
Evaluation of the pilot of the Mental Health Nurse Incentive Program in the Private Hospital Setting

**ACCOMPANYING REPORT 3:
ANALYSIS OF MEDICARE MHNIP DATA REPORT**

presented to

The Department of Health and Ageing, Nursing Section

by

The Australian Institute for Social Research



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1 EXECUTIVE SUMMARY

The Australian Institute for Social Research (AISR) was commissioned by the Nursing Section of the Department of Health and Ageing, Canberra to evaluate the Piloting of the *Mental Health Nurse Incentive Program* (MHNIP) in private hospital settings. Specifically, the Department sought these four outcomes from the evaluation.

- Development of an evaluation framework for Piloting the inclusion of private hospitals as eligible organisations under the Mental Health Nurse Incentive Program.
- Development of data collection tools to undertake research.
- Analysis of data collected across the Pilot sites including, but not limited to:
 - ⇒ Analysis of patient outcomes;
 - ⇒ Analysis of participant (ie. mental health nurses, general practitioners and psychiatrists) outcomes;
 - ⇒ Analysis of the views of Mental Health Nurses (ie. has the Pilot contributed to improvement in patient care).
- Submission of a final report outlining the effectiveness of the Pilot and options for future program enhancements.

The review has focused on six of a possible seven Pilot sites. These are located in –

- Adelaide
- Perth
- Taree
- Toowong
- Warrnambool
- Essendon (their Mental Health Nurse began employment in the second half of March 2009. The evaluators have interviewed the psychiatrist attached to the Essendon Pilot site, and obtained *preliminary* data for the Review from the Mental Health Nurse, the psychiatrist and six clients).

This report is *Accompanying Report #3* to the Final Report of the evaluation. It focuses on the analysis of Medicare data relating to MHNIP Pilot sites, and should be read in conjunction with *Accompanying Report 2*, which focuses on the analysis of site data.

1.1 Methodology

A formal request was made via the Department to obtain an extract of MHNIP related Medicare data for the purpose of examining service utilisation and service activity profiles within and across sites. The specifications for Medicare data extract were designed in consultation with Medicare Australia, with access arranged for the evaluators by the Department of Health and Ageing.

The Medicare data were extracted and provided to the evaluators in two portions, to allow analysis to begin prior to all data becoming available. The two portions of data were:

- MHNIP claims processed from Program inception through to end of January 2009 (extracted end of February 2009)
- MHNIP claims processed from January 2009 to end of March 2009 (extracted end of April 2009).

The datasets comprised information from the MHNIP claim forms submitted to Medicare by each site, and contained confidentialised client identifiers which enabled the evaluators to undertake comprehensive analysis without compromising confidentiality.

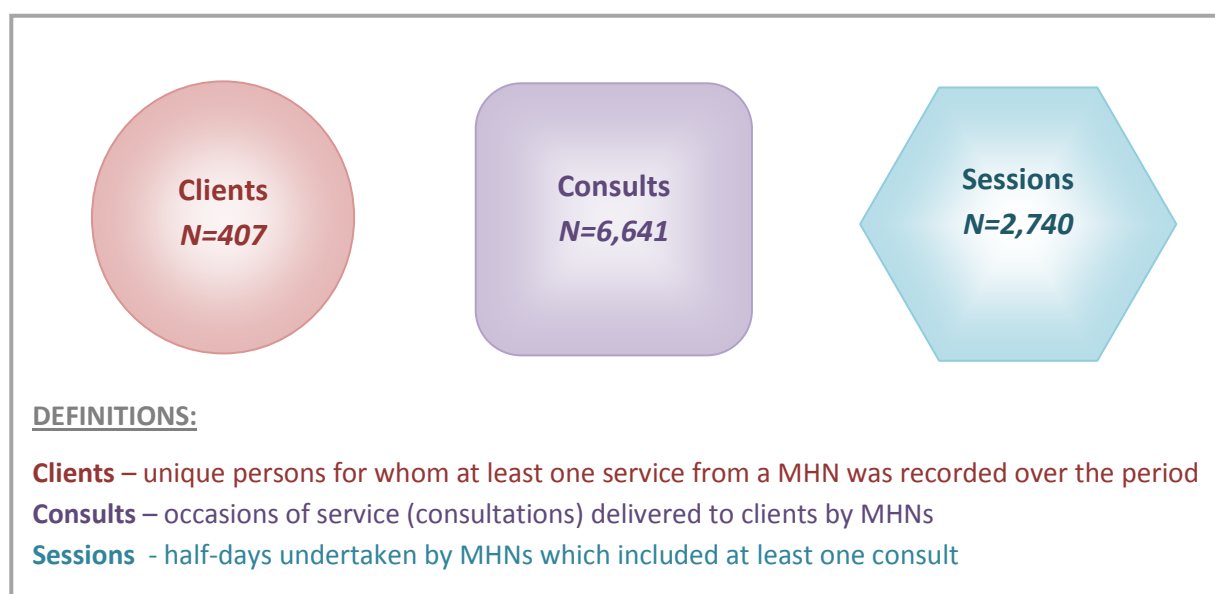
A complete dataset containing data for all sites and all available months was constructed and analysed using SPSS V15.0 and SPSS V17.0. Unique sessions (half-days undertaken by Mental Health Nurses) were identified by constructing a numeric code representing organisation name, Mental Health Nurse name, session date and session number. Unique clients were identified by constructing a numeric code for organisation name and the site-specific confidentialised ID.

According to the data provided by Medicare in relation to Program inception to Jan/Feb 2009 –

- ⇒ A total of **2,740** Mental Health Nurse sessions (ie. half-days) had been funded.
- ⇒ **More than 6,600** consults had been provided.
- ⇒ A total of **407** clients had received a service.

The number of sessions, clients and consults identified by this method are shown below, together with definition of key terms.

Clients, Consults and Sessions in the Medicare dataset – and definition of terms

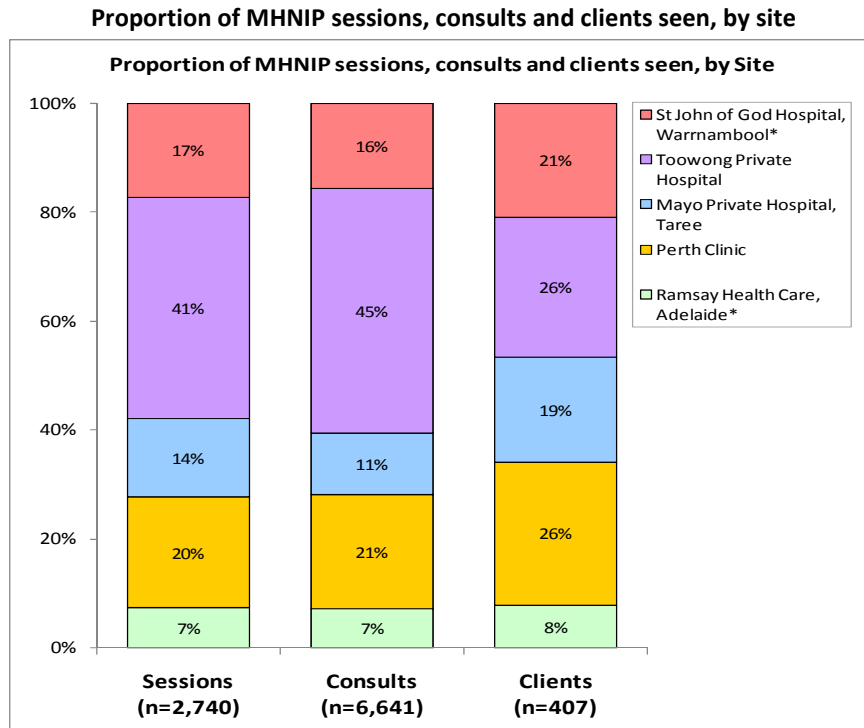


1.2 Summary of Key Findings

1.2.1 Summary of sessions, consults and clients seen by Site

Analysis of the number of sessions, consults and clients highlights operational differences between sites.

The site with the largest proportion of consults (45.0%) and sessions (41.0%) is Toowong Private Hospital, and shares with the Perth Clinic, the highest proportion of clients (26.0%) across the Program as a whole. The smallest proportion of consults, sessions and clients is held by the Adelaide site.



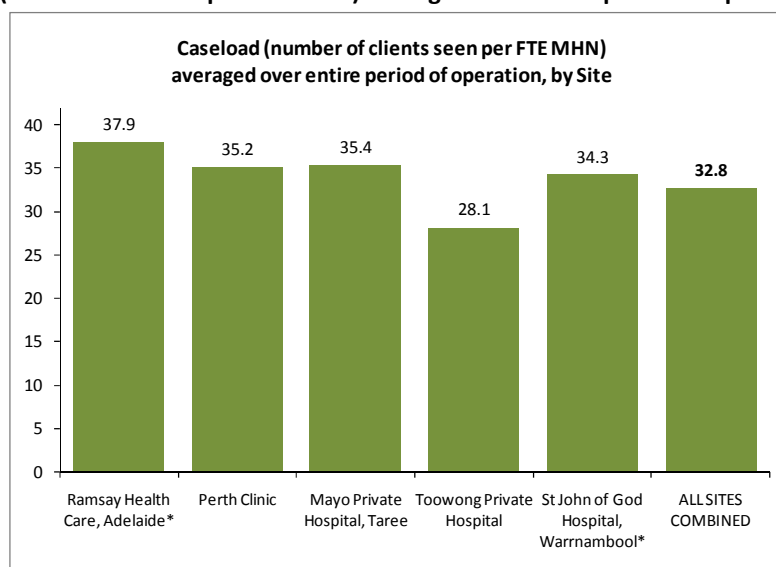
* Information not available for Ramsay Health Care and St John of God Hospital for Dec-08 and Feb-09, therefore numbers for those sites are underestimates.

1.2.2 Caseload patterns

Calculating caseloads based on the number of unique clients seen per FTE Mental Health Nurse reduces the influence of month-by-month variations and provides a picture of service activity which is unrelated to the number of Mental Health Nurse sessions per month.

- ⇒ **The average caseload (number of clients seen per FTE Mental Health Nurse, averaged over 3 months) tends to remain within the range of 30 to 35 clients per FTE Mental Health Nurse, when data from all sites are combined.**
- ⇒ **The caseload averaged across all sites and the entire period of MHNIP was 32.8 clients per FTE Mental Health Nurse.** (Note that this average for all sites is strongly influenced and lowered by the data from Toowong Private Hospital, as Toowong's operation comprises 41.0% of all MHNIP sessions.)
- ⇒ **Caseloads tend to vary over time, across phases of operation and as different procedures and staffing profiles are introduced at each site.**

Caseload (no of clients seen per FTE MHN) averaged over entire period of operation, by site



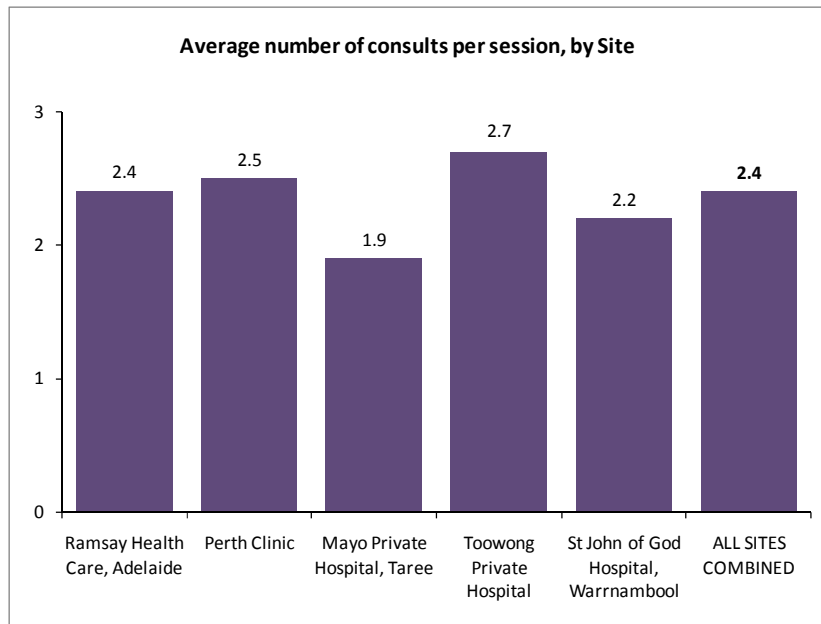
* Caseloads are based on available data; note that information was not available for Ramsay Health Care and St John of God Hospital for Dec-08 and Feb-09.

MHNIP Guidelines require a **current** minimum case load of 20 individual patients with a severe mental disorder per week, averaged over three months, and an expected **annual** caseload per FTE Mental Health Nurse of **35** clients with a severe mental disorder, most of whom being expected to require ongoing care over the course of the year. On this basis, the Adelaide, Perth, and Taree sites have met or exceeded the Guideline, the Warrnambool site is just below at 34.3 (and is a relatively newly established site) while Toowong is well below at 28.1.

1.2.3 Consults within sessions

- ⇒ As the Figure below indicates, **the average number of consults per session across all sites was 2.4**, ranging from 1.9 at Mayo Private Hospital to 2.7 at Toowong.
- ⇒ **This appears to be in line with the MHNIP Guideline of at least two individual patients (with a severe mental health disorder) per session.**
- ⇒ **The median number of consults across every site was 2.0 – again conforming with MHNIP Guidelines**, with a minimum of 1 consult per session and a maximum of 7 consults per session (2 cases only).

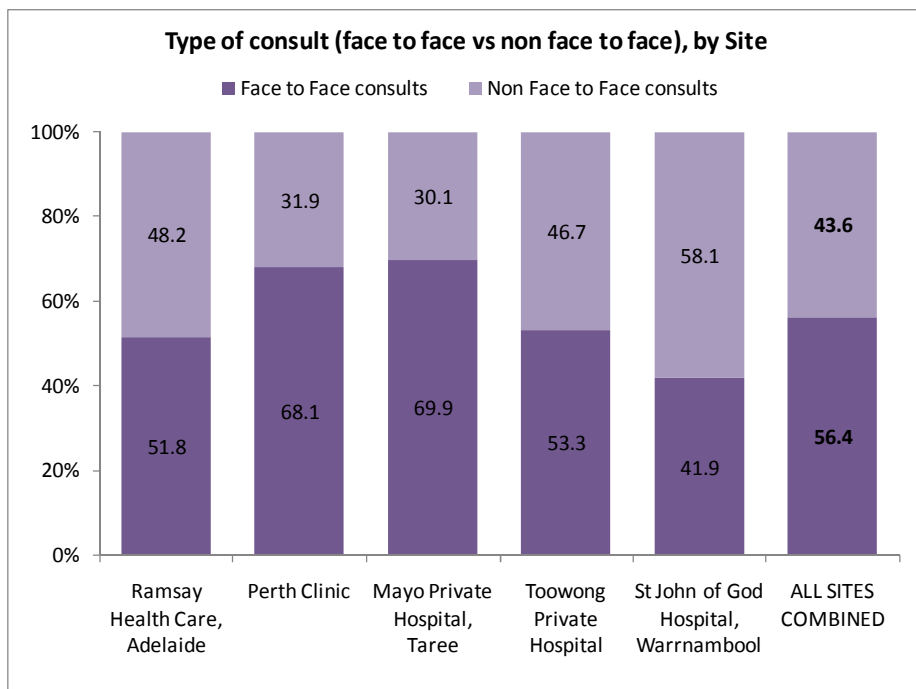
Average number of consults per session, per site



1.2.4 Types of consult

The Medicare claim information records whether each consult was face to face or not. Sites differed in the proportion of consults which were face to face (see figure below) from 42.0% at St John of God Hospital to 70.0% at Mayo Private Hospital. This may be related to operational differences such as the extent of telephone contact routinely undertaken at some sites.

Type of consult (face to face vs non face to face) by site



1.2.5 *Number of consults per client*

- ⇒ The number of consults per client ranged from 1 consult to 124 consults, with an **average of 16.3 consults per client**, as shown in

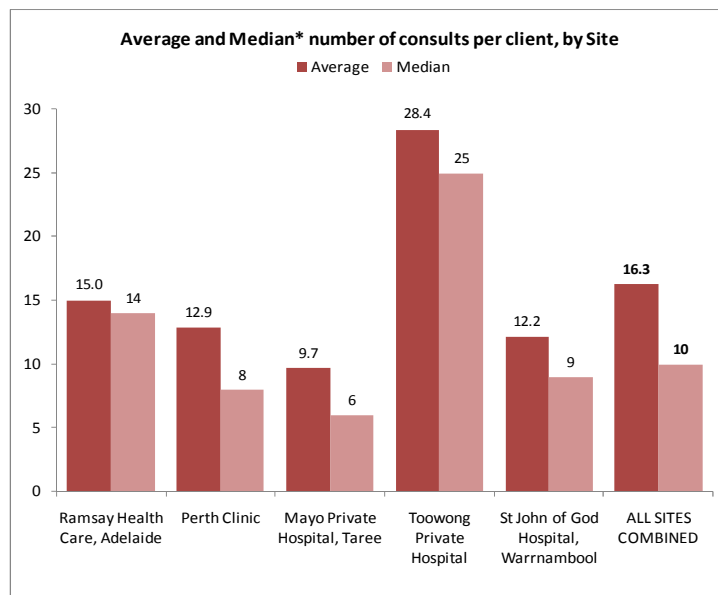
Figure 20.

- ⇒ As would be expected the distribution is strongly skewed; the number of consults most frequently provided per client was **2 consults** (38 clients, 9.3% of all clients), followed closely by 1 consult (36 clients, 8.8%).

1.2.6 Number of face to face and non face to face consults per client

- ⇒ The **average** number of **face to face consults per client** varies from **5.1** at St John of God Hospital to **15.2** at Toowong Private Hospital.
- ⇒ The **ratio of face to face consults to non face to face consults per client** ranges from **0.7** at St John of God Hospital (ie. clients receive more non face to face consults on average than face to face consults), through to an almost equal number of face to face vs non face to face consults at the Adelaide and Toowong sites, to **more than 2** face to face consults for every non face to face consult at the Perth Clinic and Mayo Private Hospital.
- ⇒ Across all sites, **43.0%** of clients had received between **1 and 5 face to face** consults during their time in the Program, and at the other extreme **12.0%** of clients had received **21 or more** face to face consults.

Average and median number of consults per client, by Site

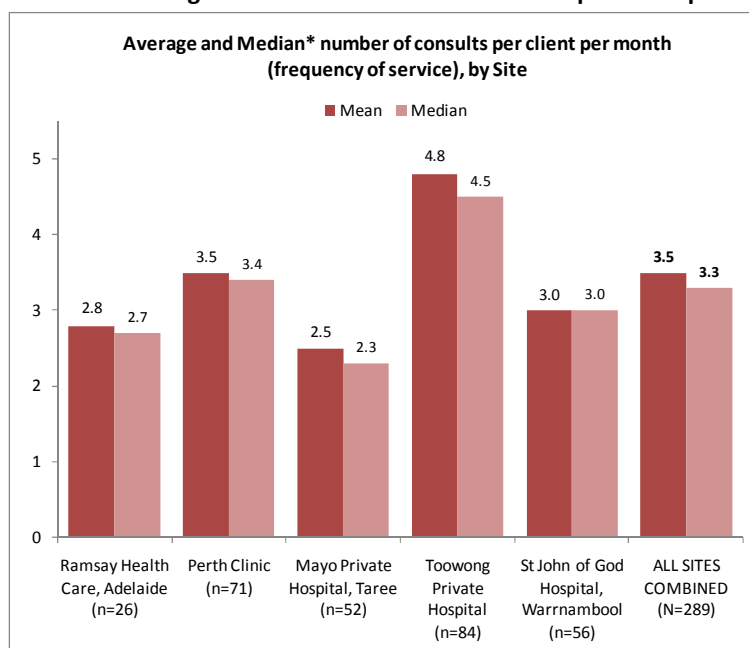


1.2.7 Frequency of service (number of consults per client per month)

To derive an indication of frequency of service, the number of consults per month was calculated *for clients who had been in the program for at least one month*.

- ⇒ **On average, clients received approximately 3.5 consults per month** during their time in the Program.

Frequency of service - average and median number of consults per client per month, by Site



- ⇒ In terms of *types of consult*, the number of *face to face* consults per client per month averaged **2.0** for all sites combined, and *non face to face* consults per client per month averaged **1.5**.

1.3 Client characteristics and activity

1.3.1 Demographic information

- ⇒ Of the **407** clients who received a service under the MHNIP, **63.0%** were female. The **gender** profile was similar across sites, ranging from 59.0% females at Ramsay Health Care Adelaide to 68.0% females at Perth Clinic.
- ⇒ The **average age** of clients at each site ranged from 40 years at Perth Clinic and Toowong to 53 years at Mayo Private Hospital. The average age for the entire client group was **44 years**.
- ⇒ **Inner Regional** areas are well-represented in the client group (**36.0%** of clients). A further **5.0%** of clients were living in postcodes classified as Outer Regional, and the remaining 58.0% of clients were living in a major city.

1.3.2 Time spent in program

- ⇒ The **average number of months that all clients had spent in the Program to date was 4.5 months** (SD 3.9 months, **Median** 3.7 months). Note that this includes clients who are still receiving a service as well as clients who have exited the program.

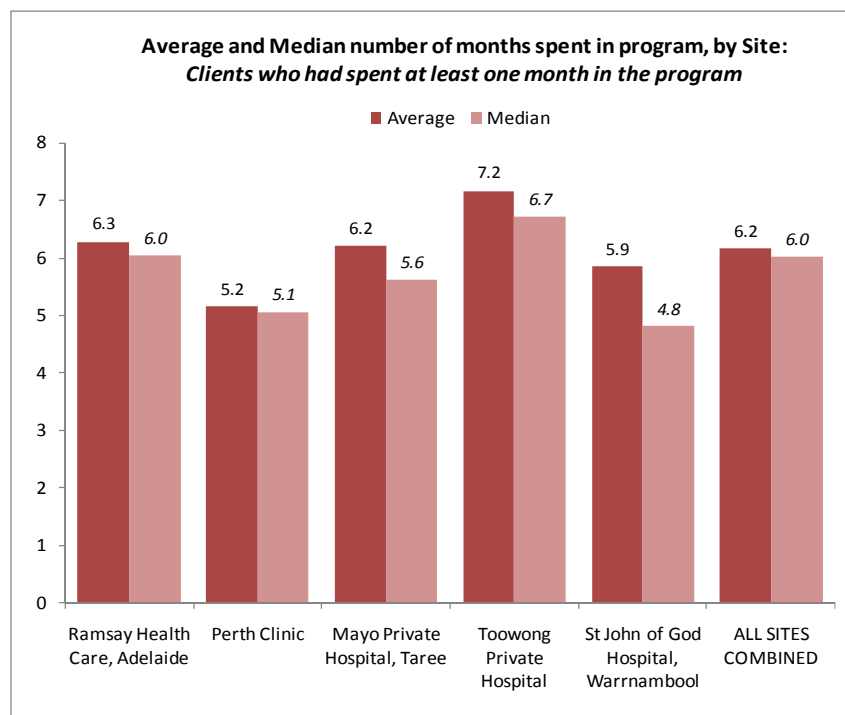
Nearly **one-third** of all clients appeared to spend **less than a month** in the Program, perhaps indicating difficulties in engaging some clients. The percentage of clients who had spent less than one month in the program varies quite substantially between some sites, and this will influence the statistics (average and median). Excluding clients who may not have engaged with the service (ie clients who spent less than a

month in the Program) from the analysis produces more reliable results for average number of months spent in the program, as shown in the figure below.

- ⇒ At the time of analysis, a total of **289** clients had been in the Program for more than one month.
- ⇒ **Across all sites, this group of clients had been receiving MHNIP services for an average of 6.2 months and a median of 6 months.**
- ⇒ This ranged from a low of 5.2 average (and 5.1 median) months at the Perth site, to a high of 7.2 average (and 6.6 median) months at the Toowong site.

Note however that many of these clients would be continuing in the Program beyond the scope of the Medicare data provided, and therefore the statistics on time spent in the Program are likely to be **underestimates** at this stage.

Average and Median length of time (months) clients spent in the Program, by site
Clients who had spent at least one month in the program (N=289)



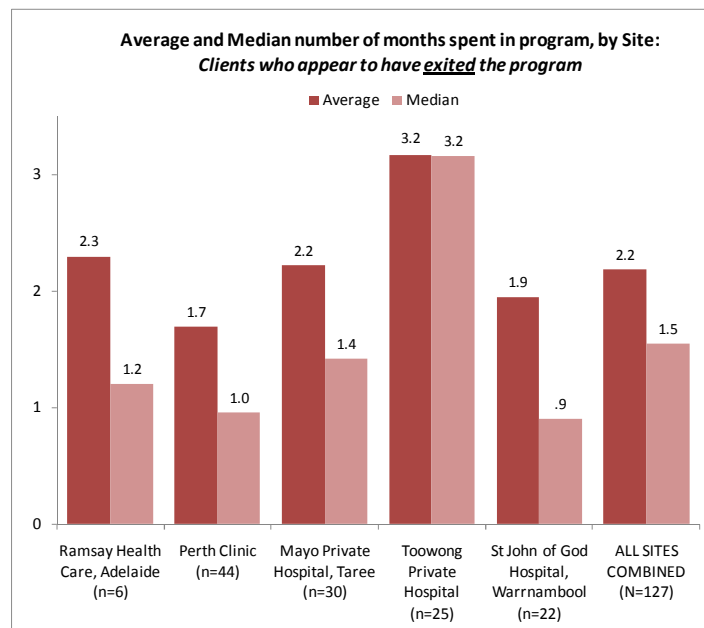
1.3.3 Time spent in program – Clients who appear to have Exited the program

The Medicare data do not capture whether or not clients have exited the program. As a proxy measure the evaluators identified those clients who *appeared to have exited* the program by examining their last date of service.

Using information from the analysis of Site Data (*Accompanying Report 3 to the Final Report of the evaluation*) regarding the proportion of clients who exited the service (30%), a cutoff for the last date of service was set as 31st October 2008, which classified **31%** of the client group (127 clients) as having exited the program.

- ⇒ The **average length of time spent in the Program** between first service and last service for the clients who appear to have exited the service is **2.2 months (median 1.5 months)**.
- ⇒ If the MHNIP continues and longer-term clients exit the service, the average length of time spent in program is expected to increase.
- ⇒ *Almost a quarter* of clients who appear to have exited the Program had spent *less than one week* in the Program, and a further *20.5%* spent *between one week and one month* in the program.

Average and median length of time (months) that clients spent in the Program, by Site:
Clients who appear to have exited the Program



2 INTRODUCTION

The Australian Institute for Social Research (AISR) was commissioned by the Nursing Section of the Department of Health and Ageing, Canberra to evaluate the Piloting of the *Mental Health Nurse Incentive Program* (MHNIP) in private hospital settings. Specifically, the Department sought these four outcomes from the evaluation.

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The Medicare data were extracted and provided to the evaluators in two portions, to allow analysis to begin prior to all data becoming available. The two portions of data were:

- MHNIP claims processed from program inception through to end of January 2009 (extracted end of February 2009)
- MHNIP claims processed from January 2009 to end of March 2009 (extracted end of April 2009).

The period of time (months) for which data were supplied by Medicare Australia, for each site, is shown in the table below.

Table 1: Scope of Medicare data provided, by Site

Scope of Medicare data provided				
Site	First month	Last month	Months within the period for which data was <u>not</u> provided*	No. of months for which data was provided
Ramsay Health Care, Adelaide	Mar 2008	Jan 2009	Dec 2008	11
Essendon Private Hospital	Not operating during the period			0
Perth Clinic	Feb 2008	Feb 2009		13
Mayo Private Hospital, Taree	July 2007	Feb 2009		20
Toowong Private Hospital	Feb 2008	Feb 2009		13
St John of God Hospital, Warrnambool	Mar 2008	Jan 2009	Dec 2008	11

* These months of data had not been processed at the time that the data was extracted by Medicare.

As shown in **Table 1**, Medicare did not provide the evaluators with data for December 2008 and February 2009 for Ramsay Health Care (Adelaide) and St John of God (Warrnambool). This was due to the timing of the data extractions – claims which had not been processed by Medicare at the time that they extracted the data were not included in the datasets provided to the evaluators.

2.1.2 Content of Medicare datasets

The datasets comprised information from the MHNIP claim forms submitted to Medicare by each site, and contained confidentialised client identifiers which enabled the evaluators to undertake comprehensive analysis without compromising confidentiality. Each record (row) in the datasets provided information about one consultation (ie one occasion of service) provided to a client by a Mental Health Nurse (MHN). The datasets contained the following data fields:

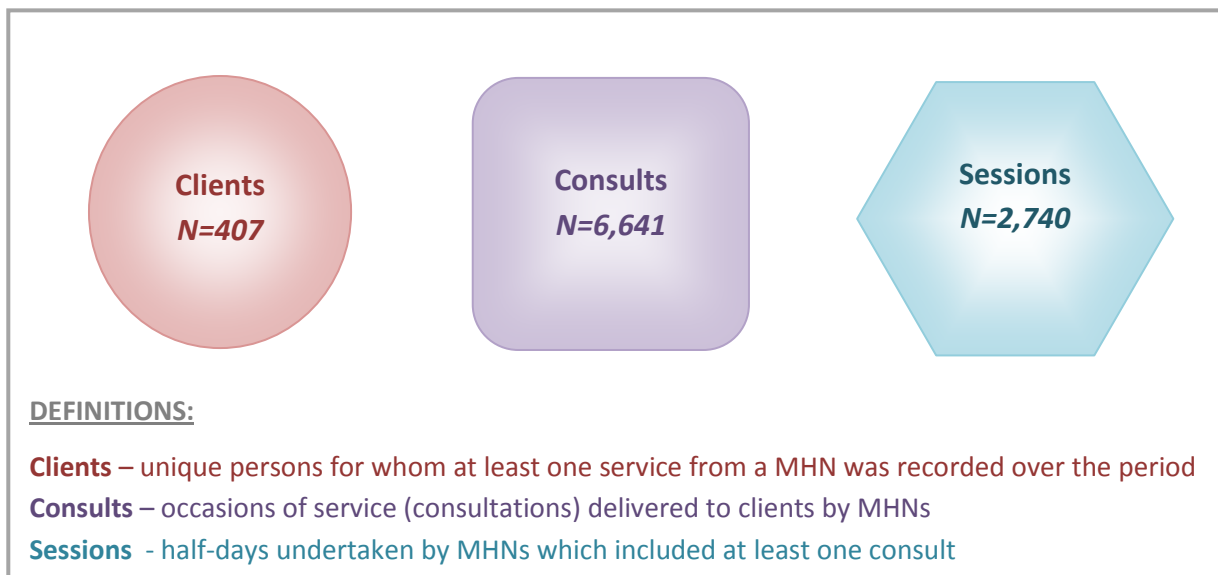
- Organisation Name
- Nurse Name
- Session Number
- Session Date
- Patient Number (ie. site-specific confidentialised ID)

- Patient Date of Birth
- Patient Gender
- Patient Postcode
- Face to Face service indicator (ie. whether the service provided was face to face or not).

2.1.3 Data manipulation and analysis

A complete dataset containing data for all sites and all available months was constructed and analysed using SPSS V15.0 and SPSS V17.0. Unique sessions (half-days undertaken by Mental Health Nurses) were identified by constructing a numeric code representing organisation name, Mental Health Nurse name, session date and session number. Unique clients were identified by constructing a numeric code for organisation name and the site-specific confidentialised ID. The number of sessions, clients and consults identified by this method, together with definition of these three key terms, are shown in *Figure 1*.

Figure 1: Clients, Consults and Sessions in the Medicare dataset – and definition of terms



Note that Mental Health Nurses may undertake, and be funded for, some sessions which do *not* include any consults. Sessions which entirely comprise non-client activities such as administration, training and coordination will not be included in the number of sessions shown in *Figure 1*.

To illustrate this, Medicare Australia also provided the evaluators with a table showing the total number (tally) of Mental Health Nurse sessions funded at each site according to claims processed by the end of April 2009.

Table 2 contrasts this information against the number of sessions containing at least one consult, extracted from the consultation-based dataset as detailed above.

Table 2: Number of sessions undertaken by MHNs - contrasting sources

Site	Medicare's tally of sessions funded as at April 2009*	No. of sessions identified from consultation-based dataset	Difference
Ramsay Health Care, Adelaide	245	203	42
Perth Clinic	558	554	4
Mayo Private Hospital, Taree	395	394	1
Toowong Private Hospital	1119	1119	0
St John of God Hospital, Warrnambool	535	470	65
Total	2852	2740	112

* Extracted by Medicare from claims processing data on 28/04/2009.

The only discrepancies exist for Ramsay Health Care (Adelaide) and St John of God Hospital (Warrnambool), and appear to be equivalent to approximately one month's worth of activity at those sites. These discrepancies are due to incomplete processing of data from those sites at the time the consultation-based dataset was extracted by Medicare for the evaluators, as mentioned in *Section 2.1.1* of this report.

The analysis presented in the remainder of this report uses the consultation-based dataset, meaning that it contains information about sessions which:

- contained at least one client consult, and
- had complete claim information processed by Medicare at the time the data was extracted for the evaluators.

2.1.4 Comparability of Medicare data and Site Data

While the period of service delivered covered by the Medicare data and Site Data differs somewhat due to the timing of the extraction/compilation of each source, the **demographic** characteristics of clients are very **consistent** between both sources – see **Table 3**.

Table 3: Comparability of data sources: client characteristics

Client Characteristic	Medicare Data	Site Data
No. of clients in the program for whom information was provided	407	271
Gender – Female	63.0%	61.0%
Age – Average	44.4 years	45.8 years
Remoteness Area of Postcode - Major city	58.0%	61.0%

There are however some differences between the two sources in terms of number of clients and other service characteristics – see **Table 4**.

Table 4: Comparability of data sources: service characteristics

Service Characteristic	Medicare Data	Site Data
No. of clients who received at least one service	407	271
First service date recorded	30/7/2007	7/10/2007
Last service date available ¹	27/02/2009	28/05/2009
Average number of months ² in program from entry to exit ³	2.2	5.7
Months in program – Less than 1 month	37%	6%
Average number of face-to-face services per client ⁴	10.1	13.9
Average number of face-to-face services per client per month ⁵	2.0	2.0

Notes:

1 The last service date recorded in the Site Data was dependent upon when staff at each site were able to undertake the data compilation. Warrnambool provided data up to mid-April 2009, Taree and Toowong provided data to end of April 2009, Adelaide provided data to mid-May 2009, and Perth provided data to end of May 2009.

2 The two analyses differed in the method used for calculating the number of months between two dates. The Site Data analysis used a formula returning whole months, whereas fractional months (based on number of days) was calculated for the Medicare Data analysis. Therefore the number of months shown for the Site Data may be an overestimate.

3 The Medicare Data does not contain an exit indicator. An indicator of likely exit was determined for each client based on how long ago their last service occurred. Clients who had not received any service after 31st October 2008 were classified as “appeared to have exited” the service.

4 Includes only those clients who received at least one face-to-face service.

5 Includes only clients who were in the program for at least 1 month.

The major difference between the two sources is that *fewer clients* were recorded in the Site Data than the Medicare data (271 versus 407), despite the Site Data being reported for a longer time period.

In addition, clients who spent only a *short time* in the program (less than one month) are strongly represented in the Medicare data (37% of all clients) but not in the Site Data (6% of all clients).

This in turn influences the **average number of months in the Program (5.7 months** according to the Site Data, **2.2 months** according to the Medicare data).

Note that when clients who spent less than a month in the Program are excluded from the Medicare data (see Section 3.4.3), the average number of months in program rises to an *average of 6.2 months*, consistent with the results from the Site Data analysis.

One possible explanation for those apparent differences in the results from the Medicare Data and the Site Data involves the data gathering procedures for the Site Data. Sites were asked to compile data for the evaluation on as many clients as possible; some sites may have chosen to focus on providing information about clients for whom change over time could be assessed, as that was a major reason for collecting the data. Clients who were not successfully engaged by a service, but who did receive a brief period of service/contact initially, may have been excluded from the data provided to the evaluators by some sites. *Examination of client identifiers and associated demographic data in the Medicare dataset was checked*

thoroughly by the evaluators to exclude the alternative possibility that clients may have been represented by more than one identifier in the Medicare data.

Another consequence of the greater representation in the Site Data of clients who spent less than one month in the program was the inflation of the figure for average number of face to face services per client (Site Data 13.9 services, Medicare data 10.1 services).

When the number of months spent in the Program is taken into account, the two sources were consistent in demonstrating **an average of 2.0 face to face services per client per month.**

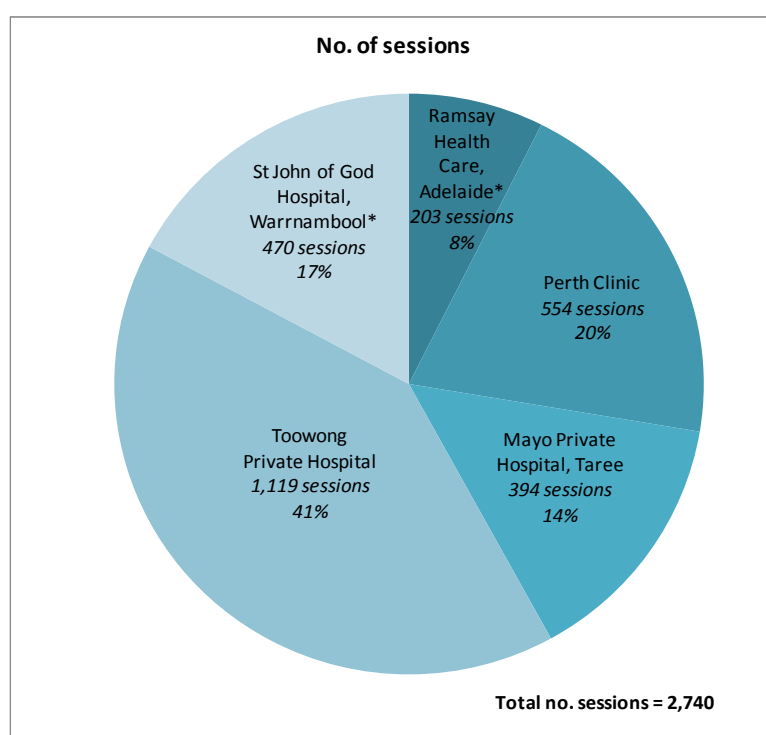
3 FINDINGS

3.1 Implementation of the Program over time

3.1.1 MHN Sessions

According to the data provided by Medicare in relation to Program inception to Jan/Feb 2009, a total of **2,740** Mental Health Nurse sessions (ie. half-days) had been funded. The largest MHNIP operation at that time was at Toowong Private Hospital site, which had 1,119 sessions funded, representing 41% of all MHNIP sessions funded to Jan/Feb 2009. *Figure 2* provides details.

Figure 2: Number of sessions funded, by site, since Program inception

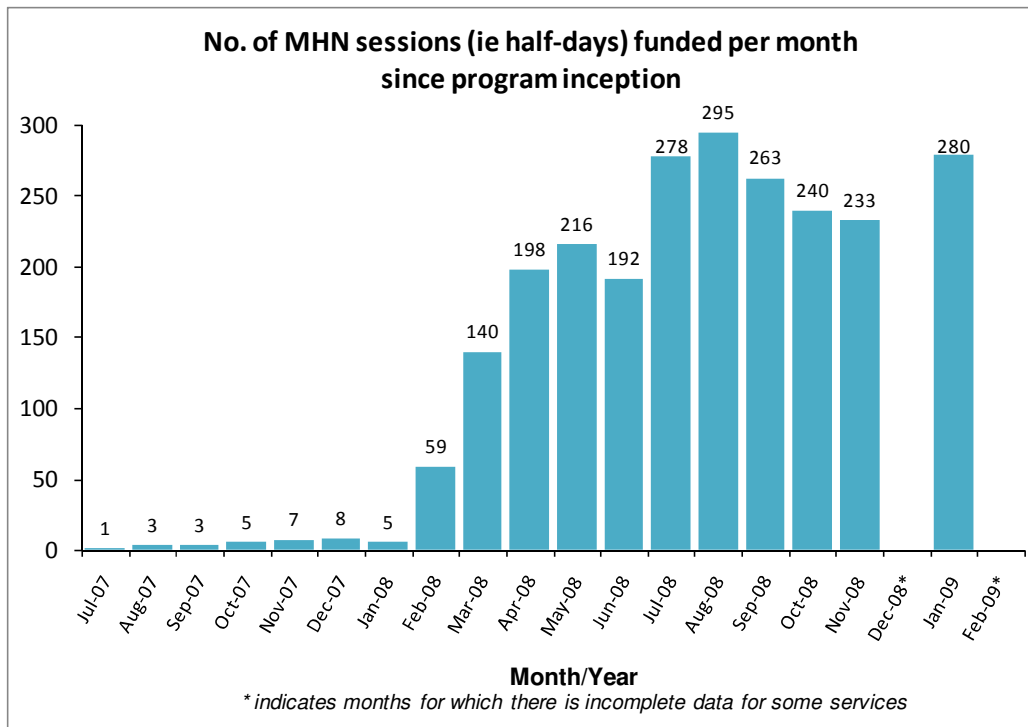


* Information was not available for Ramsay Health Care and St John of God Hospital for Dec-08 and Feb-09, therefore numbers for those sites are underestimates.

The implementation of the MHNIP over time in terms of funded sessions is shown in *Figure 3*.

Month-to-month variations in number of sessions across the first year of implementation reflect the commencement and growth of the MHNIP across the five sites. The small variations across the last 6 months shown (ie after most sites have reached their capacity) are mostly reflected in the particular number of working days in each calendar month.

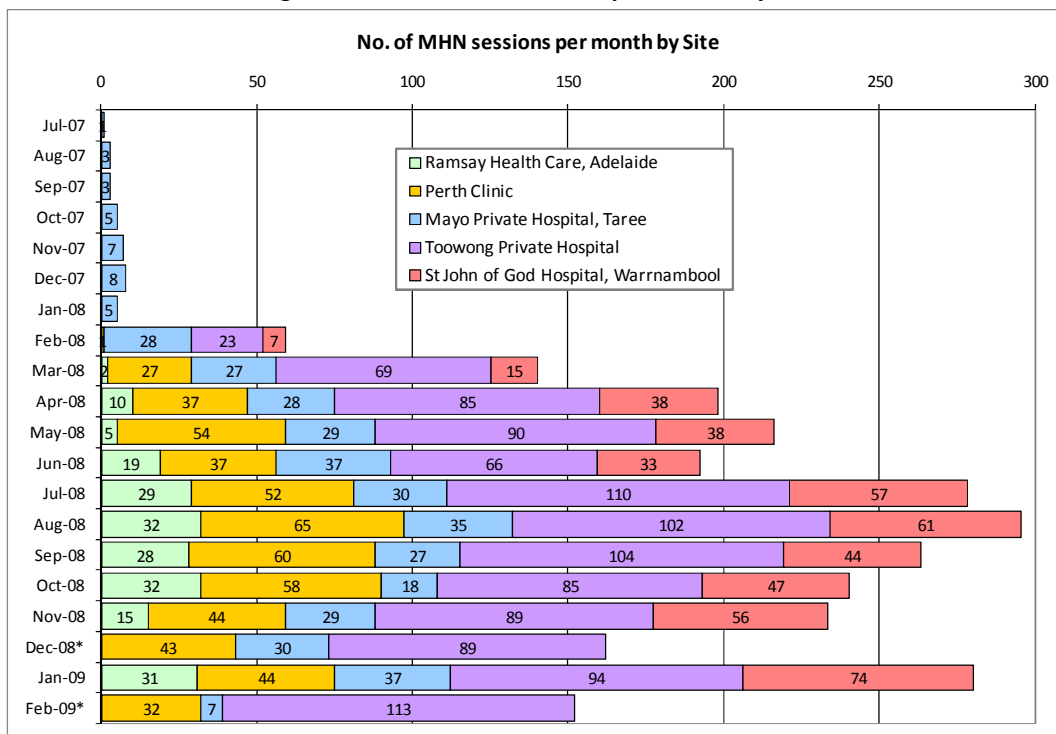
Figure 3: Number of sessions funded per month since Program inception



* The total number of sessions for December 2008 and for February 2009 has been excluded because no information was available for Ramsay Health Care and St John of God Hospital for those months.

Each site's contribution to the number of sessions per month is shown in *Figure 4*.

Figure 4: No of sessions funded per month, by site



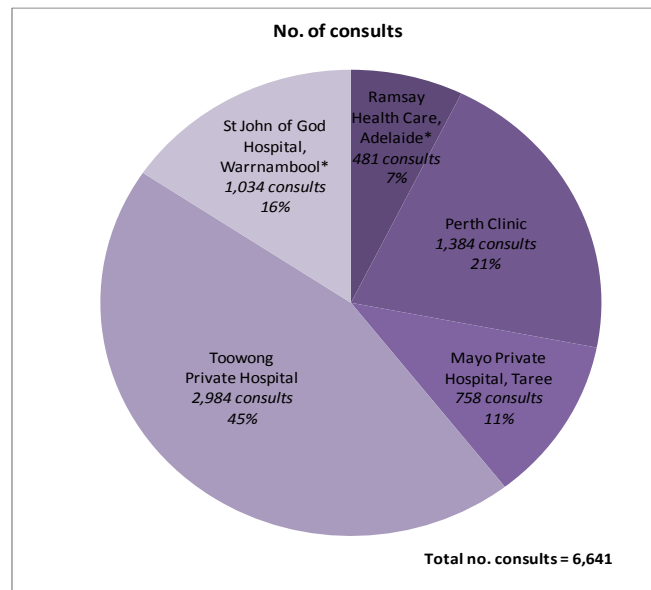
* Information not available for Ramsay Health Care and St John of God Hospital for Dec-08 and Feb-09.

3.2 Service activity

3.2.1 Consults

More than 6,600 consults had been provided under the MHNIP to Jan/Feb 2009, ranging from 481 consults at Ramsay Health Care Adelaide (a small operation with one Mental Health Nurse, and which commenced in March 2008), to 2,984 consults at Toowong Private Hospital (a large operation employing several Mental Health Nurses). *Figure 5* provides details.

Figure 5: Number of consults, by site, since Program inception

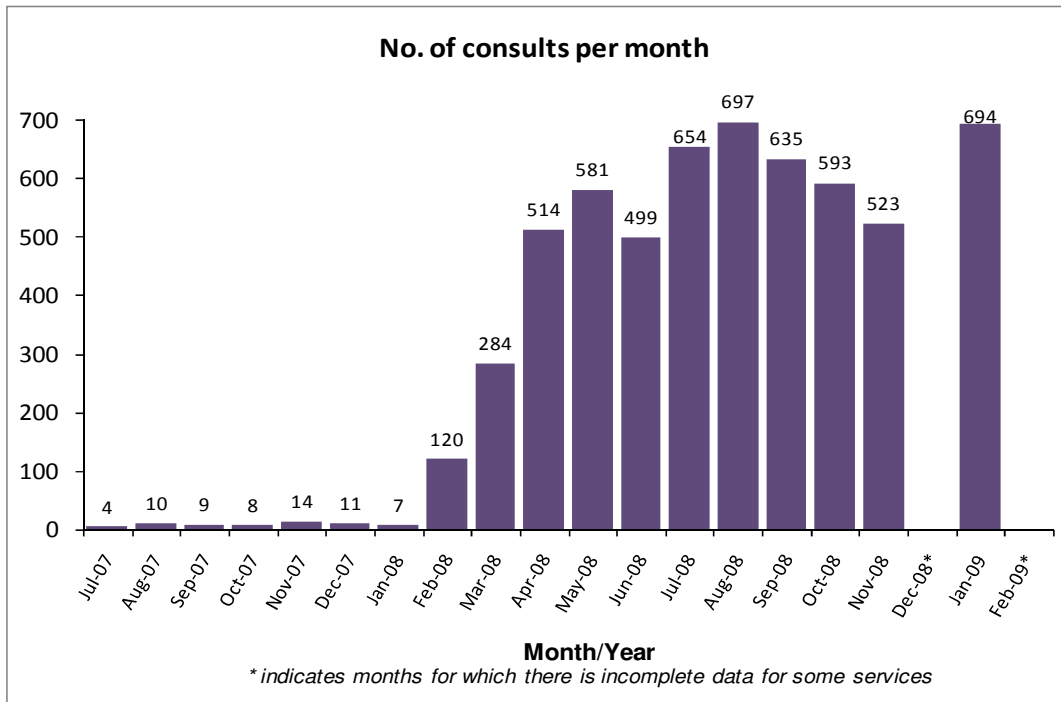


* Information was not available for Ramsay Health Care and St John of God Hospital for Dec-08 and Feb-09, therefore numbers for those sites are underestimates.

The total number of consults per month is shown in

Figure 6. The number of consults per month is primarily dependent on the number of Mental Health Nurse sessions per month (see Section 3.1.1).

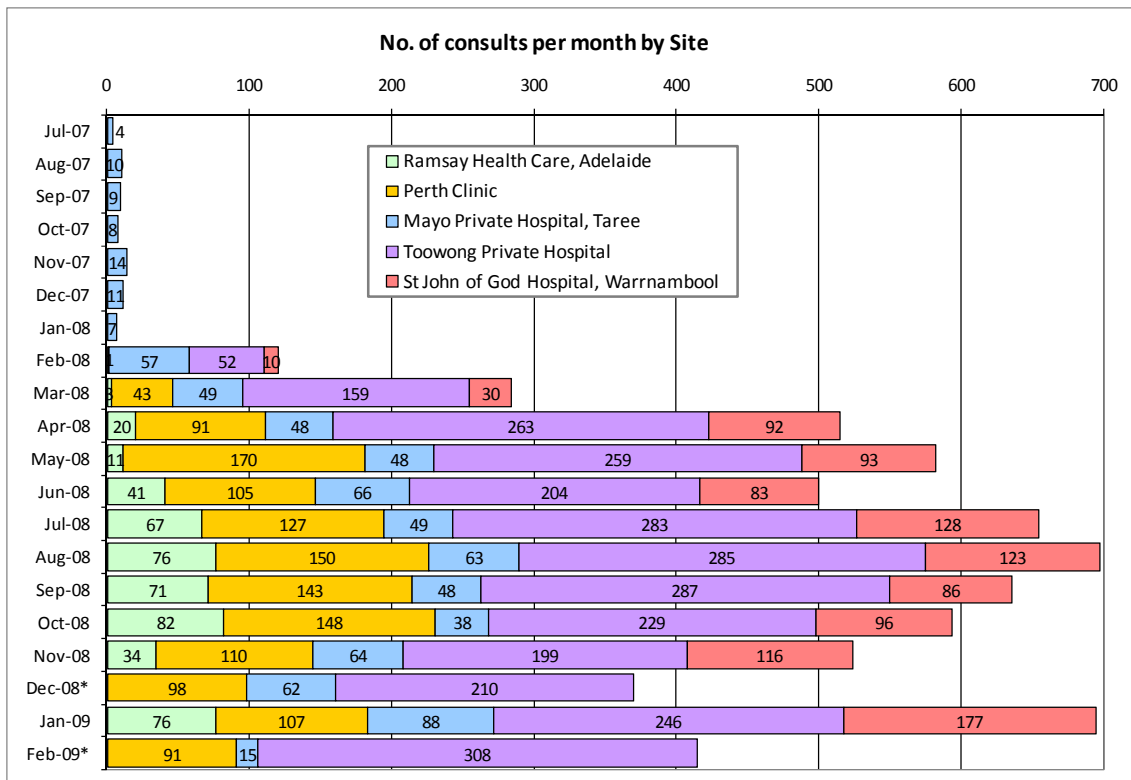
Figure 6: Number of consults per months since Program inception



* The total number of consults for December 2008 and for February 2009 has been excluded because no information was available for Ramsay Health Care and St John of God Hospital for those months.

Each site's contribution to the number of consults per month is shown in Figure 7.

Figure 7: No of consults per month by site

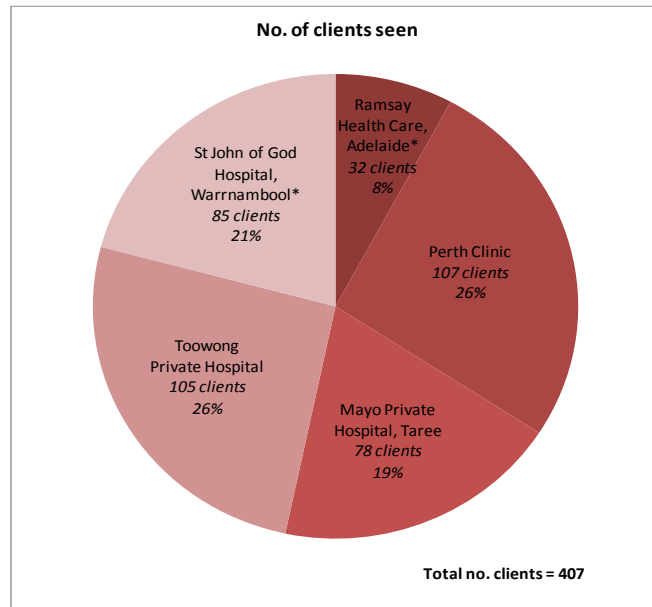


* Information not available for Ramsay Health Care and St John of God Hospital for Dec-08 and Feb-09.

3.2.2 Clients seen

A total of **407** clients had received a service under the MHNIP since its inception. Perth Clinic and Toowong Private Hospital each provided a service to over 100 clients, closely followed by Warrnambool (85 clients) and Mayo Private Hospital (78 clients). Ramsay Health Care (Adelaide), being the smallest MHNIP operation with only one Mental Health Nurse employed, had seen 32 clients. *Figure 8* provides details.

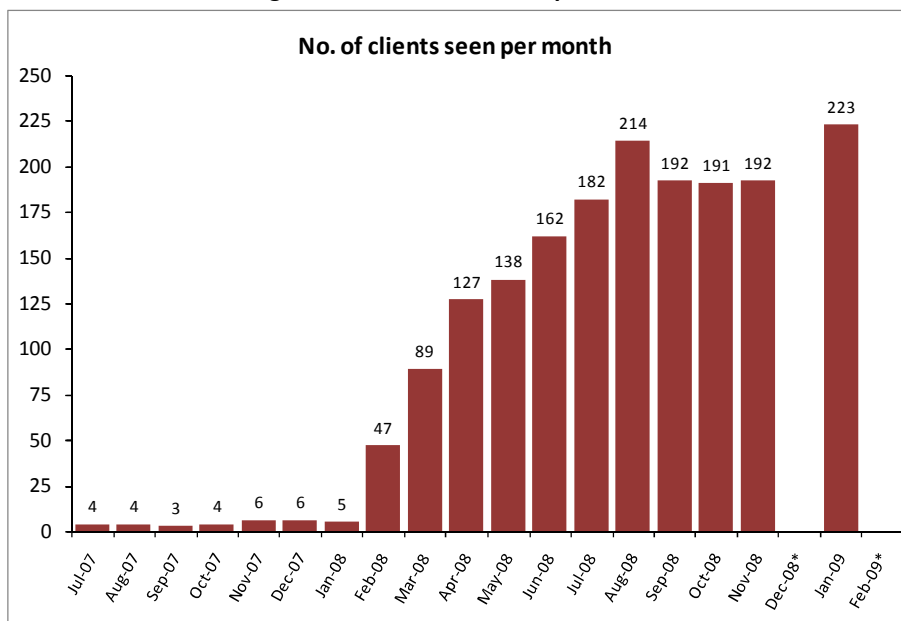
Figure 8: Total number of clients seen since Program inception, by site



* Information not available for Ramsay Health Care and St John of God Hospital for Dec-08 and Feb-09, therefore numbers for those sites are underestimates.

As would be expected, the number of clients seen *per month* (see *Figure 9* below) **increased** over time in line with the increasing number of Mental Health Nurse sessions per month.

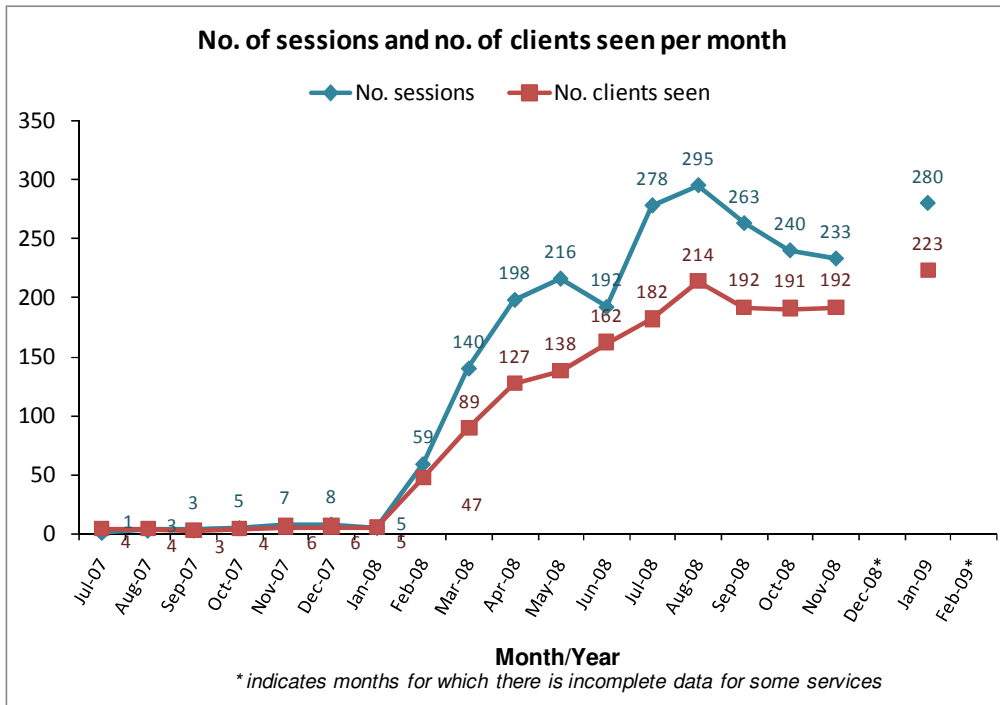
Figure 9: No of clients seen per month



* The total number of clients seen in December 2008 and February 2009 has been excluded because no information was available for Ramsay Health Care and St John of God Hospital for those months.

The number of clients who can be seen each month is linked to the number of Mental Health Nurse sessions per month, as illustrated in *Figure 10*.

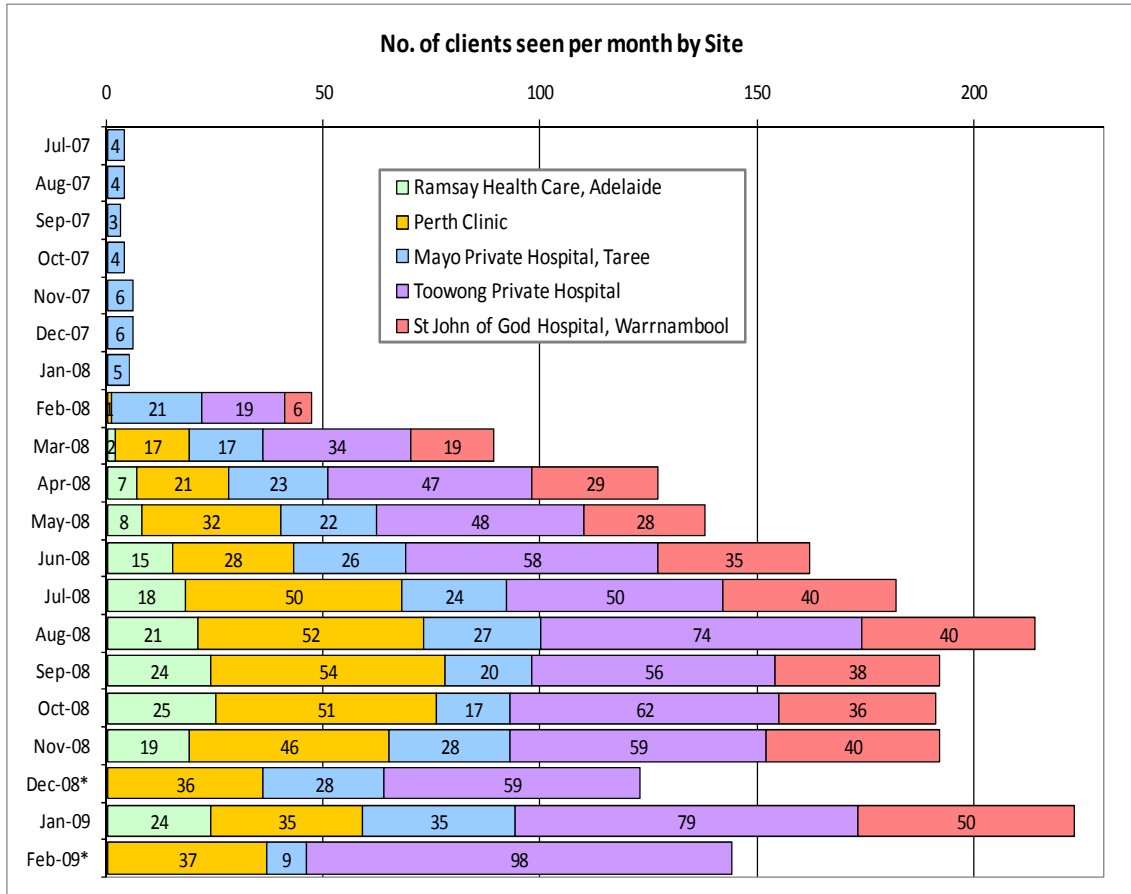
Figure 10: No of sessions and no of clients seen per month



* The total number of sessions and clients seen in December 2008 and February 2009 have been excluded because no information was available for Ramsay Health Care and St John of God Hospital for those months.

The number of clients seen per month at each site is shown in *Figure 11* below. Month-by-month variations in client load may also reflect site-specific factors such as periods of peak referral due to local promotion of the service, and periods of leave or training undertaken by staff.

Figure 11: No of clients seen per month, by site



* Information not available for Ramsay Health Care and St John of God Hospital for Dec-08 and Feb-09.

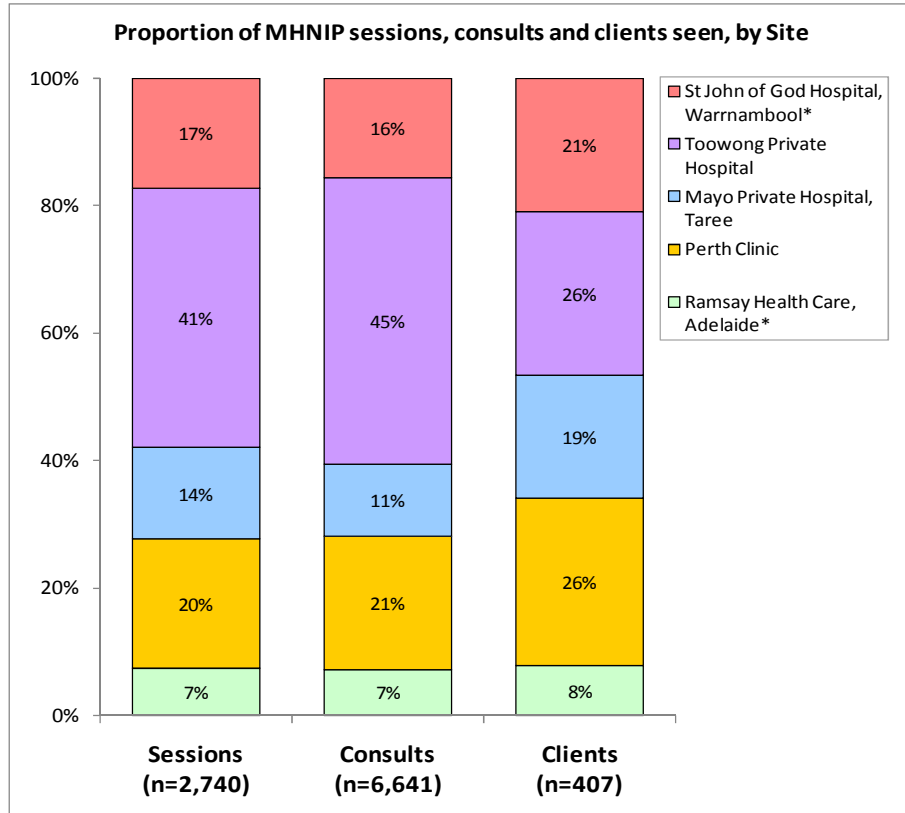
3.2.3 Summary of sessions, consults and clients seen by Site

Analysis of the number of sessions, consults and clients (see *Figure 12*) highlights operational differences between sites.

The site with the largest proportion of consults (45.0%) and sessions (41.0%) is Toowong Private Hospital, and shares with the Perth Clinic, the highest proportion of clients (26.0%) across the Program as a whole. The smallest proportion of consults, sessions and clients is held by the Adelaide site.

(Note that the nature of these differences (e.g. number of consults per client) is explored in *Section 3.3.4*, which shows, for example, that the Toowong site also has the highest number of consults per client.)

Figure 12: Proportion of MHNIP sessions, consults and clients seen, by site



* Information not available for Ramsay Health Care and St John of God Hospital for Dec-08 and Feb-09, therefore numbers for those sites are underestimates.

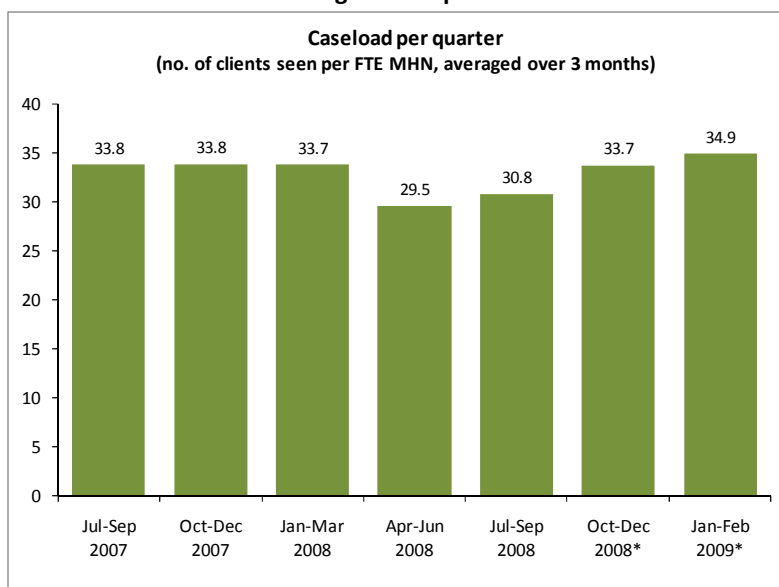
3.2.4 Caseload patterns

Calculating caseloads based on the number of unique clients seen per FTE Mental Health Nurse reduces the influence of month-by-month variations and provides a picture of service activity which is unrelated to the number of Mental Health Nurse sessions per month.

As *Figure 13* shows, the average caseload (number of clients seen per FTE Mental Health Nurse, averaged over 3 months) tends to remain within the range of **30 to 35 clients** per FTE Mental Health Nurse, when data from all sites are combined.

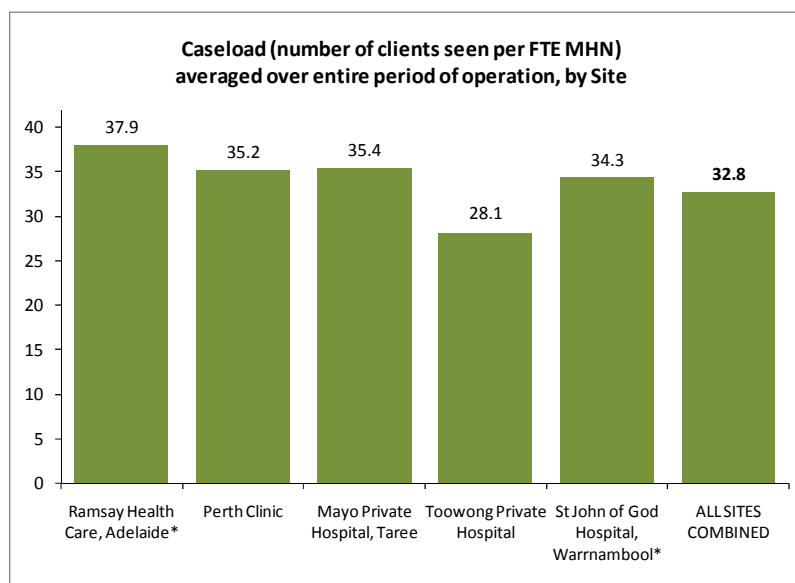
Average caseloads vary between sites, from **28.1 clients** per FTE Mental Health Nurse at Toowong Private Hospital (whose operation is characterized by home visits) to **37.9 clients** per FTE Mental Health Nurse at Ramsay Health Care Adelaide (see *Figure 14*). The Adelaide site has been the last in this group to commence operations and is the smallest operation so far (employing only one Mental Health Nurse), both of which may be factors in the high caseload compared to other sites.

Figure 13: Average caseload (no of clients seen per FTE MHN, averaged over 3 months), for each quarter since Program inception



* Caseloads are based on available data; note that information was not available for Ramsay Health Care and St John of God Hospital for Dec-08 and Feb-09.

Figure 14: Caseload (no of clients seen per FTE MHN) averaged over entire period of operation, by site



* Caseloads are based on available data; note that information was not available for Ramsay Health Care and St John of God Hospital for Dec-08 and Feb-09.

The caseload averaged across all sites and the entire period of MHNIP was **32.8 clients** per FTE Mental Health Nurse. Note that this average for all sites is strongly influenced and lowered by the data from Toowong Private Hospital, as Toowong’s operation comprises 41.0% of all MHNIP sessions.

MHNIP Guidelines require a **current** minimum case load of 20 individual patients with a severe mental disorder per week, averaged over three months, and an expected **annual** caseload per FTE Mental Health

Nurse of 35 clients with a severe mental disorder, most of whom being expected to require ongoing care over the course of the year.

On this basis, the Adelaide, Perth, and Taree sites have met or exceeded the Guideline, the Warrnambool site is just below at 34.3 (and is a relatively newly established site) while Toowong is well below at 28.1.

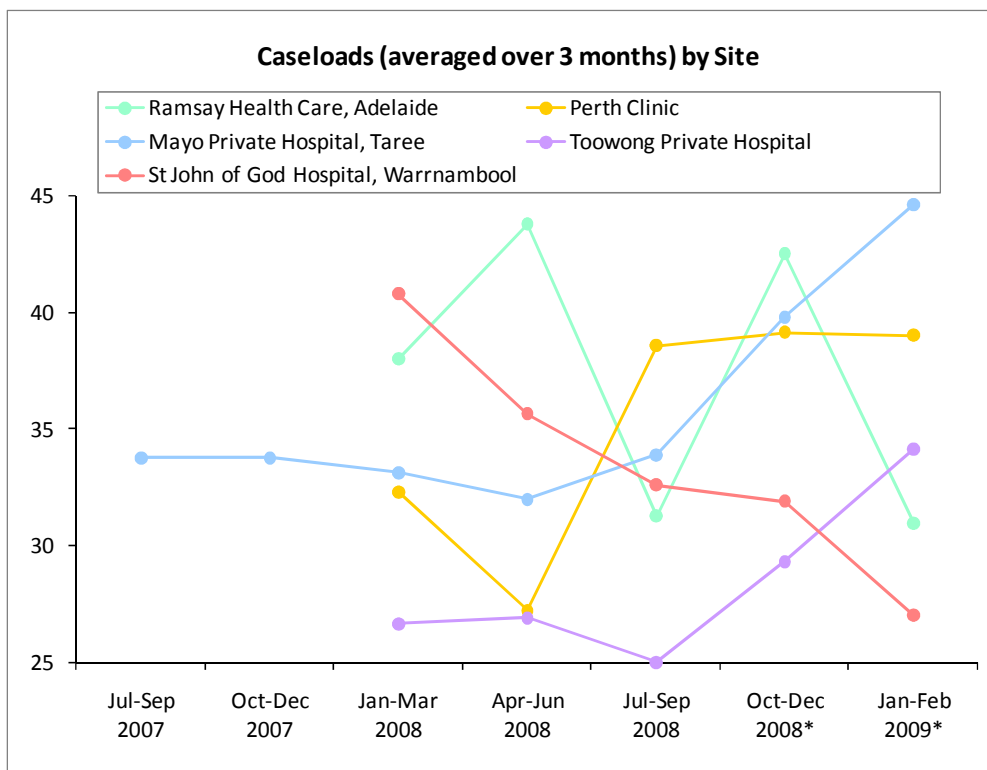
Caseloads tend to vary over time, across phases of operation and as different procedures and staffing profiles are introduced at each site.

As Figure 15 illustrates, some sites have shown an apparent trend of increasing caseloads over time (Mayo Private Hospital, Perth Clinic, Toowong Private Hospital), while St John of God Hospital seems to have shown a decreasing caseload over time (from approximately 41 clients per FTE Mental Health Nurse to a more manageable 27 clients). Ramsay Health Care Adelaide does not yet appear to be showing a stable average caseload per quarter.

Factors other than the number of Mental Health Nurse sessions which would influence the *maximum number of clients* able to be seen in any one month at each site may include:

- the operational characteristics of each site (eg. the relative proportion of home visits)
- the frequency and intensity of support required by their client group, and
- other demands on the MHN's time such as meetings and administrative tasks.

Figure 15: Average caseload per quarter, by site, averaged over 3 months



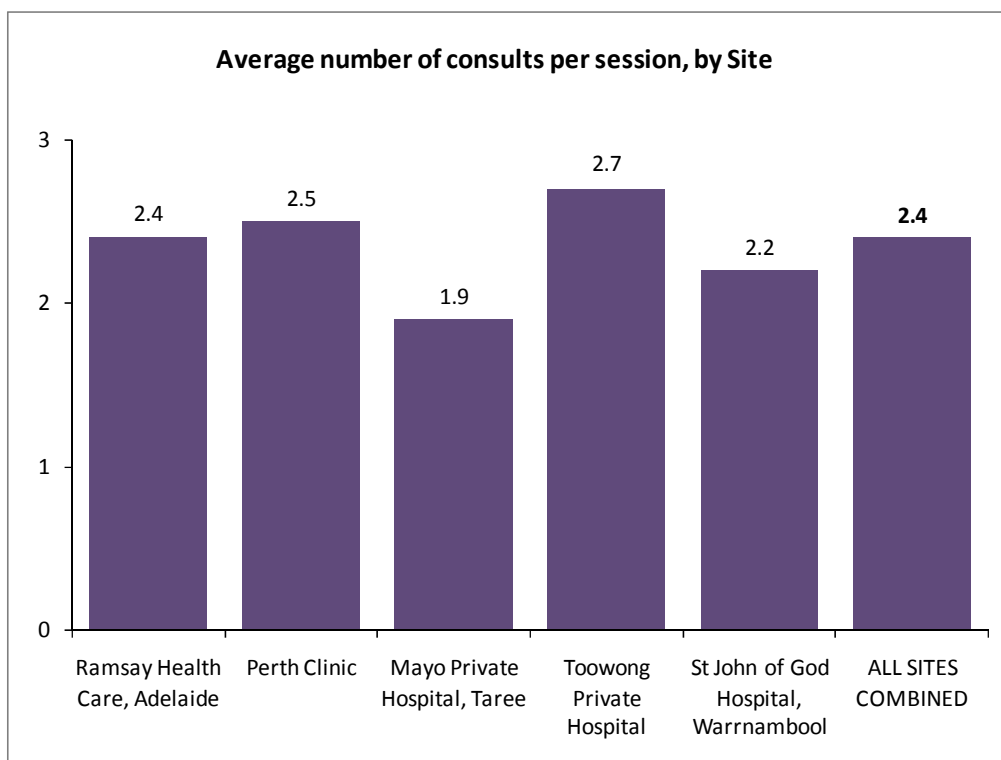
* Caseloads are based on available data; note that information was not available for Ramsay Health Care and St John of God Hospital for Dec-08 and Feb-09.

3.3 Service utilisation

3.3.1 Consults within sessions

As *Figure 16* indicates, the **average** number of consults per session across all sites was **2.4**, ranging from 1.9 at Mayo Private Hospital to 2.7 at Toowong. **This appears to be in line with the MHNIP Guideline of at least two individual patients (with a severe mental health disorder) per session.**

Figure 16: Average number of consults per session, per site

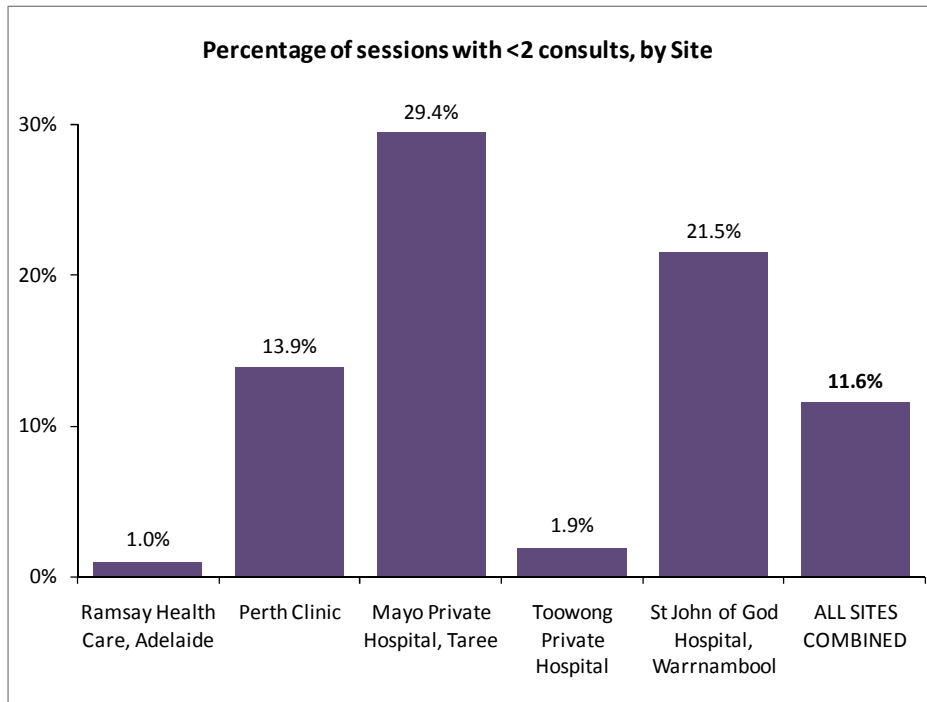


The **median** number of consults across every site was **2.0** – again conforming with MHNIP Guidelines, with a minimum of 1 consult per session and a maximum of 7 consults per session (2 cases only).

It is interesting to see, however, that at some sites (Mayo Private Hospital, St John of God Hospital) it was quite common for Mental Health Nurses to undertake less than two consults (ie. 1 consult) per session – as indicated in

Figure 17.

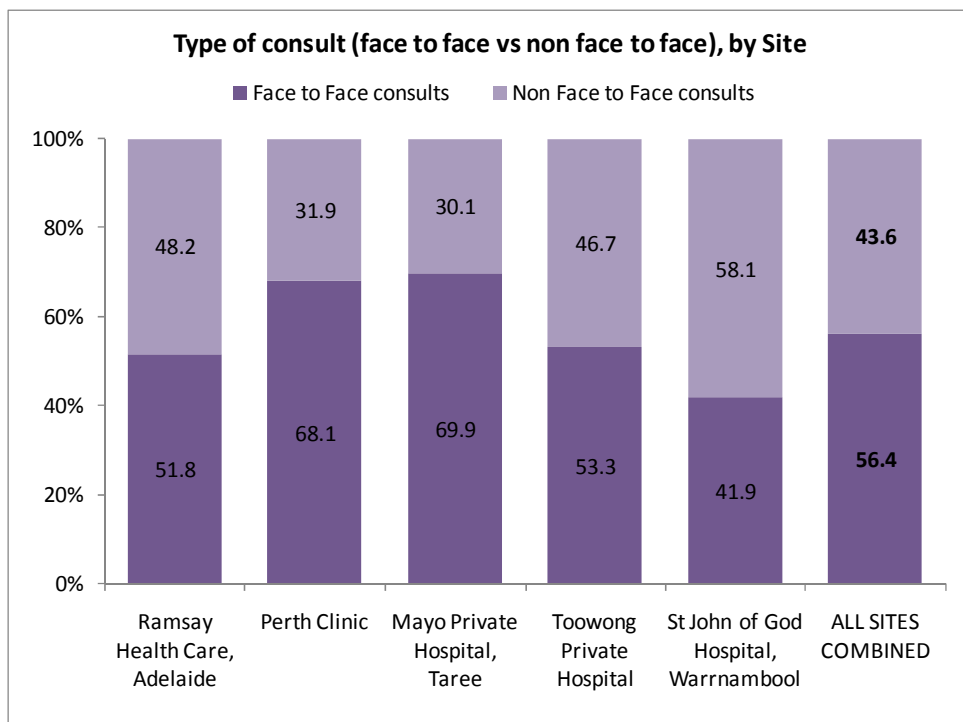
Figure 17: % of sessions where less than 2 consults occurred, by site



3.3.2 Types of consult

The Medicare claim information records whether each consult was face to face or not. Sites differed in the proportion of consults which were face to face (see Figure 18) from 42.0% at St John of God Hospital to 70.0% at Mayo Private Hospital. This may be related to operational differences such as the extent of telephone contact routinely undertaken at some sites.

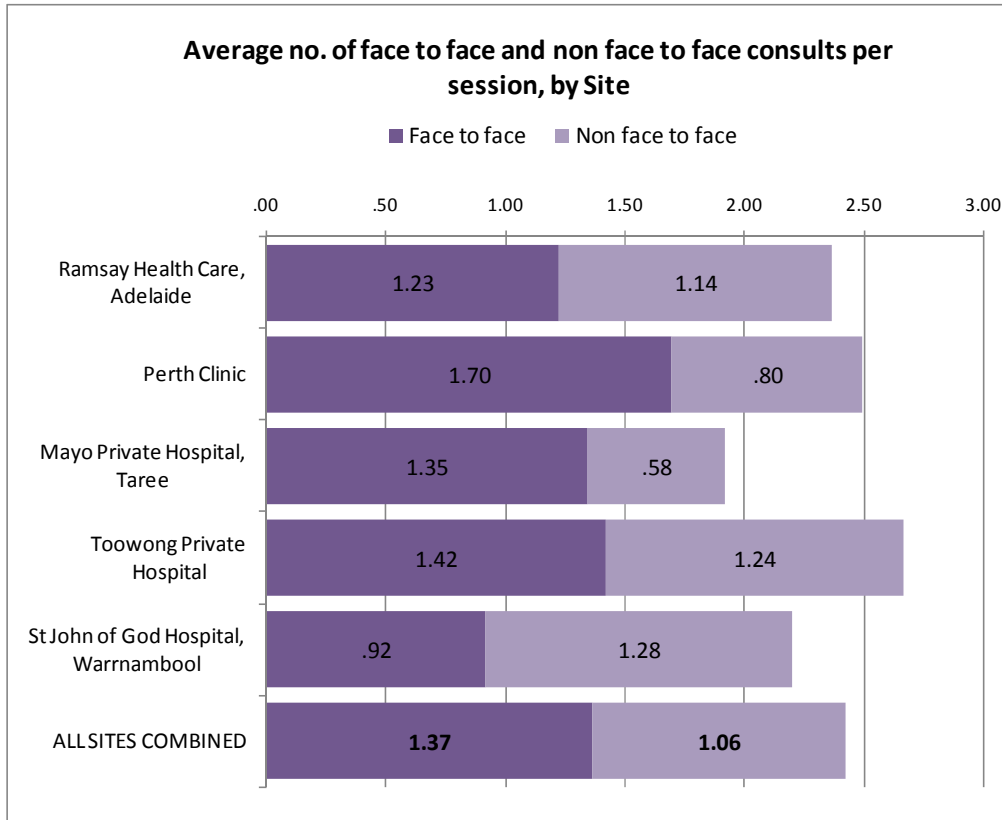
Figure 18: Type of consult (face to face vs non face to face) by site



3.3.3 Face to face and non face to face consults within sessions

The **average** number of face to face consults and non face to face consults per session further reveals differences in the conduct of the Program across sites – see *Figure 19*.

Figure 19: Average no of face to face and non face to face consults, per session, per site



The **median** number of face to face consults per session was **1.0**, as was the median number of non face to face consults per session. The number of face to face consults in any one session ranged from 0 to 5, and the number of non face to face consults in any one session ranged from 0 to 7.

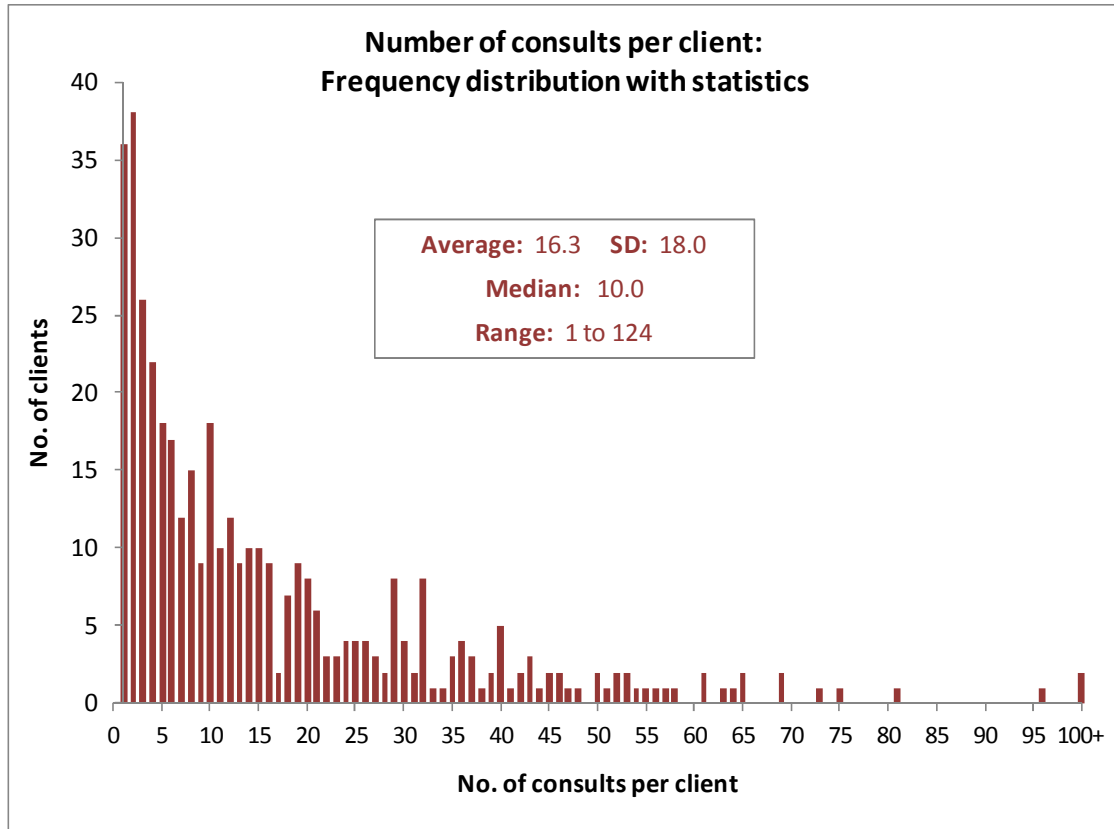
3.3.4 Number of consults per client

The number of consults per client ranged from 1 consult to 124 consults, with an **average of 16.3 consults per client**, as shown in

Figure 20.

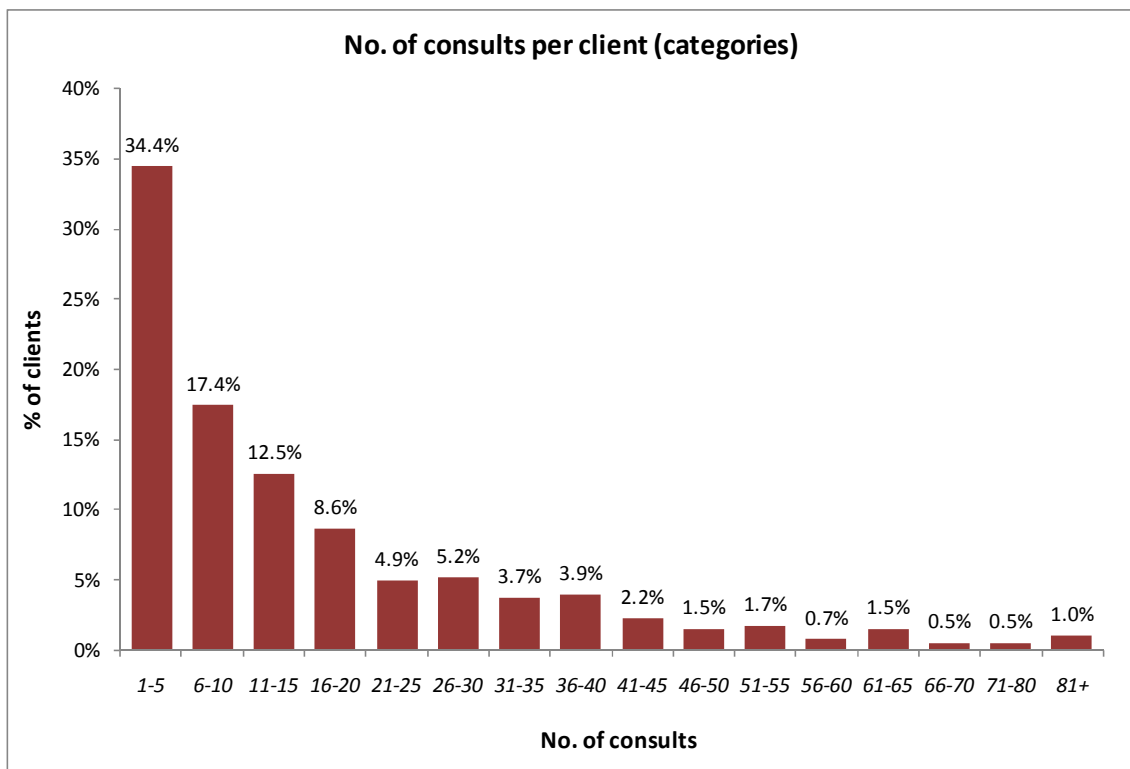
As would be expected the distribution is strongly skewed; the number of consults most frequently provided per client was **2 consults** (38 clients, 9.3% of all clients), followed closely by 1 consult (36 clients, 8.8%).

Figure 20: Number of consults per client: Frequency distribution with statistics



More than one third (34.4%) of clients had 5 consults or less (see *Figure 21*).

Figure 21: Number of consults per client: categories



The average number of consults per client was in the range of 10 to 15 for all sites except for Toowong Private Hospital, where the average number of consults per client was 28.4 (median 25). As *Figure 22* and

Figure 23 illustrate, a much larger proportion of clients at Toowong received 21 or more consults compared with the other sites. This is consistent with clients at that site tending to remain in the program longer (see Section 3.4.2).

Figure 22: Average and median number of consults per client, by Site

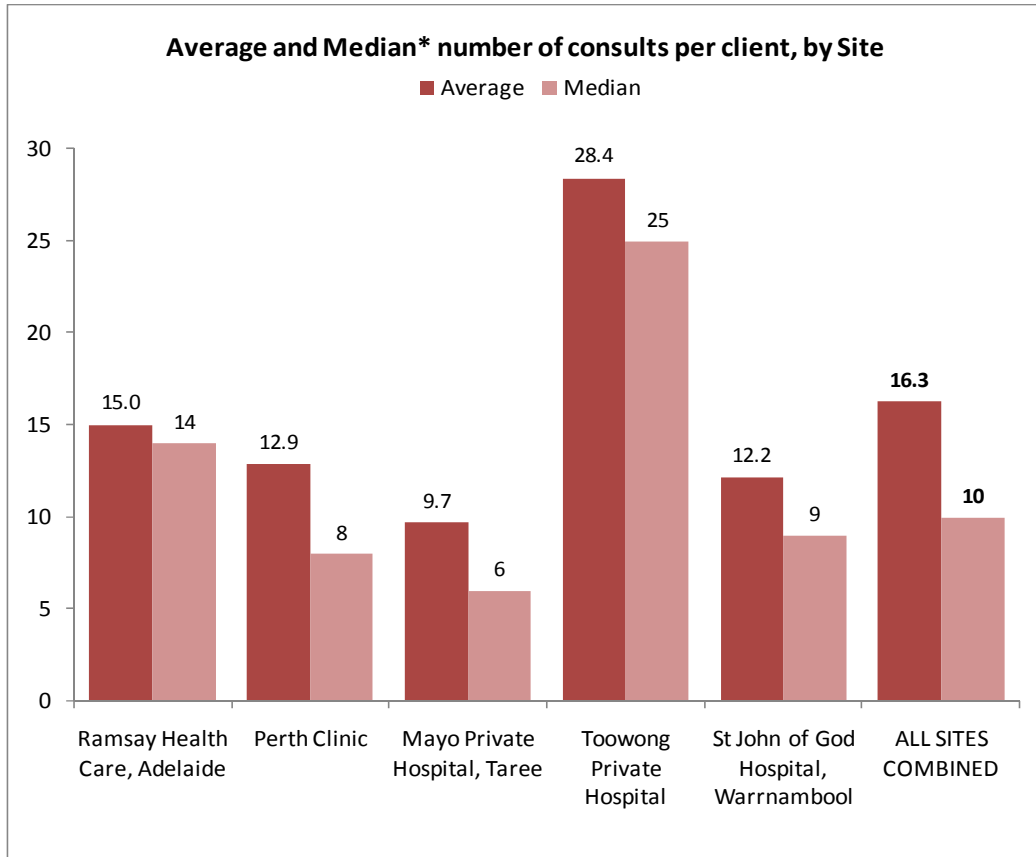
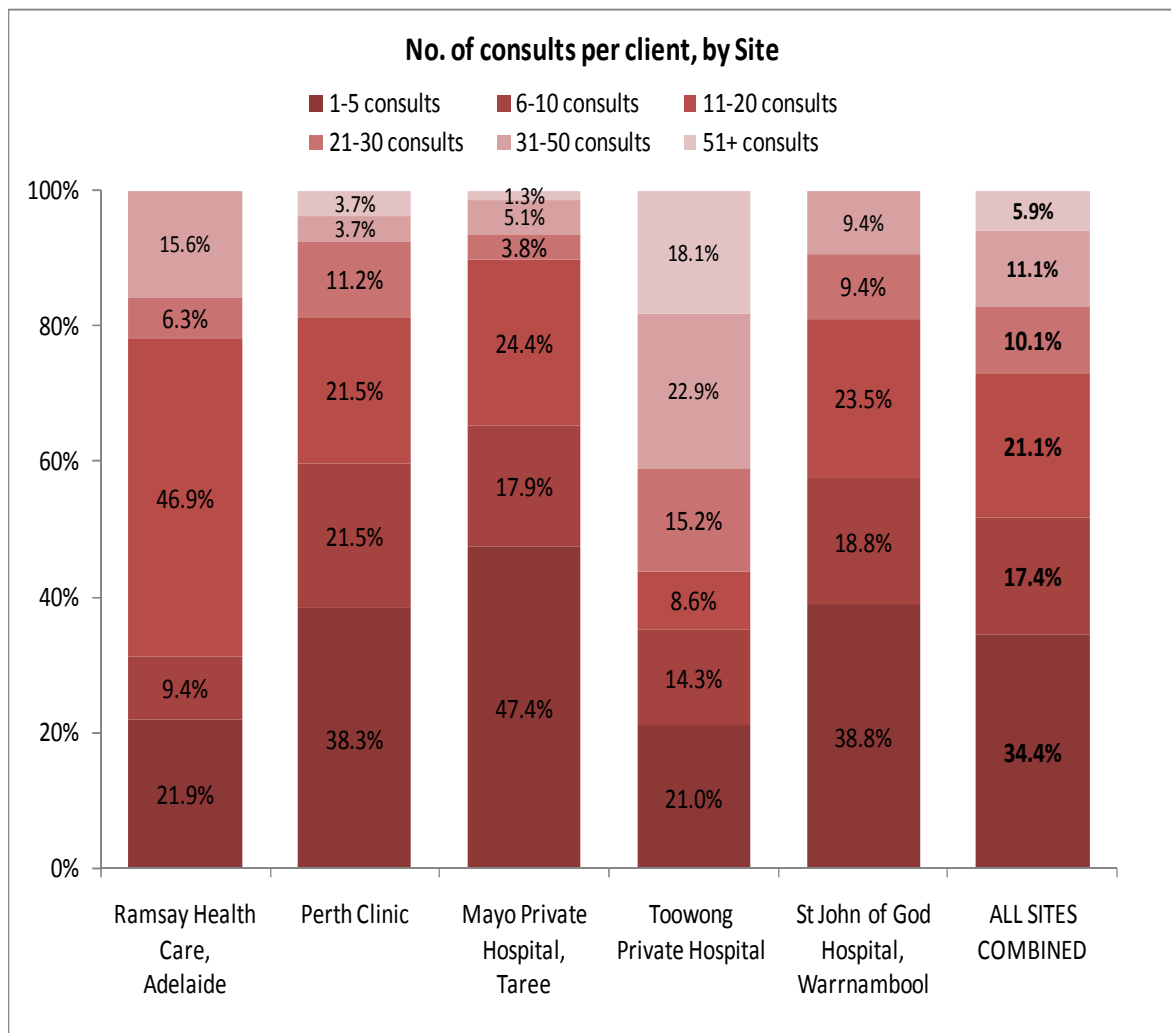


Figure 23: Number of consults per client (categories) by Site



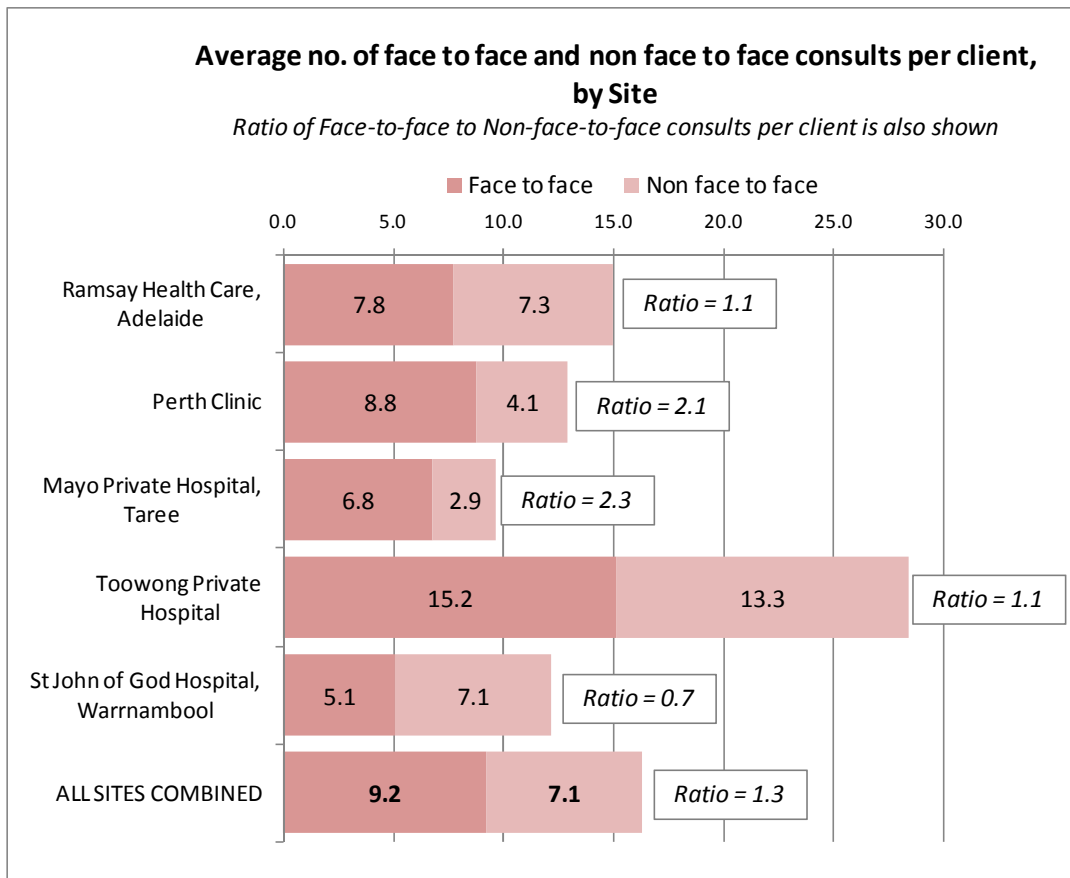
3.3.5 Number of face to face and non face to face consults per client

The **average** number of *face to face* consults per client varies from **5.1** at St John of God Hospital to **15.2** at Toowong Private Hospital.

The **ratio** of face to face consults to non face to face consults per client ranges from **0.7** at St John of God Hospital (ie. clients receive more non face to face consults on average than face to face consults), through to an almost equal number of face to face vs non face to face consults at the Adelaide and Toowong sites, to **more than 2** face to face consults for every non face to face consult at the Perth Clinic and Mayo Private Hospital. Details appear in

Figure 24.

Figure 24: Average number of face to face and non face to face consults per client, by Site



Across all sites, **43%** of clients had received between **1 and 5 face to face** consults during their time in the Program, and at the other extreme **12%** of clients had received **21 or more** face to face consults.

The site most likely to have more than 21 consults per client was Toowong with 22.9%. Details appear in and *Figure 26*.

Figure 25: Number of face to face consults per client (categories) by Site

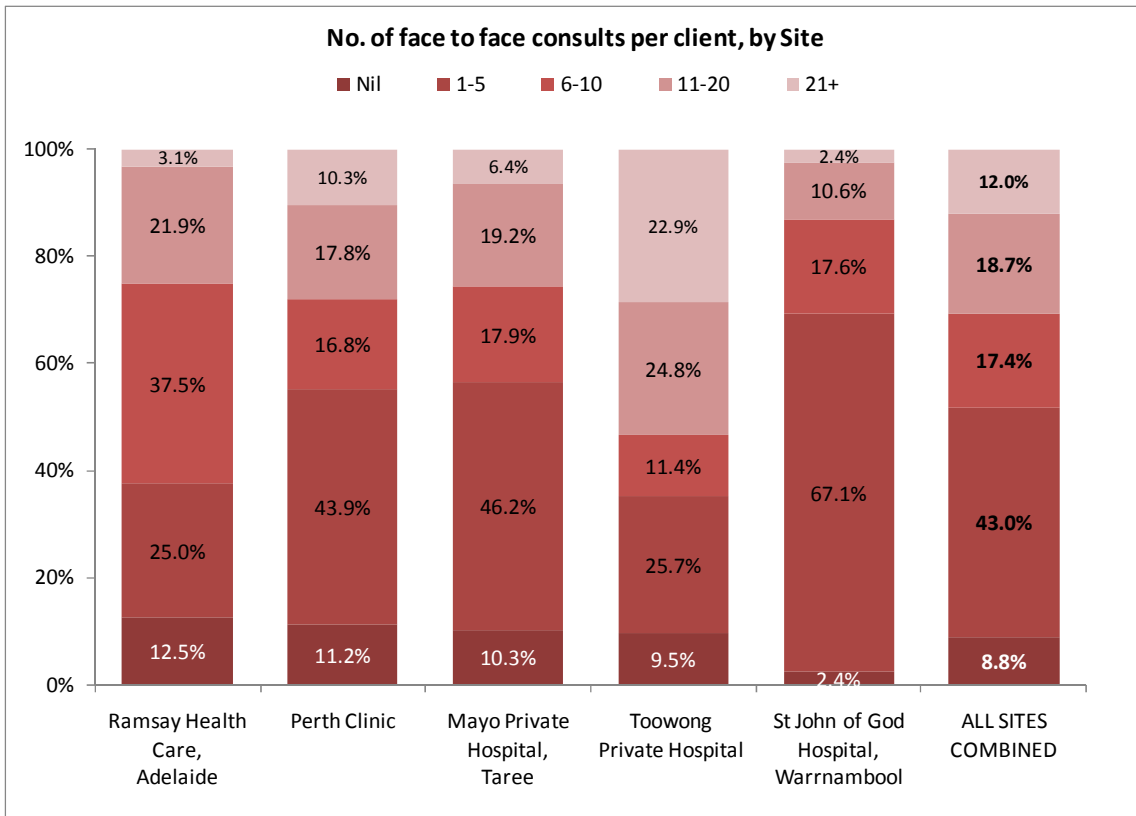
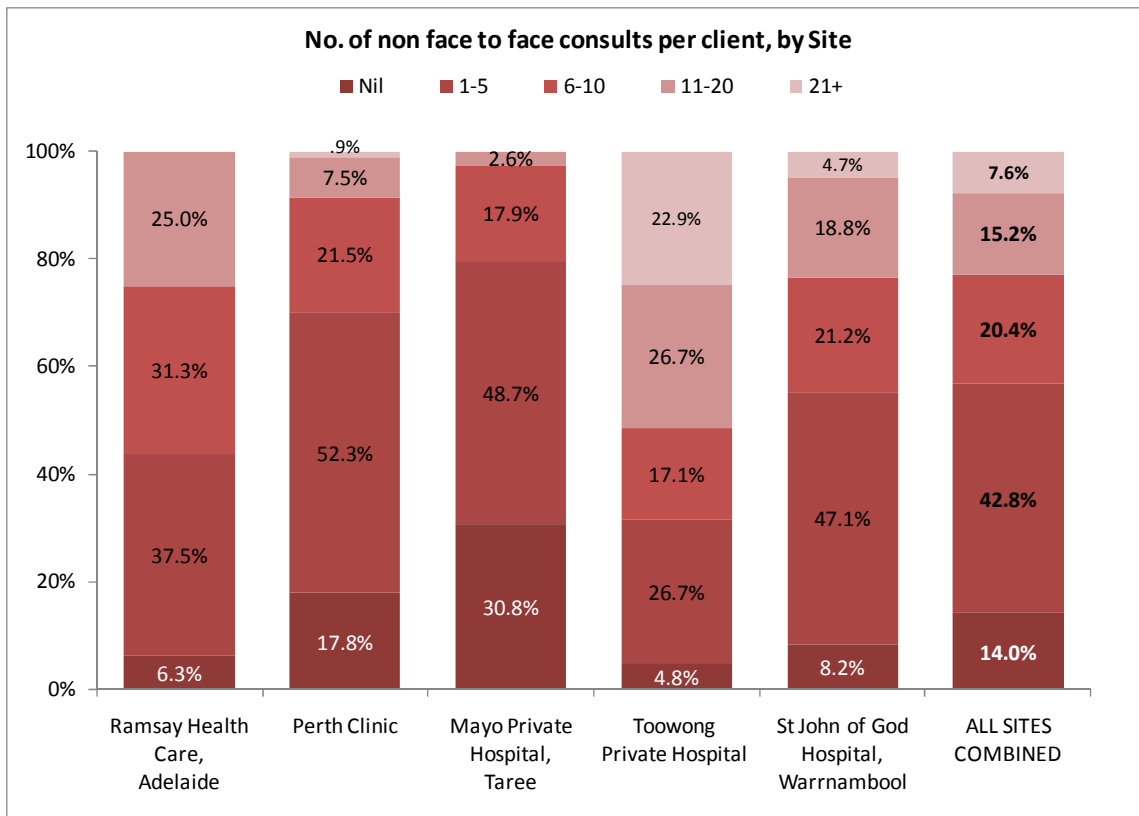


Figure 26: Number of non face to face consults per client (categories) by Site



3.3.6 Frequency of service (number of consults per client per month)

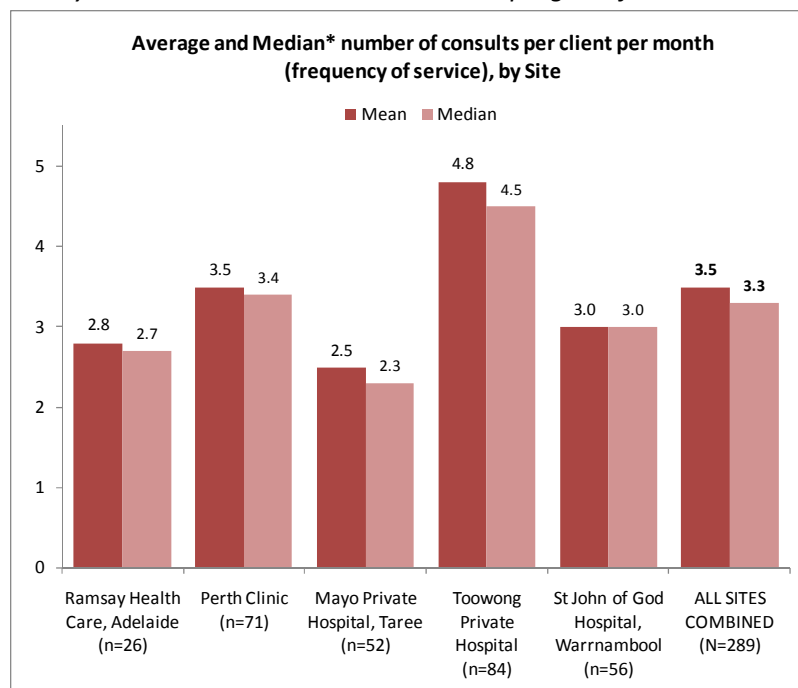
To derive an indication of frequency of service, the number of consults per month was calculated for clients who had been in the program for at least one month.

On average, clients received approximately **3.5 consults per month** during their time in the Program.

The **highest** frequency of service was at Toowong Private Hospital with an average of **4.8 consults** per client per month, and the lowest was at Mayo Private Hospital with 2.5 consults per client per month on average.

The **lowest** frequency of service provided to a client was **0.5** (half of a consult per month, ie a consult every 2 months on average), and the highest frequency of service provided to a client was 13 consults per month, (ie around 3 times per week). Details appear in *Figure 27*.

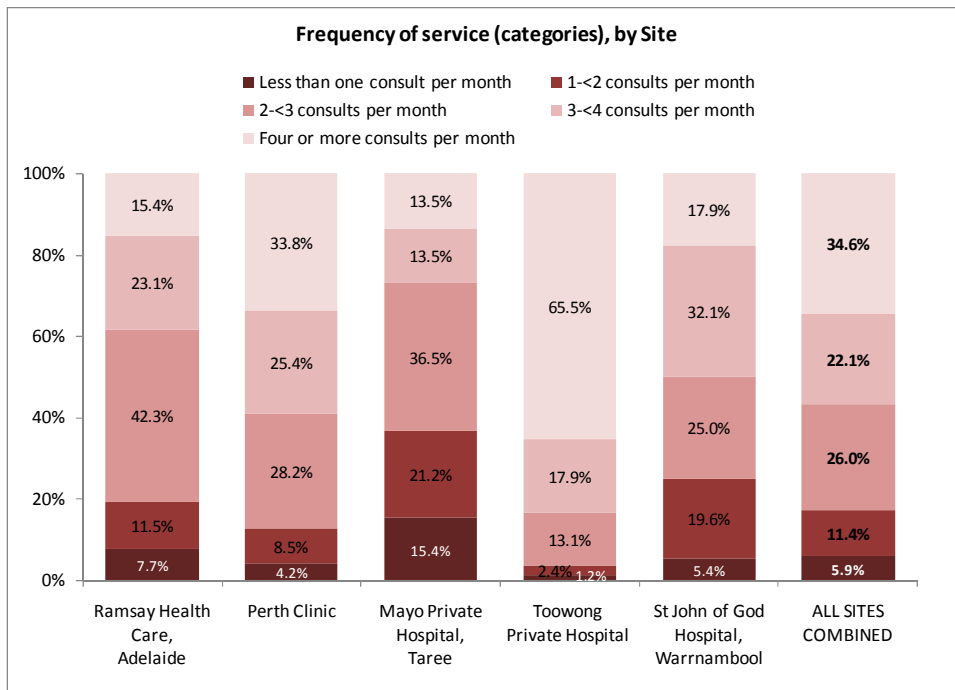
Figure 27: Frequency of service - average and median number of consults per client per month, by Site
(includes only those clients who have been in the program for at least one month)



Across all sites, **36.4%** of clients received **four or more consults per month** (see

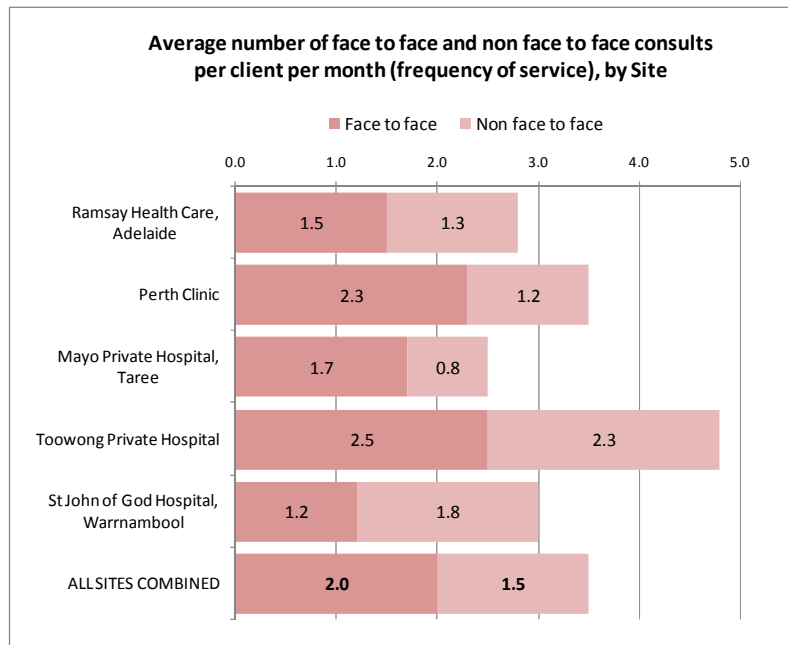
Figure 28). Variations in the frequency of services are most marked between Mayo Private Hospital and Toowong Private Hospital, where 13.5% and 65.5% of clients respectively had four or more consults per month.

Figure 28: Frequency of service – number of consults per client per month (categories), by Site
(includes only those clients who have been in the program for at least one month)



In terms of *types of consult*, the number of **face to face** consults per client per month averaged **2.0 for all sites** combined, and non face to face consults per client per month **averaged 1.5** – see *Figure 29*.

Figure 29: Frequency of service - average number of face to face and non face to face consults
(includes only those clients who have been in the program for at least one month)



Over 40% of clients had **at least two face to face** consults per month, and around 30% of clients had **at least two non face to face** consults per month – as *Figure 30 and Figure 31* demonstrate.

Figure 30: Frequency of service – number of face to face consults per client per month, by Site
(includes only those clients who have been in the program for at least one month)

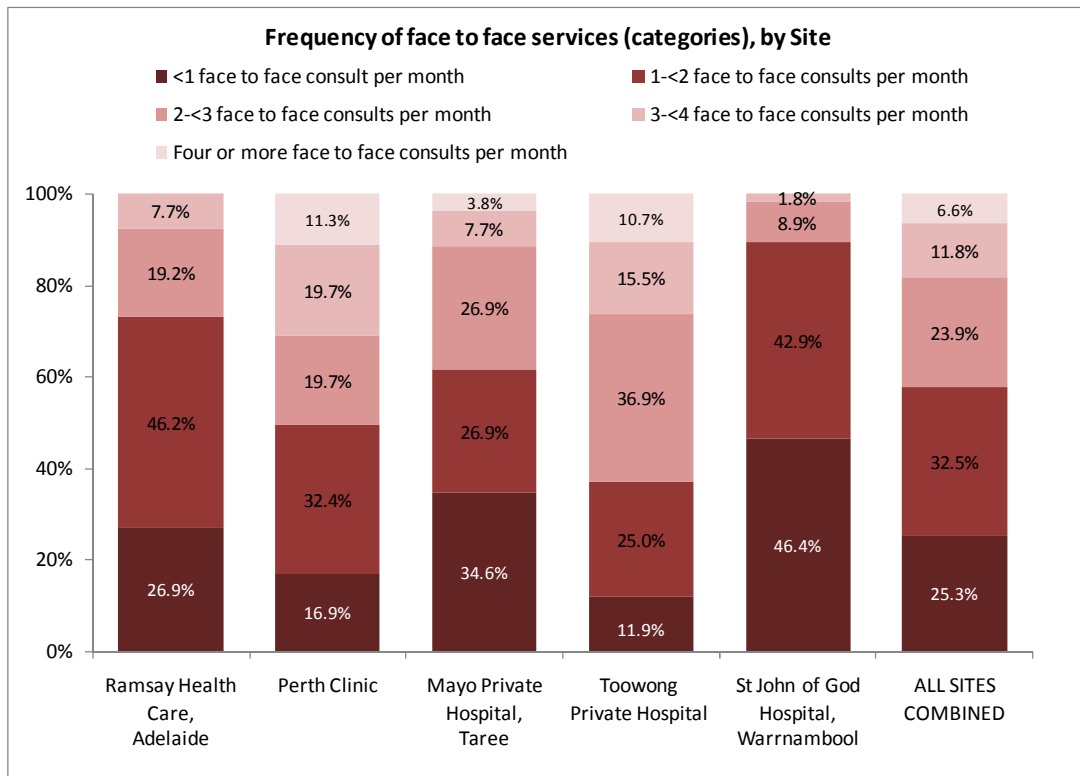
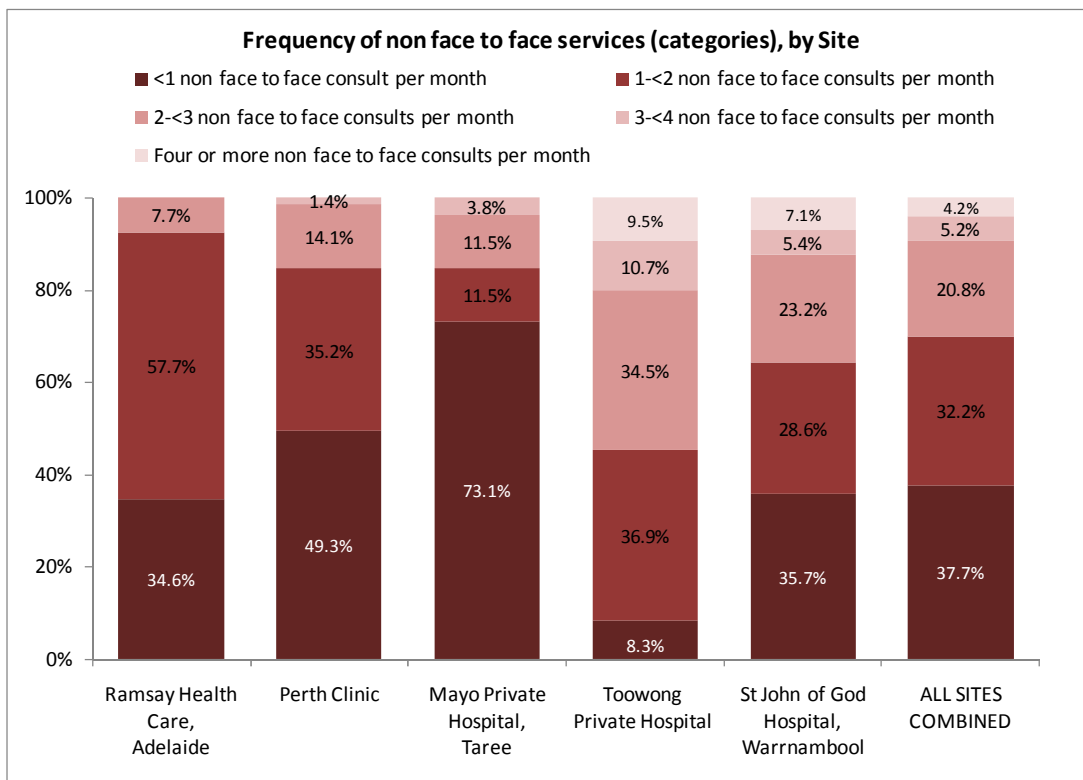


Figure 31: Frequency of service – number of non face to face consults per client per month, by Site
(includes only those clients who have been in the program for at least one month)



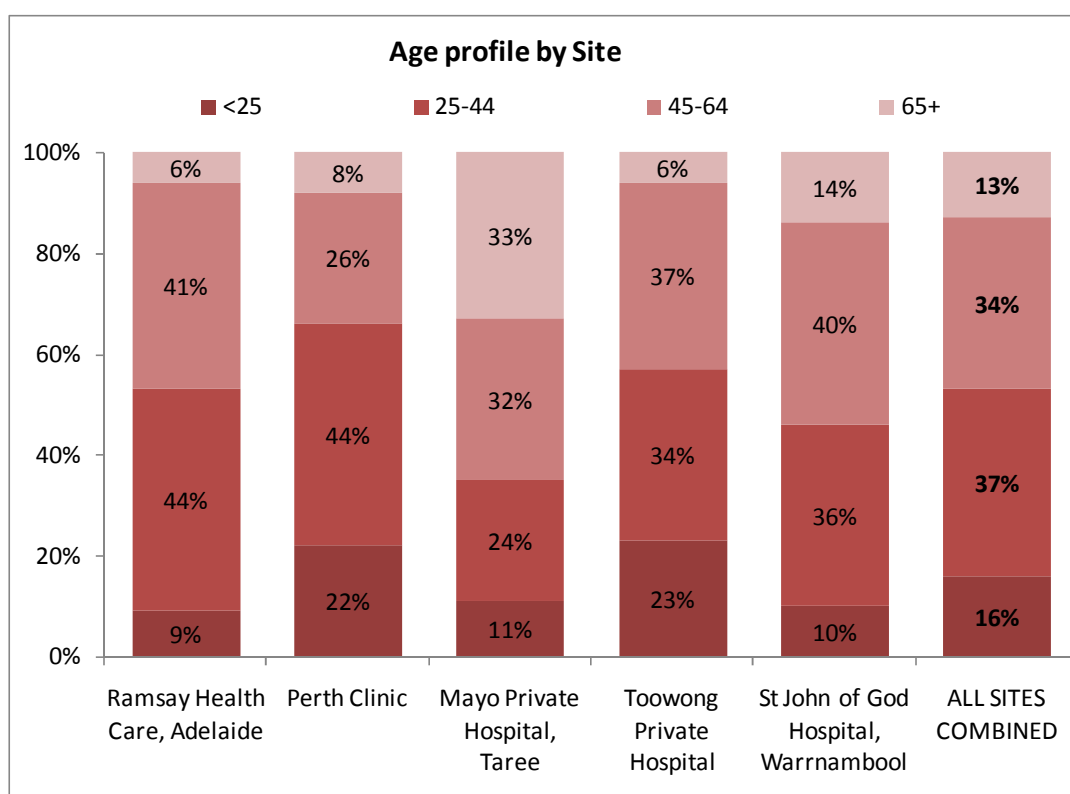
3.4 Client characteristics and activity

3.4.1 Demographic information

Of the 407 clients who received a service under the MHNIP, **63.0%** were **female**. The **gender** profile was similar across sites, ranging from 59.0% females at Ramsay Health Care Adelaide to 68.0% females at Perth Clinic.

The **average age** of clients at each site ranged from 40 years at Perth Clinic and Toowong to 53 years at Mayo Private Hospital. The average age for the entire client group was **44 years**. The age distribution at each site is illustrated in *Figure 32*, and clearly shows the older age profile for clients at Mayo Private Hospital, with 33.0% being aged 65 or over. By contrast, the two sites with the greatest proportion of clients aged under 25 years were Toowong Private Hospital (23.0%) and the Perth Clinic (22.0%).

Figure 32: Client age profile, by site



Inner Regional areas are well-represented in the client group (**36.0%** of clients). A further **5.0%** of clients were living in postcodes classified as Outer Regional, and the remaining 58.0% of clients were living in a major city.

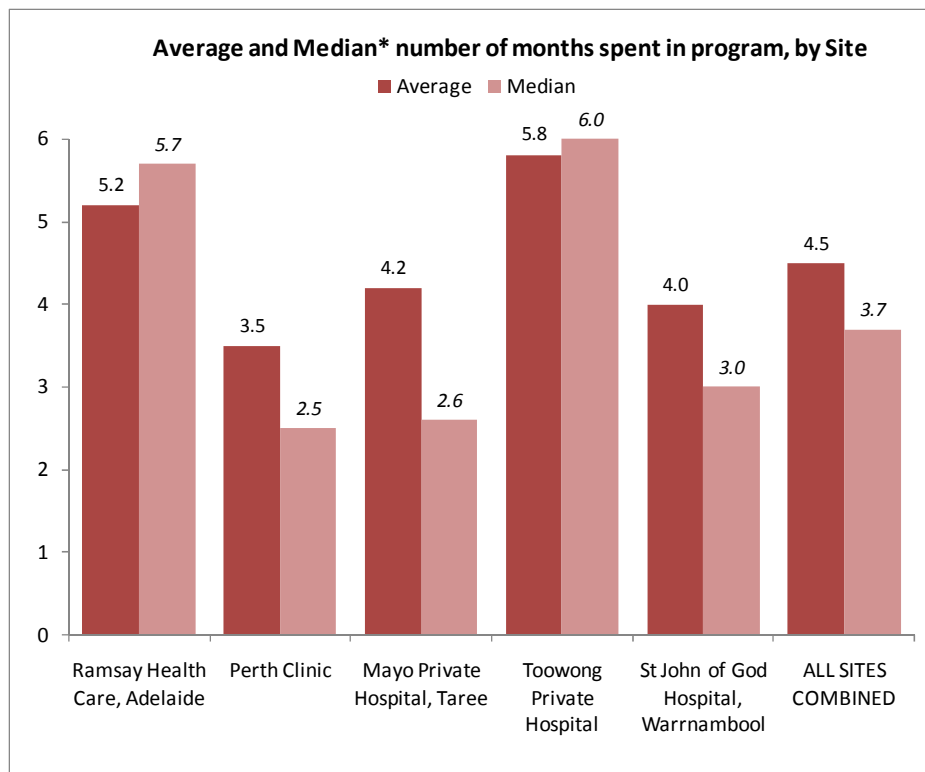
3.4.2 Time spent in program – All Clients

The **average** number of months that all clients had spent in the program to date was **4.5 months** (SD 3.9 months, **Median** 3.7 months). *Note that this includes clients who are still receiving a service as well as clients who have exited the Program.*

Figure 33 shows that sites varied from an average of 3.5 months at the Perth Clinic to 5.8 months at the Toowong site, and from a median of 2.5 months at the Perth site to a median of 6 months at Toowong.

While the maximum length of time that a client could have spent in the MHNIP will depend on the commencement date of the Program at each site, differences between the sites in terms of the average length of time spent in the Program do **not** appear to be related to program commencement dates.

Figure 33: Average and median length of time, in months, that all clients spent in the Program, by site

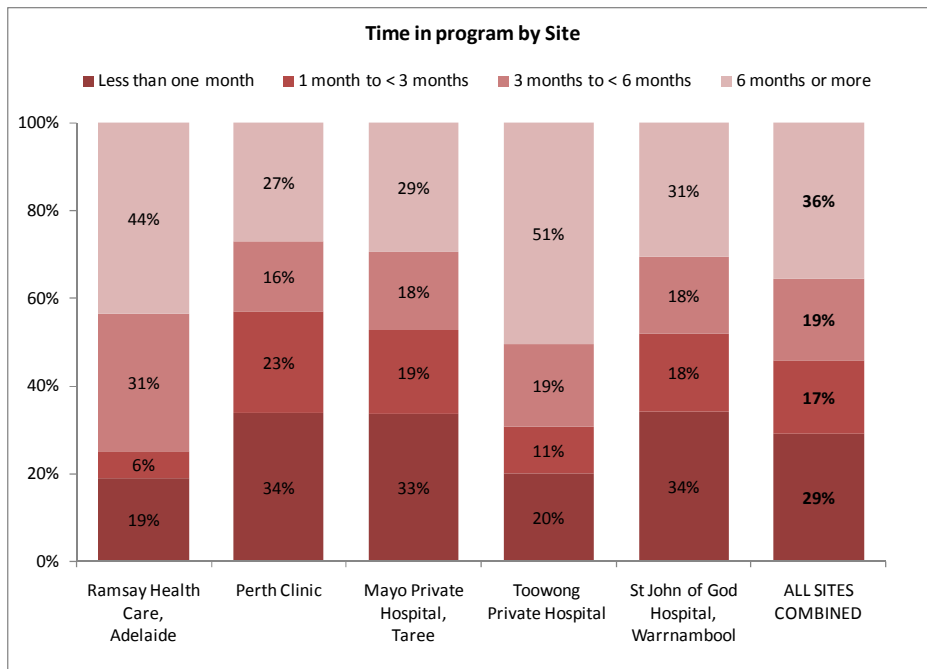


* Medians are shown alongside the Averages due to high variability and skew in the data for some sites.

Nearly **one-third** of all clients appeared to spend **less than a month** in the Program (see

Figure 34), perhaps indicating difficulties in engaging some clients. The percentage of clients who had spent less than one month in the MHNIP varies quite substantially between some sites, and this will influence the statistics (average and median).

Figure 34: Length of time clients spent in the Program, by site



3.4.3 Time spent in program – Clients who spent at least one month in the Program

Excluding clients who may not have engaged with the service (ie clients who spent less than a month in the Program) from the analysis produces more reliable results for average number of months spent in the program, as shown in

Figure 35.

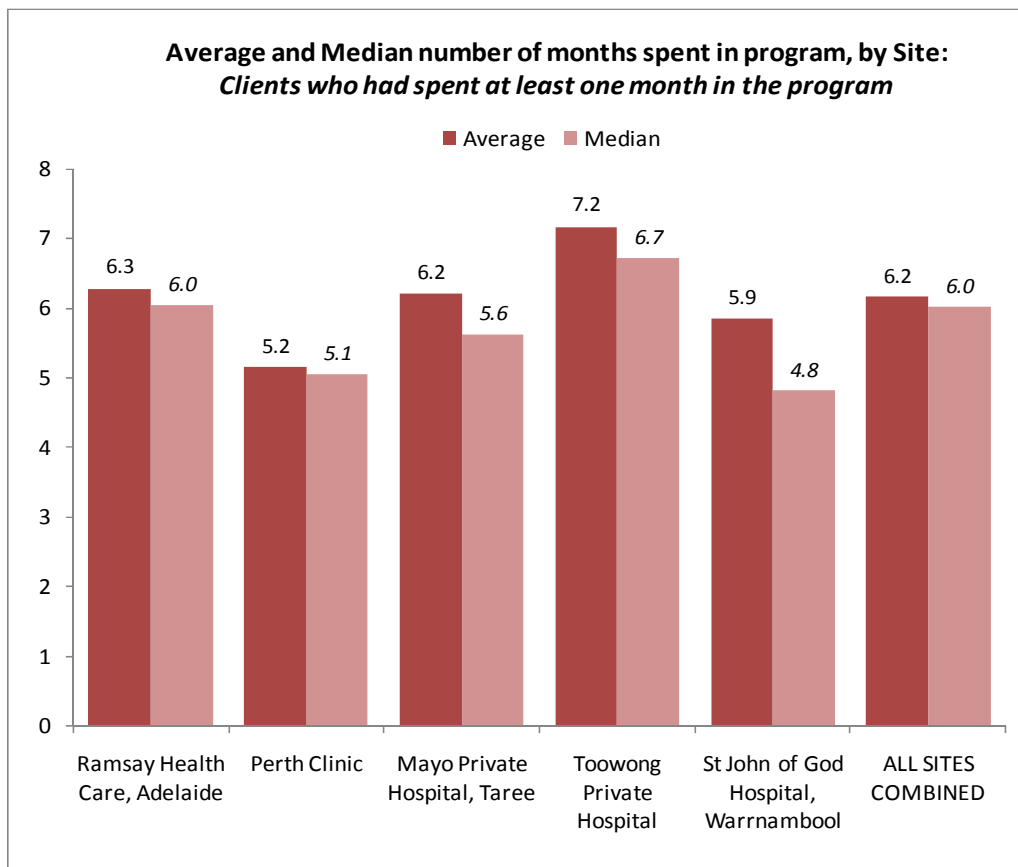
These results show more consistency across sites and would be more indicative of the usual amount of time that clients who successfully engage with the Program remain in the MHNIP.

Across all sites, this group of clients had been receiving MHNIP services for an **average of 6.2 months** and a **median of 6 months**.

This ranged from a low of 5.2 average (and 5.1 median) months at the Perth site, to a high of 7.2 average (and 6.6 median) months at the Toowong site.

Note however that many of these clients would be continuing in the Program beyond the scope of the Medicare data provided, and therefore the statistics on time spent in the Program are likely to be **underestimates** at this stage. At the time of analysis, a total of **289** clients had been in the Program for more than one month.

**Figure 35: Average and Median length of time (months) clients spent in the Program, by site
Clients who had spent at least one month in the Program (N=289)**



3.4.4 Time spent in program – Clients who appear to have Exited the program

The Medicare data do not capture whether or not clients have exited the program. As a proxy measure the evaluators identified those clients who *appeared to have exited* the program by examining their last date of service.

Using information from the analysis of Site Data (Accompanying Report 3 to the Final Report of the evaluation) regarding the proportion of clients who exited the service (30%), a cutoff for the last date of service was set as 31st October 2008, which classified **31%** of the client group (127 clients) as having exited the program.

Figure 36 shows that the **average length of time spent in the Program** between first service and last service for the clients who appear to have exited the service is **2.2 months (median 1.5 months)**. If the MHNIP continues and longer-term clients exit the service, the average length of time spent in program is expected to increase.

At present the statistics are dominated by those who spent a very short time in the program, possibly due to failure to engage with the service. (Note that “failure to engage” isn’t necessarily as negative as it appears, as it may simply reflect early identification of a different level and/or scope of needs than can be provided in the MHNIP).

**Figure 36: Average and median length of time (months) that clients spent in the program, by Site:
Clients who appear to have exited the Program**

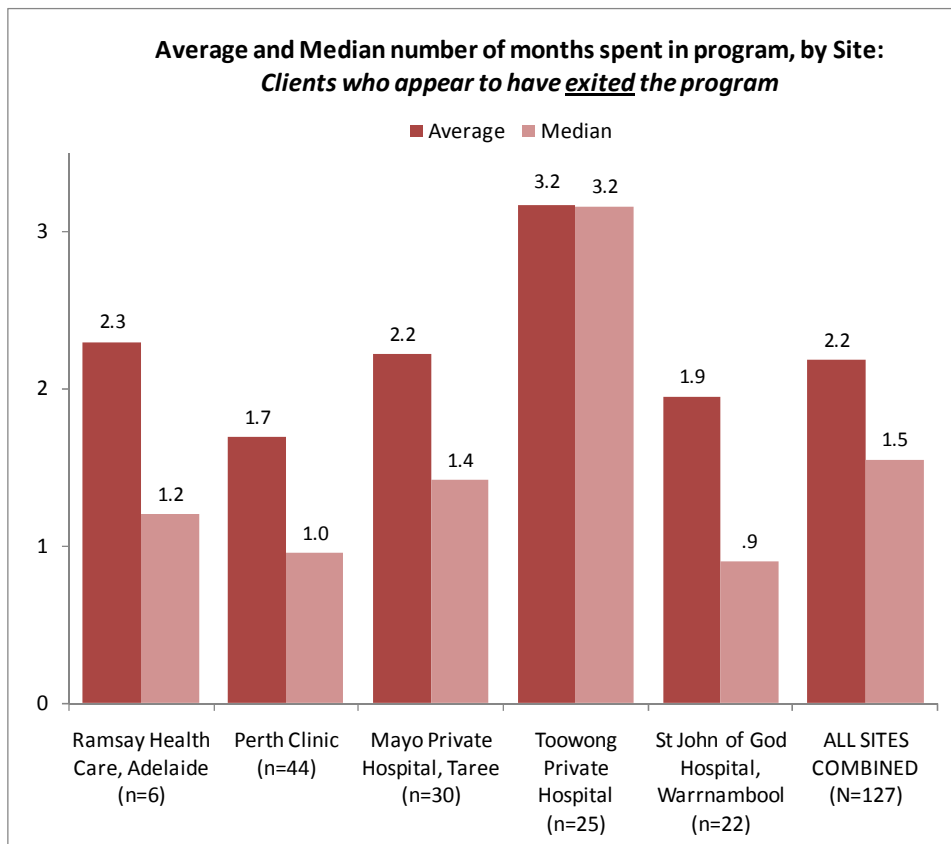


Figure 37 illustrates the high representation in the data of clients who spent a **very short time** in the program, and provides more detail about those at the lower end of the time scale. *Almost a quarter* of clients who appear to have exited the Program had spent *less than one week* in the Program, and a further *20.5%* spent *between one week and one month* in the program.

Figure 37: Clients in the Program (categories) for very short periods of time, by Site:
Clients who appear to have exited the Program

