 and 6.3 and Key Findings 7 and 8**	are clearly understood and complied with. • Facilitate more formalised patient pathways between MHNIP and other appropriate services. • Consider ways to manage program and regional expenditure levels.
Planning			
Practice level	• Triaging at the practice level.	• Most medical practitioners from the evaluation were quite well informed of the types of mental health services that are available for their patients when deciding which Commonwealth Government mental health service program to refer their patients to. **See Section 4.4.4 and Key Finding 6 and Detailed Finding 6** • Level of acuity for patient entry into the program appears to vary. **See sections 4.4.4, 5.4.2, 5.5 and 5.10.1 and Detailed Findings 15, 25 and 26.**	• Clinical governance processes at a regional level could be developed to promote greater uniformity in the level of acuity of patients entering and exiting MHNIP. Processes may need to be varied in accordance with access to other support for people with severe and persistent mental illness in the area (eg access to public mental health services varies by geographic region).
Other levels (regional; national)	• While nurse engagement and patient management is typically managed at the practice level, some eligible Medicare Locals triage at the sub-regional or regional level.	• Promotes greater uniformity of access across the geography **See section 4.4.2 and 5.5 and Detailed Finding 18**	• See above

Clinical governance			
Practice level	• Some rules, as per the *Program Guidelines*, that are applicable to eligible organisations include the following: o The mental health nurse delivers services in collaboration with the medical practitioner. o The medical practitioner is required to practice formal protocols in managing patient mental health care, including the use of a GP Mental Health Treatment Plan, mental health nurse assessment of eligible patients at entry, every 90 days and when patient exit the program using the Health of the Nation Outcomes Scale, including the Child and Adolescent, Adult, and Older Person tools. • Other activities: ad hoc (eg nurse clinical supervision is determined on a site basis between the medical professional and the nurse; professional development is at the nurse's discretion, other than what is required to maintain credentialed status).	• There is wide variability in clinical governance practices, including clinical supervision at a practice level. Quality could be improved if there was a more standardised approach. **See section 5.5 and Appendix C and Detailed Finding 18**	• *Program Guidelines* could be further revised to clarify expectations of mental health nurses and medical practitioners in service provision.
Other levels (regional; national)	• The *Program Guidelines* provides program participants with guidance on patient, organisation and nurse eligibility criteria, administration of the program and guidelines that organisations registered to provide MHNIP should abide by.	• No formal clinical governance arrangements, however the *Program Guidelines* provide a range of requirements that relate to governance type activities. **See Section 5.5 and Appendix C and Detailed Finding 18** • Medical practitioners and nurses from the evaluation agree that the *Program Guidelines* are generally accessible; however there is scope to revise the Guidelines, in particular to allow for greater clarity in some areas including clearer description of reporting requirements and services that can be provided. **See section 5.7.2 and Detailed Finding**	• Develop a standardised approach to clinical governance at the regional and national level, including advice on: o triage processes; o case management processes; o risk management; o patient and carer complaint mechanisms; and o identifying and supporting hard to reach population groups. • The *Program Guidelines* could be further revised to clarify roles and responsibilities and reporting requirements

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8 Appendices

APPENDIX A LINK BETWEEN THE STATEMENT OF REQUIREMENT AND THE EVALUATION REPORT

The *statement of requirement* (SRQ) in the original Request for Quotation (RFQ) contained sixteen questions to be addressed by the project. The evaluation methodology mapped the statement of requirement questions to the three broad evaluation criteria of appropriateness, effectiveness and efficiency. This mapping is shown below in Table 8.1. Further additional questions relevant to the evaluation scope were added by HMA, in consultation with the Department, and are also shown in the table below.

Table 8.1: Mapping statement of requirement to project methodology

Statement of Requirement		Evaluation Criteria Under which the Issues is Considered
Patient Outcomes	SRQ 1: Changes in patient outcomes under MHNIP, including changes in HoNOS data, hospitalisation rates, employment activity rates and social/education participation rates	Effectiveness
	SRQ 2: Mental health nurse, GP, psychiatrist and other relevant health professional views on the extent MHNIP has contributed to improvements in patient care	Effectiveness
	SRQ 3: the impact of the program structure in achieving MHNIP objectives	Appropriateness
	SRQ 4: connections with PHaMS or other similar programs to assist linkages with community support and social connection activities	Appropriateness
Program Take up	SRQ 5: barriers to patient entry to MHNIP	Effectiveness
	SRQ 6: drivers for mental health nurse /organisation entry / exit from the program	Effectiveness
	SRQ 7: reasons for registered organisations' failure to commence activities under the program	Effectiveness
Demand Profile	SRQ 8: current anticipated demand profile	Appropriateness
	SRQ 9: uptake of program via geographic and target patient analysis, and gaps in this uptake	Appropriateness
	SRQ 10: estimated maximum funding requirements for MHNIP based on all eligible patients receiving access	Appropriateness
Cost Effectiveness	SRQ 11: overall cost benefit of MHNIP on the health system, and drivers of this benefit	Efficiency
	SRQ 12: overall cost and benefits on the health system of extending the program to the private hospital setting	Efficiency
Program Structure*	SRQ 13: appropriateness and effectiveness of the payment structure	Effectiveness
	SRQ 14: effectiveness and ease of use of MHNIP Program Guidelines	Effectiveness
	SRQ 15: linkages with other government programs including Better Access, Better Outcomes, ATAPS and MHSRRA	Appropriateness
Compliance	SRQ 16: effectiveness of current compliance controls for patient / mental health nurse eligibility to MHNIP	Effectiveness
Other evaluation areas identified beyond the RFQ		
	Suitability of the MHNIP program design	Appropriateness, post evaluation assessment
	Process of care management	Effectiveness
	Clinical governance	Effectiveness
	Workforce	Effectiveness

Note The evaluation considers SRQ 14 as an implementation issue and therefore categorised it under effectiveness. In addition, SRQ15 is considered a design issue and is therefore categorised as appropriateness.

APPENDIX B EXPLORATION OF EVALUATION FINDINGS AGAINST KEY THEMES OF PREVIOUS MHNIP EVALUATIONS AND REPORTS

This appendix compares the current evaluation findings against the key themes from the following evaluations and project:

- *Evaluation of the pilot of Mental Health Nurse Incentive Program in the Private Hospital Setting*; and
- *Case Studies Report*.

Table 8.2: Key findings of the *Pilot of the MHNIP in the Private Hospital Setting* – comparison with the findings of this evaluation

Key finding – Evaluation of the pilot of the MHNIP in the private hospital setting	HMA Observations based on the Evaluation Findings
Strengths and Weaknesses of the Model	
Qualitative and quantitative feedback has identified strong endorsement of the model underpinning the MHNIP Pilot in private mental health settings. This is seen to benefit clients and their significant others as well as the private mental health system.	Similar views were expressed by mental health nurses, general practitioners and psychiatrists and clients during the case study process and surveys (MHN and medical practitioners).
There is agreement between mental health nurses and coordinators, and psychiatrists and GPs about the strengths of the MHNIP Model, including: • Enables more effective crisis intervention • Provides accessibility to mental health services for clients unable to access or rejected by public MH services • mental health nurses fill a gap in the private mental health service system • Is a means of providing support and continuity to clients in hospital • Enables more holistic care (eg through links to the community services and other supports in client's environments) • Provides a free service to clients • Clients have access to an increased range of mental health services • Accessibility is greatly enhanced through provision of home based service • The initiative is resource effective (eg substituting MHN time for psychiatrist/GP time) • Is expected to reduce the total number of hospital admissions for mental health problems • The guidelines are sufficiently flexible to support innovative service provision • The mental health nurse role in medication monitoring reduces time spent by GPs/psychiatrists on this • Reduces the waiting time for psychiatrist services • Is expected to reduce the total number of hospital bed days for mental health problems • Provides enhanced accessibility to mental health services for clients of other disadvantaged backgrounds • Enables streamlined access to psychiatrists • addresses gap in mental health service provision for Indigenous clients	Findings from the Pilot are strengthened and supported by the findings of this evaluation. Specifically, the total number of inpatient bed days for mental health problems was reduced by an average of 3 days (95% CI -5.57 – 0.078) for a sample collected as part of the cost analysis. This is indicative only, as this was based on a small sample that is not representative.

Key finding – Evaluation of the pilot of the MHNIP in the private hospital setting	HMA Observations based on the Evaluation Findings
Weaknesses of the model were identified as: • Lack of security in pilot status – eg inhibits recruiting of mental health nurses who are already scarce in supply • Lack of Medicare funding for case management meetings and discussions between psychiatrists and MHNs • The requirement to service two clients within one session (ie half day) is problematic in rural areas due to distance • Reliance on auspice's infrastructure eg cars, accommodation - not able to stand alone facility • Lack of Medicare funding for coordination and follow up work by • Not being promoted effectively to GPs, resulting in limited understanding of MHNIP	Although fundamentally different, the weaknesses of the Pilot model – particularly the lack of program security, issues with funding and insufficient promotion – were echoed by stakeholders during this evaluation.
Client's regard the MHNIP model as having more strengths than weaknesses and improvements suggested actually support the existing model by seeking increased resourcing to continue, with minor modifications for service delivery.	These views were reinforced by clients during the case study process, with many saying that they would like more time with the mental health nurse.
MHNIP services have been very responsive and supportive to their clients, providing significantly shorter waiting times than would occur in relation to seeing a psychiatrist	The flexibility of the MHNIP model was cited by clients, mental health nurses and medical practitioners as a key strength. This included the ability for the MHN service to adapt quickly to the changing needs of the client.
Where home-based visits were being provided, the MHNIP model offered significant accessibility and flexibility in its mode of delivery for clients. From a clinical perspective, the opportunity to increase service providers' understating of clients' home environments is also provided. However, home-based delivery does bring increased risks for Mental Health Nurses, associated with travel and with safety in relation to some clients. The time and costs associated with home-based delivery make it more expensive than a clinical based delivery mode.	MHNIP offers the flexibility for mental health nurses to meet clients in a variety of locations. Many nurses reported meeting their patients outside an office setting, including at the client's home, coffee shops and at parks. Mental health nurses who do not meet clients outside of the office environment cited insufficient funding as one of the main reasons they did not provide home-visits. The increased risk for mental health nurses s was also cited as key reason for not offering home-visits.
Employment of mental health nurses in MHNIP	
Mental health nurses and coordinators assigned a high degree of importance to the following roles: • Monitoring clients' mental health and wellbeing • Face-to-face sessions with clients • Client education • Advice and general information • Meetings and information exchange with psychiatrists • Post-discharge follow up of clients • Administration relating to MHNIP • Support and education to clients and their families • Referral/linkage of clients to other services in the community	The roles, activities and services reported by mental health nurses s in the Pilot project are closely aligned to the roles reported by nurse s in both the survey and case studies conducted as part of this evaluation.
The three most commonly identified activities and services delivered by mental health nurses as seen by clients were: • Provision of information and advice to assist in self-management of mental health issues • Provision of support not elsewhere received • Help with understanding and managing medication	

Key finding – Evaluation of the pilot of the MHNIP in the private hospital setting	HMA Observations based on the Evaluation Findings
Current program requirement regarding recognition and credentialing by the ACMHN is an important quality control mechanism, and a means of formal recognition of the expertise required of Mental Health Nurses. At the same time, it is important to recognise previous experience and MHNIP nurses should have ready and affordable access to Recognition of Prior Learning assessment processes.	The requirement for credentialing by ACMHN was seen as necessary by participants in the case study and survey process. However, many suggested that professional development and continuing education was difficult to sustain under the funding provided for MHNIP.
When asked about job satisfaction and conditions of employment: • The lowest average rating was applied to *opportunities for future training and development,* followed by; • *Security of employment* and *salary and financial benefits* , and • *Opportunities to develop specialised skills and knowledge on-the-job*	Opportunities for future training and development, security of employment and salary and financial benefits were viewed as a potential weakness of working under the MHNIP. Others said that they found it difficult to find a practice that was willing to employ a metal health nurse under the program due to this uncertainty and lack of financial benefits, with many of these nurses s being 'engaged' rather than 'employed' by the organisation.
Impact on the private mental health service system	
The majority of participating psychiatrists and GPS believe that the MHNIP has made a positive impact in a number of ways, but in particular, in relation to their capacity to deal with complex cases, increased involvement with others involved in client's care, and the achievement of a more timely response to acute or emergency presentations.	These findings are supported by this evaluation, with many citing that the mental health nurse gave them the confidence to deal with the more complex cases often keeping these clients in the community.
Qualitative and quantitative feedback from the three main key stakeholder groups identified strong endorsement of the model underpinning the MHNIP Pilot in private mental health settings. This is seen to benefit clients and their significant others as well as the private mental health system. The Mental Health Nurse role has been found to fill a gap in the private health system and to have had an extremely positive impact on clients to have bought a number of benefits to referring psychiatrists and GPs. This positive impact is seen by all three groups of stakeholders as able to be extended through resourcing improvements.	Quantitative and qualitative feedback received as part of this evaluation supported the view that MHNIP filled a gap in service delivery for patients with a severe mental illness and contributed to positive patient outcomes. HoNOS scores were received from only 87 of the 267 patients included in the cost analysis on both entry to MHNIP and at 12 months later. HoNOS scores fell from an average of 13.7 on entry to MHNIP, to 10.1 at the end of the first 12 months of MHNIP treatment. There are a large number of uncosted and intangible benefits associated with MHNIP including the impacts of improved patient outcomes, enhanced relationships with carers and family members, and the effects on carer social security outlays. Examination of these impacts would require an extensive enhancement to existing data collection processes. The evaluation findings suggest a comprehensive economic analysis would find these benefits to be positive.
It is evident that all three groups, representing the key stakeholders in MHNIP, have positive views about the impact of the Program on client outcomes. This is despite the difficulties associated with implementing the program as a pilot.	
MHNIP has had a positive impact on the health and well-being of most of its clients, based on statistically significant changes in HoNOS scores following entry to the Program, and based on the interview and survey feedback of MHNs , clients, and psychiatrists and GPs.	
Should the MHNIP become an on-going component of the private mental health system, it will be important that its resourcing is less reliant on goodwill and altruism and more reliant on funding that acknowledges the range of inputs required.	Many participants in the case study and survey processes strongly advised that the feel level no longer provided an incentive to participate in the program. The lack of indexation means organisations have experienced a real decrease in the sessional fee value and mental health nurse salaries have increased over time.

Table 8.3: Key findings of the *NACMH Case Studies Project* – comparison with the findings of this evaluation

Case Study Report Findings	HMA Observations based on the Evaluation Findings
Funding	
• Services experienced difficulties with the funding formula being limited to covering salary and on-costs under the MHNIP Program Guidelines.	• Similar views were expressed during the evaluation survey and case studies.
Interpretation of the program guidelines	
• Interpretation of the Program Guidelines varied across sites. • In particular "not all service users appear[ed] to be at risk of hospitalisation."	• Level of acuity for patient entry into the program appeared to vary across some sites.
Service models	
• There was a range of employment models for mental health nurses	• Different employment models had some impact on triage processes • This did not affect the underlying model of care provided to patients accepted into the program: mental health nurses, working in conjunction with GPs and psychiatrists, provided treatment and support to people with severe and persistent mental illness living in the community.
Workforce	
• Mental health nurses need the ability to work autonomously and collaboratively with doctors and other health professionals.	• There were similar observations during the evaluation survey and case studies.
Data collection	
• Mental health nurse interventions were recorded into patient management systems. • HoNOS data was not routinely entered into a database or examined for service improvement purposes.	• HoNOS data was routinely collected but not regularly used for service improvement purposes. • The evaluation collected HoNOS scores for a sample of patients from a selection of case study sites. • The evaluation found that HoNOS data could be used to provide useful insights into the operations and impacts of MHNIP at a program level.
Mental health outcomes	
• There were anecdotal reports that inpatient episodes had reduced for clients.	• Quantitative evaluation evidence showed overall mental health hospital admissions decreased by 13.3% for a sample of MHNIP patients in the 12 months following their involvement in the program. This was not true for all conditions: bipolar disorders showed a slight increase in the number of admissions.
Other health outcomes	
• Clients reported better overall physical health after becoming involved in MHNIP	• There were similar observations during the evaluation survey and case studies.
Consequences / impact	
• GPs experienced greater throughput in their practice.	• There were similar observations during the evaluation survey and case studies.
Access / barriers	

Case Study Report Findings	HMA Observations based on the Evaluation Findings
• A range of factors promoted access to the program and acted as barriers to program use.	• There were similar observations during the evaluation survey and case studies.
Partnerships	
• Mental health nurses were linking patients with other services.	• There were similar observations during the evaluation survey and case studies.
Sustainability	
• There were concerns about how long the program would operate.	• There were similar observations during the evaluation survey and case studies.

APPENDIX C COMPARISON WITH ATAPS CLINICAL GOVERNANCE FRAMEWORK

The Access to Allied Psychological Services (ATAPS) *Clinical Governance Framework* was developed by the Australian Medicare Local Alliance (AMLA) on behalf of DoHA. The Framework is designed to provide a "*significant opportunity for Medicare Locals and contracted agencies to rethink their ATAPS programs and to ensure that all population groups identified under ATAPS have access to quality primary mental health care services*"[24].

The *Clinical Governance Framework* comprises of seven pillars of clinical governance that are applicable for the ATAPS program. Each of these pillars contains a number of activities or strategies that are underpinned by a set of core elements. These core elements are supported by a number of suggested key resources, which our outlined in the table below.

The *Clinical Governance Framework* provides a useful benchmark for a comparison against evidence collected during MHNIP case study site visits. It should be noted that this framework was developed to be implemented and managed by Medicare Locals, and may not be suitable for all MHNIP eligible organisations. Furthermore, the framework has been applied retrospectively to the information gathered during the case studies. Questions were therefore not specifically targeting each element under this framework.

There are a number of suggested resources in this framework appearing under more than one core element. These key resources are marked with an * and the MHNIP case study observation has not been repeated.

Table 8.4 ATAPS suggested resource from the ATAPS Clinical Governance Framework – Comparison with MHNIP case study observation

ATAPS Suggested Resource	MR = Minimum Requirement DR = Desired Requirement	MHNIP - Case Study Observation
Pillar 1: Consumer and Community Participation		
ATAPS client consent form	MR	No specific MHNIP consent forms were observed, although patient agreement should be sought as part of the mental health care plan.
ATAPS information brochure	MR	No evidence of a MHNIP information brochure.
Client feedback form	MR	There was no evidence of a formalised process/form specific to MHNIP. However, some eligible organisations had implemented patient satisfaction forms and or surveys, of all patients not just MHNIP clients.
Complaints form	MR	
Complaints policy	MR	
Complaints procedure	MR	
Privacy and confidentiality policy	MR	Not observed directly, but assumed exists within each eligible organisation's policy framework.
Quality improvement framework	MR	No evidence of formal Quality Improvement Framework specific to MHNIP
Statement of clients' rights and responsibilities	MR	There was little evidence of a formalised process. However, it may fall within the content of the mental health care plan.
Consumer participation strategy	DR	No strategy was observed.
Needs assessment framework	DR	No formal needs assessment framework observed
Remuneration policy for consumers and carers	DR	N/A

ATAPS Suggested Resource	MR = Minimum Requirement DR = Desired Requirement	MHNIP - Case Study Observation
Pillar 2: Service Delivery and Access		
ATAPS information brochure*	MR	*Repeat, see above*
ATAPS triage and referral procedure	MR	No formalised MHNIP triage and referral procedure.
Client feedback form*	MR	*Repeat, see above*
Clinical pathway for ATAPS clients	MR	No formal documented pathway was observed
Clinical supervision policy and procedure	MR	There was little evidence of a formalised policy and process for MHNIP.
Needs Assessment Framework*	DR	*Repeat, see above*
Service access assessment tool	DR	There was some evidence of triaging occurring, but a formal assessment tool was not observed
Standard contract for private allied health providers	DR	N/A
Pillar 3: Service evaluation, quality improvement and innovation		
Client feedback form*	MR	*Repeat, see above*
Clinical pathway for ATAPS clients*	MR	
Clinical supervision policy and procedure*	MR	
Quality improvement framework*	MR	
Reporting template for the MDS	MR	There is no formal reporting aspect for MHNIP, other than registration and regular submission of claim forms.
Terms of reference for a clinical quality and risk management committee	MR	Not observed under MHNIP
Clinical record audit summary form	DR	
Guidelines for conducting clinical audits	DR	

ATAPS Suggested Resource	MR = Minimum Requirement DR = Desired Requirement	MHNIP - Case Study Observation
Pillar 4: Risk management		
Allied health accreditation and continuing professional development register	MR	Yes. ACMHN credentialing requirement for mental health nurses.
ATAPS staff induction checklist and feedback form	MR	Not observed, but likely to be part of general staff induction process.
ATAPS staff induction procedure	MR	
ATAPS triage and referral procedure*	MR	*Repeat, see above*
Clinical pathway for ATAPS clients*	MR	
Clinical risk management procedure	MR	There was no evidence of a procedure specific to MHNIP.
Code of conduct policy	MR	
Critical incident policy and procedure	MR	
Critical incident report form	MR	
Generic role description for private allied health provider	MR	Generic role description for MHN contained in *MHNIP Guidelines*
Mandatory reporting obligations	MR	Not observed
Recruitment and employment policy	MR	
Terms of reference for a clinical quality and risk management committee (or equivalent)	MR	
Clinical risk register	DR	
Guidelines for clinical note taking for allied health professionals	DR	N/A
Performance development and review form	DR	ACMHN credentialing requirement.
Staff handbook	DR	N/A
Staff support structure	DR	No.
Standard contract for private allied health providers*	DR	*Repeat, see above*
Pillar 5: Information management systems and technology		
ATAPS Client Consent Form*	MR	*Repeat, see above*
Clinical pathway for ATAPS Clients*	MR	
Contract review procedure	MR	N/A
Information management policy	MR	Not observed.
Privacy and confidentiality policy*	MR	*Repeat, see above*
Clinical record audit summary form*	DR	
Guidelines for clinical note taking for allied health professionals*	DR	
Guidelines for Conducting clinical audits*	DR	
Standard contract for private allied health providers*	DR	
Standard MOU for external providers	DR	N/A

ATAPS Suggested Resource	MR = Minimum Requirement DR = Desired Requirement	MHNIP - Case Study Observation
Pillar 6: Workforce development and credentialing		
Allied health accreditation and continuing professional development register*	MR	*Repeat, see above*
ATAPS staff induction checklist and feedback form*	MR	
ATAPS staff induction procedure*	MR	
Clinical pathway for ATAPS clients*	MR	
Clinical position description for employed AHPS	MR	Role description in the MHNIP Guidelines is open to interpretation. There was some evidence that organisations have developed their own position descriptions.
Clinical supervision policy and procedure*	MR	*Repeat, see above*
Contract review procedure*	MR	
Generic Role Description for Private Allied Health Provider*	MR	
Terms of reference for a clinical quality and risk management committee*	MR	
Continuing professional development log	DR	This is a requirement of credentialing for ACMHN.
Performance development and review form*	DR	*Repeat, see above*
Standard contract for private allied health providers*	DR	
Template MOUs and contracts for sub-contractors	DR	
Pillar 7: Clinical Accountability		
Allied health accreditation and continuing professional development register*	MR	*Repeat, see above*
ATAPS triage and referral procedure*	MR	
Clinical pathway for ATAPS clients*	MR	
Clinical position descriptions	MR	There was some evidence that organisations have developed their own position descriptions.
Clinical supervision policy and procedure*	MR	*Repeat, see above*
Contract review procedure*	MR	
Generic role description for private allied health provider*	MR	
Mandatory reporting obligations*	MR	
Recruitment and employment policy*	MR	
Terms of reference for a clinical quality and risk management committee*	MR	
Clinical risk register*	DR	
Standard contract for private allied health providers*	DR	

APPENDIX D EXCERPT OF NSW PUBLIC HEALTH SYSTEM NURSES' AND MIDWIVES (STATE) AWARD 2011

"Clinical Nurse Specialist/Clinical Midwife Specialist Grade 2" means: a Registered Nurse/Midwife appointed to a position classified as such with relevant post-registration qualifications and at least 3 years experience working in the clinical area of their specified post-graduate qualification.

The Clinical Nurse Specialist/Clinical Midwife Specialist Grade 2 classification encompasses the Clinical Nurse Specialist/Clinical Midwife Specialist Grade 1 role criteria and is distinguished from a Clinical Nurse Specialist/Clinical Midwife Specialist Grade 1 by the following additional role characteristics:

Exercises extended autonomy of decision making; Exercises professional knowledge and judgement in providing complex care requiring advanced clinical skills and undertakes one of the following roles:

- leadership in the development of nursing specialty clinical practice and service delivery in the ward/unit/service; or
- specialist clinical practice across a small or medium sized health facility/sector/service; or
- primary case management of a complete episode of care; or
- primary case management of a continuum of specialty care involving both inpatient and community based services; or
- an authorised extended role within the scope of Registered Nurse/Midwifery practice.

Incremental progression to the second year and thereafter rate shall be upon completion of 12 months satisfactory full-time service (or pro rata part time service).

"Clinical Nurse Consultant/Clinical Midwife Consultant Grade 1" means: a registered nurse/midwife appointed as such to a position approved by the public hospital or public health organisation, who has at least 5 years full time equivalent post registration experience and in addition who has approved post registration nursing/midwifery qualifications relevant to the field in which he/she is appointed, or such other qualifications or experience deemed appropriate by the public hospital or public health organisation.

APPENDIX E MHNIP COST ANALYSIS: DESCRIPTION AND FINDINGS

INTRODUCTION

The statement of requirement for the RFQ called for an analysis of the *cost benefits*. Specifically;

- overall cost benefit of the MHNIP on the health system and drivers of this benefit; and
- overall cost and benefits on the health system of extending the program to the private hospital setting.

The term 'cost-benefit' is used in this report in the generic or commonly used interpretation as a comparative study of the benefits and costs using a combination of qualitative and quantitative measures.[i] HMA considered the appropriateness of conducting a cost-effectiveness analysis (CEA) of MHNIP. However, the incomplete resource data available and great uncertainties in capacity to estimate outcomes in economically relevant units were such that CEA was deemed inappropriate. It was on this basis that a cost analysis was conducted.

This appendix presents the results of the cost-analysis. The cost analysis focusses on the level of resource use in treating patients with a severe mental illness under the MHNIP service delivery model and in the absence of MHNIP services. Therefore, the study assesses the *change* in key-resource use of patients with a severe mental illness receiving services under MHNIP and those patients with a severe mental illness that do not receive services under MHNIP. The study employs a retrospective longitudinal study design, where patients involved in the study are their own comparator.

METHOD

As part of the *Evaluation of the Mental Health Nurse Incentive Program,* 18 case studies were conducted across Australia. These case studies provided a wealth of both qualitative and quantitative information. In addition to consulting with a number of people at each of these sites, HMA also sought de-identified information on up to 50 consumers of MHNIP services at each case study organisation. For simplicity, organisation were requested to select their last 50 MHNIP consumers. Information was high-level in nature and included information on:

- age;
- sex;
- entry date (to MHNIP);
- exit date (from MHNIP, if relevant);
- HoNOS scores; and
- hospitalisations – 12 months prior to joining MHNIP and 12 months after entry into MHNIP.

Where possible, the site was asked to record the *principle diagnosis* (or reason for admission), admission/separation dates, along with length of stay (LOS) of the reported hospitalisations. The Diagnostic Related Group (DRG) for the admission was also requested, but was not expected to be known by the eligible organisation.

[i] In economics, cost-benefit analysis is used as a technical term to describe an analysis that provides information on the *absolute* benefits of one program or intervention over another. It requires all costs and benefits to be measured and reported in monetary terms. The theoretical properties of cost benefit analysis make this form of study highly attractive conceptually. In practice it is very difficult to implement comprehensively and is therefore rarely used for health sector evaluations outside the academic literature.

Two case study sites were not required to produce de-identified patient information. One service had previously provided services under MHNIP but had since ceased. The other organisation had only begun providing MHNIP services a short time prior to the case study visit. HMA received completed templates from 15 of the possible 16 case study sites. This represented de-identified patient information on 464 consumers of MHNIP services. Caution should be used when generalising the results of this cost analysis to the overall MHNIP as this sample size is not representative. A much larger sample size should be used to inform a more comprehensive economic analysis.

A pre-determined inclusion criterion was applied to each of the patients and hospitalisations. Records from two organisations were wholly excluded from the analysis on the basis that information on hospitalisations related to the patient's whole of life, rather than only the 12 months prior to entry into MHNIP (112 patients). These hospitalisations were unable to be classified into the correct 12-month period, as no dates were given. Patients were also excluded from analysis where the patient had entered MHNIP less than a year ago (after 1 September 2011) and had not yet exited the program (84 patients). Those patients who entered MHNIP after 1 September 2011, but had since exited the program were included in the analysis (31 patients). These patients were included in the analysis based on the premise that exiting the MHNIP signalled that they were not *at risk* of hospitalisation. One patient was excluded on the basis that the patient did not have an entry or exit date for the MHNIP.

A total of 267 patients included in our analysis recorded 34 hospitalisations in the 12 months prior to entering MHNIP, and 30 hospitalisations in the 12 months after entering the MHNIP. More complete information was available for hospitalisations that occurred in the 12 months *after* entering MHNIP, with a 90.0% completion rate for LOS (n=25). Length of stay was complete for 73.5% (n=25) of the hospitalisations that occurred in the 12 months *prior* to entry to MHNIP.

An expected length of stay was assigned to each of the hospitalisations missing LOS based on the average length of stay for patients with that primary mental health diagnosis in that 12-month period.

Primary and secondary mental health diagnoses, which were represented by open text fields in the data collection template, were coded into the major mental health diagnoses as presented in Tolkien II[ii]. A number of mental health diagnoses presented did not fall neatly into this structure such as adjustment disorder, personality disorder (unspecified), organic personality disorder, schizoaffective disorder and postnatal depression. These primary mental health diagnoses were not coded to the Tolkien II structure and were left as their own distinct categories. Three sub-categories of anxiety disorders (panic/agoraphobia, social phobia and generalised anxiety disorder) were combined into one category (Anxiety) due to the low specificity and completeness of the raw data.

Information on the pattern of *MBS Item* claims for MHNIP patients in the 12 months before and after entering MHNIP was unavailable. The total number of claims for Medicare Item Numbers 2710 and 2712 by MHNIP patients (regardless of when they entered MHNIP) could not be accessed for this study (this was beyond the scope of the evaluation ethics approval).

RESULTS

Analysis of the de-identified patient information was supplemented by the qualitative information collected as part of the case study and survey processes. Many of the identified

[ii] Andrews, G., *et al.*, Tolkien II : *A needs-based, costed, stepped-care model for mental health services : recommendations, executive summaries, clinical pathways, treatment flowcharts, costing structures*.

potential differences in costs were unable to be quantitatively measured and are discussed below.

MHNIP Sessional Payments

The total number of MHNIP sessions dedicated to a patient in the 12 months following entry to MHNIP was not quantitatively measured and would be difficult to quantitatively measure on a retrospective basis. Feedback from eligible organisations participating as a case study site indicated that *MBS Claim Forms* did not reliably measure the number of patients seen within a session. Several mental health nurses interviewed during the case studies advised they claimed a maximum of two patients per session, regardless of how many patients they actually supported during a session. The reason given was that any additional information above two patients was not of relevance to the organisation; funding was not affected and it reduced the administrative and data input requirements by the mental health nurse. This was also an observation reported by the ACMHN.

Many of the case study sites indicated that the average time spent face-to-face with patients during a session was approximately one hour. The frequency of contact with the mental health nurse varied greatly for those patients spoken to as part of the case study visits (up to five consumers per case study site). Patients were asked how often they *currently* see the mental health nurse. While this varied from twice a week, to once every 6 months, many indicated that at first they saw the mental health nurse weekly (and in some cases more often), but had moved to less frequent appointments as their condition improved.

From the case studies it was determined that a common frequency of contact by patients with their mental health was approximately one hour every week for the first six months following entry into MHNIP and this moved to fortnightly appointments thereafter. A contact profile of this frequency consumes 39 hours of the mental health nurse's time in the first 12 months after entry to MHNIP. This implies that a total of 11.1 sessions were dedicated, on average, to each consumer in this period. Using these estimates, the cost of providing MHNIP services ranged from $2,674 for consumers attending metropolitan practices, to $3,343 for those located in non-metropolitan areas in the 12 months following entry to MHNIP.

More detailed information on the level of service provision to patients in the 12 months following entry to MHNIP will need to be collected prospectively to place any certainty around these estimates.

MBS Items claimed

While detailed data on MBS items claimed on behalf of MHNIP patients was not available, anecdotal feedback provided during case study visits suggested that medical practitioners had shorter consultations with patients since joining MHNIP. Other medical practitioners indicated that patients receiving services under MHNIP were less likely to have unscheduled visits. For scheduled appointments, many medical practitioners said the actual duration of consultations was more closely aligned to the scheduled appointment duration.

Attributing any changing patterns in MBS Items claimed on behalf of MHNIP patients to MHNIP was difficult given that patients see their GPs for other medical conditions unrelated to their mental health. The over-all effect on MBS Items claimed in the two periods is ambiguous and should be further explored in future analysis when data is available.

Pharmaceuticals

Detailed information on the use of pharmaceuticals by patients receiving services under the MHNIP was not available. Feedback provided during the case study visits indicated that the activities of the mental health nurse improved compliance and contributed significantly to the

management and monitoring of medication for patients. However, measuring changes in pharmaceutical spending (through the PBS) for MHNIP patients may not be appropriate, as there will always be a cohort of consumers that require medication as part of the management of their condition. Furthermore, increased pharmaceutical use may also be clinically appropriate. A relevant outcome relating to pharmaceuticals under MHNIP is increased compliance and better management of medication, rather than a reduction in the use of pharmaceuticals. Improved compliance and better management of medications will result in better patient outcomes, and perhaps a reduction in the aggregate HoNOS score.

Hospitalisations avoided

A summary of hospitalisations by primary health diagnosis is provided in Table 8.5. In the 12 months prior to entry into MHNIP patients had an average hospital length of stay of 4.74 days (95% CI 2.18 – 7.30). The average length of stay was reduced to 1.99 days (95% CI 0.74 – 3.25) for this same group of patients in the 12 months after entering MHNIP. This implies an average reduction in hospital length of stay of 2.75 days per patient (95% CI -5.58 – 0.078). A paired t-test was used to confirm that the reduction in average length of stay per patient was statistically significant at the 0.10 level ($p = 0.058$).

Those with a primary mental health diagnosis of *schizophrenia* reported the greatest reduction in average length of stay (mean -20.42 days; 95% CI -37.74 – -3.10). While only 6 of the 36 patients with *schizophrenia* in the sample were hospitalised for a mental health related condition in the 12 months prior to entering MHNIP (each of these cited *schizophrenia* as the primary reason for being admitted), the time that they spent in hospital was considerably longer (mean = 126 days; median 137 days; 95% CI 78.36 – 173.64 days) than for patients with other primary mental health diagnoses.

Patients with other primary mental health diagnoses, such as *anxiety*, *depression* and *personality disorder (unspecified)*, also reported a reduction in the average length of hospital stay per patient. However, these results were not statistically significant ($p > 0.10$). It is likely that the small sample size of each of these sub-groups contributed to this variability.

Additional sub-group analysis was conducted on the basis of age and gender, but no statistically significant differences between sub-groups were present. Given the small number of patients within most of these sub-groups, this finding was not surprising.

An average per diem cost for each of the relevant DRGs were retrieved from Round 14 (2009-2010) of the *National Hospital Cost Data Collection (NHDC) Cost Weights for AR-DRG Version 6.0x (Public Hospitals)*[iii]. Each hospitalisation was assigned to a DRG based on the reported *principle diagnosis* of that hospitalisation. For those hospitalisations that did not have a *principle diagnosis (n=11)*, a DRG was assigned based on the patient's *primary mental health diagnosis*. On average, the expected cost of hospitalisations fell from $4,418 pre MHNIP intervention (95% CI $1,449 – $7,387) to $1,998 post MHNIP intervention (95% CI $746 – $3,250). A paired t-test indicated that the reduction in the expected cost of hospitalisation was again statistically significant at the 0.10 level ($p=0.066$).

A uniform per diem cost was also derived from the *NHCDC Cost Weights* by weighting the average per diem cost of a range of DRGs related to mental health[iv] by the total length of stay for that DRG. This resulted in an average per diem cost of $960 per patient. The hypothesised savings per patient from this analysis closely approximated the results under the scenario

[iii] Australian Department of Health and Ageing, 2011, Version 6 Final Service Weights, Cost Weights for AR-DRG Version 6.0x, Round 14 (2009-10), http://www.health.gov.au/internet/main/publishing.nsf/Content/Round_14-cost-reports, retrieved September 2012.

[iv] The following DRGs were used to compute the 'weighted average per diem cost': U61A, U61B, U62A, U62B, U63A, U63B, U64Z, U65Z, U66Z and U67Z.

reported above where hospitalisations were mapped to a DRG. The expected cost of hospitalisation per patient prior to joining MHNIP was $4,551 (95% CI $2,093 – $7,011). The expected cost of hospitalisation in the 12 months following entry to MHNIP was $1,912 (95% CI $706 – $3,120) per patient, a reduction of $2,639 (95% CI -$5,353 – $75). A paired t-test confirmed that this reduction was also statistically significant at the 0.10 level (p=0.058).

Caution should be taken when interpreting these savings, given the large confidence intervals. The variability of these results is the product of a small sample size, and the low rates of hospitalisations for these patients.

Presentations to emergency departments

Discussions at case study sites indicated that MHNIP patients presented less frequently to hospital emergency departments than they did prior to receiving services under the program. The exact number of attendances to emergency departments for each consumer was unknown, and unlikely to be reliably recorded on a retrospective basis. Further investigation into ED attendances for this patient cohort could be considered.

Patient Outcomes

A requirement of MHNIP is that a HoNOS measure should be completed every 90 days for patients receiving services under MHNIP. HoNOS scores were not recorded uniformly within our patient sample, with many patients having 'missing' HoNOS scores at different points since entering MHNIP. HoNOS scores were not available in the period prior to entry in the MHNIP, making comparison between treatment strategies (MHNIP and no MHNIP) difficult.

For those patients with a HoNOS score on entry to the MHNIP, and at one year (n=87), there was a statistically significant decrease in their HoNOS score (mean = -3.55; 95% CI -4.73 – -2.36; p<0.001). However, caution should be used when interpreting this change, as the mean HoNOS score for patients in this sub-group (mean = 13.69; 95% CI 13.00 – 14.38) was statistically different from the patients in our sample (mean = 15.56; 95% CI 14.86 – 16.26) (P<0.01).

DISCUSSION

MHNIP has the potential to reduce mental health related hospital admissions by approximately 3 days (95% CI -5.57 – 0.078) per patient with severe mental illness and would be associated with a cost saving per patient of around $2,600 (95% CI -$5353 – $75). This finding was statistically significant at the 0.10 level (p=0.058). These estimated savings might be conservative, given that additional savings may also be derived from a changing pattern of claims for MBS item numbers, and reduced attendances to emergency departments. This underestimate of resource utilisation may be particularly true for those patients whose illness may have been managed well, but then deteriorated rapidly (and therefore become '*at risk'*) in a short space of time before entering MHNIP. In this case, hospitalisation patterns in the 12 months prior to entry in the MHNIP may not representative of *potential hospitalisations* after entry into the MHNIP.

While the estimated savings of acute care spending ($2,600; 95% CI -$5353 – $75) for these patients is less than the indicative cost of providing the MHNIP service to these patients (metropolitan – $2,674; non metropolitan - $3,343) patient outcomes have also improved greatly. Patients and carers spoken to at case study sites overwhelmingly reported that MHNIP had assisted them in staying out of hospital and had helped them feel well and connected with their community. Qualitative information on patient outcomes, as reported by the HoNOS, have also improved during the first 12 months of receiving services under the MHNIP with an average aggregate HoNOS score reduction of 3.55 (95% CI -4.73 – -2.36).

An economic analysis incorporating a measure of patient utility was out of scope for this paper.

Table 8.5: Number of hospitalisations and length of stay, 12 months prior to entering MHNIP and 12 months after entering MHNIP by Primary Mental Health Diagnosis

Primary Mental Health Diagnosis	# Patients	Period of 12 months prior to joining MHNIP							Period of 12 months after joining MHNIP							Paired t-test value (p)
		# Hosp	# Patients hosp	Total LOS	Mean	St Dev.	95% CI Lower	95% CI Upper	# Hosp	# Patients hosp	Total LOS	Mean	St Dev.	95% CI Lower	95% CI Upper	
Adjustment Disorder	5	0	0	0					0	0	0					
Anxiety	27	3	3	98	3.63	10.71	-0.41	7.67	4	3	57	2.11	7.43	-0.69	4.91	0.696
Bipolar Disorder	33	6	6	87	2.64	6.52	0.41	4.86	6	4	195	5.91	24.73	-2.53	14.34	0.386
Borderline Personality Disorder	3	0	0	0					1	1	10	3.33	5.77	-3.20	9.87	0.42
Depression	137	12	11	297	2.17	7.83	0.86	3.48	14	9	231	1.69	7.04	0.51	2.87	0.514
Dysthymia	6	0	0	0					0	0	0					
Eating Disorders	2	0	0	0					0	0	0					
OCD	2	0	0	0					0	0	0					
Organic Personality Disorder	1	0	0	0					0	0	0					
Personality disorder	5	1	1	16	3.20	7.16	-3.07	9.47	0	0	0					0.37
Post Natal Depression	1	0	0	0					0	0	0					
Post Traumatic Stress Disorder	4	6	1	12	3.00	6.00	-2.88	8.88	4	1	18	4.50	9.00	-4.32	13.32	0.39
Schizoaffective Disorder	2	0	0	0					0	0	0					
Schizophrenia	36	6	6	756	21.00	52.67	3.79	38.21	1	1	21	0.58	3.50	-0.56	1.73	0.027
Unknown	3	0	0	0					0	0						
Total	267	34	28	1266	4.74	21.35	2.18	7.30	30	19	532	1.99	10.48	0.74	3.25	0.058

APPENDIX F VARIABILITY IN HONOS SCORES AT TIME OF ENTRY

Differences in the profile of HoNOS scores reported upon entry to the MHNIP for each of the case study sites was explored using a one-way analysis of variance. The resulting F-Statistic was 376 with 15/446 degrees of freedom, and a p-value of 0.000, indicating that there is overwhelming evidence of some differences between the mean HoNOS scores amongst the 15 case study sites. Table 8.6 below summarises the pair-wise comparisons where the mean HoNOS Score was considered significantly different according to Tukey's Honest Significant Difference (HSD) method.

Table 8.6: Pair-wise comparisons where the mean HoNOS score at the time of entry to MHNIP was considered significantly different according to Tukey's Honest Significant Difference (HSD) method

Case study pairwise comparison	Mean Difference	95% CI Interval		P-value
		Lower Limit	Upper Limit	
Site I / Site L	4.14	0.00	8.28	0.05
Site M/ Site L	5.30	0.30	10.30	0.03
Site K / Site L	6.02	1.80	10.24	0.00
Site M / Site L	6.46	2.31	10.61	0.00
Site F / Site L	8.13	3.60	12.67	0.00
Site H / Site L	9.32	5.31	13.33	0.00
Site A / Site B	10.00	1.21	18.79	0.01
Site B / Site C	Centre 11.30	5.13	17.47	0.00
Site N / Site O	5.03	0.22	9.84	0.03
Site K / Site O	5.75	1.75	9.75	0.00
Site M / Site O	6.19	2.27	10.11	0.00
Site F / Site O	7.86	3.53	12.20	0.00
Site H / Site O	9.05	5.28	12.83	0.00
Site A / Site O	9.73	1.05	18.41	0.01
Site B / Site O	11.03	5.01	17.05	0.00
Site B / Site P	3.62	0.39	6.85	0.01
Site J / Site P	4.51	0.15	8.86	0.04
Site N /Site P	4.78	0.50	9.06	0.01
Site K/ Site P	5.50	2.16	8.84	0.00
Site M / Site P	5.94	2.69	9.19	0.00
Site F / Site P	7.61	3.88	11.35	0.00
Site H / Site P	8.80	5.73	11.88	0.00
Site H/ Site P	9.48	1.08	17.88	0.01
Site B / Site P	10.78	5.18	16.38	0.00
Site K / Site B	4.97	0.44	9.49	0.02
Site D / Site B	5.40	0.95	9.86	0.00
Site H / Site B	7.08	2.26	11.90	0.00
Site H / Site I	8.27	3.94	12.60	0.00
Site A / Site B	8.94	0.01	17.88	0.05
Site C / Site B	10.24	3.87	16.62	0.00
Site D / Site E	3.26	0.01	6.51	0.05
Site F / Site G	4.93	1.20	8.67	0.00
Site H/ Site E	6.12	3.05	9.20	0.00
Site C / Site E	8.10	2.50	13.70	0.00
Site F / Site I	3.99	0.26	7.73	0.02
Site H /Site I	5.18	2.11	8.26	0.00
Site C / Site B	7.16	1.56	12.76	0.00
Site H / Site J	4.30	0.06	8.54	0.04
Site H / Site K	3.30	0.11	6.49	0.03

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[7] This section of the report summarises information contained in Mental Heath Nurse Incentive Program, *Program Guidelines*, available at http://www.medicareaustralia.gov.au/provider/incentives/files/2111-1209-mhnip-guidelines.pdf

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