Technical Supplement: Outpatient Survey 2014

Revision History

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The NSW Patient Survey Program

The NSW Patient Survey Program began surveying patients in NSW public facilities from 2007. From 2007 to mid-2012, the program was co-ordinated by the NSW Ministry of Health using questionnaires obtained under license from NRC Picker. Ipsos Social Research Institute Ltd (Ipsos) was contracted to manage the logistics of the survey program. Responsibility for the Patient Survey Program was transferred from the Ministry of Health to the Bureau of Health Information (BHI) in July 2012, with Ipsos continuing as the contracted partner to manage the logistics.

The aim of the program is to measure and report on patients' experiences of care in public health facilities in New South Wales (NSW), on behalf of the NSW Ministry of Health and the local health districts (LHDs).[1] The results are used as a source of performance measurement for individual hospital facilities, LHDs and NSW as a whole.

From July 2012, BHI began the process of reviewing and redeveloping these questionnaires to increase their relevance to NSW stakeholders and to supply information that could help to inform service improvement. The Outpatient Survey (OPS) was the third survey in the revised suite to be sent to patients and sampled outpatients from February or March 2014.

This document outlines the sampling method, data management and analysis of the 2014 Outpatient Survey. For information on how the questionnaire was developed, please refer to the Development Report.

The 2014 Outpatient Survey Scope

Outpatient services are an area of priority for NSW with 9,853,698 outpatient visits to public hospitals reported in 2013-14.[2] In late 2013, following consultation with the survey program's Strategic Advisory Committee and the NSW Ministry of Health, it was agreed that BHI would develop a survey of outpatients in NSW public hospitals for implementation in 2014. Additional consultation with other stakeholder identified that it was desirable for information to be provided at an outpatient service level (for example, allied health, orthopaedics, oncology) to improve the attribution and usefulness of results. This final scope specified a survey of outpatients in NSW public hospitals, sampled to allow reporting at service-level.

Definition of an 'outpatient'

Outpatients are a subset of non-admitted patients, specifically patients whose care is provided by a hospital but where the patient is not admitted for care. The types of services these patients receive vary greatly and include allied health (such as physiotherapy, social work, nutrition and psychology), dental care, dialysis, cancer treatment, medical services and surgery preparations and follow-up. The way these services are provided varies widely with the most common being a regular clinic operated by medical staff, but some patients access outpatient services in a hospital which does not have a clinic of that type.

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[1] See the Adult Admitted Patient Survey Development Report for more information (www.bhi.nsw.gov.au)
[2] Australian Institute of Health and Welfare 2015. Non-admitted patient care 2013–14: Australian hospital statistics. Health services series no. 62. Cat. no. HSE 159. Canberra: AIHW.

Survey Sample

Source of data for sampling

From 2007 to 2011, sampling for the Outpatient Survey module required LHDs (at the time, Area Health Services) to manually populate a spreadsheet of their outpatient attendances for the Ministy to draw the sample from. There were a number of issues noted with this approach:

- Extremely burdensome manual process for LHD staff
- The need for follow-up calls before the data were provided to the Ministry
- A large number of samples provided had errors (most notably incomplete fields) requiring reextraction and resubmission of the data.

These issues slowed the sampling process and delayed the mailout to patients. In addition, these files did not include service-level information which the scope of this work required.

To determine the best source to sample outpatients for early 2014, BHI consulted with the Health Systems Information, Performance and Reporting Branch (HSIPRB) of NSW Ministry of Health, which has the role of producing the samples for the NSW Patient Survey Program. HSIPRB recommended that sampling be conducted centrally from the new WebNAP database of outpatient occasions of service. Although there were known issues with WebNAP (see 'WebNAP data limitations' below), it was deemed to be superior to the manual sampling that was previously undertaken. Because this dataset is tied to funding for the service providers, it was expected that the data would become more complete with time, and that it would be sufficiently complete to be used as a basis of the sampling frame by February 2014.

WebNAP data limitations

At the time of sampling, several challenges associated with the use of WebNAP were identified, some of which only became obvious once the sampling commenced:

- The dataset had a mixture of aggregated occasions of service (OOS) data and patient level data and it was not possible to sample clinics that reported only aggregated OOS
- Even when patient level data are reported, it is not compulsory to provide personal details such as address and full name including title (Mr, Mrs, Ms etc.), all of which are required for sampling
- Access to the database is restricted to Ministry staff. As a result, sample size calculations were based on aggregate data provided on three occasions prior to actual sampling
- The level of attendance by individual patients at multiple clinics within a facility or at clinics at different facilities was not known
- The quality of the WebNAP data varies both by LHD and facility, as well as varying over time. For instance, a facility/LHD may have uploaded patient level data in some months and only aggregated data in other months. LHDs are also able to delete data from the WebNAP system at any time, for any time period
- There were other data issues, including different coding formats for sex, missing names or address information, etc
- There are over 7,000 different outpatient clinics in NSW public hospitals. This means that sampling at a clinic level for reporting would be prohibitive, requiring aggregation to some form of clinic grouping (see 'Definition of clinics for reporting and sampling' below).

Definition of clinics for reporting and sampling

Stakeholders requested that reporting of Outpatient Survey results be as granular as possible, in order to be more attributable and meaningful for providers. The first data extract from the WebNAP identified more than seven million occasions of service across more than 7,000 different clinics. Due to cost and patient volume limitations, sampling at the individual clinic level was impractical and BHI decided to use clinic specialty groups for determining the sample rather than individual clinics.

Two main options for creating clinical specialty groups were identified:

- Tier 1 classification as used by the Australian Institute of Health and Welfare (AIHW) for national reporting in hospital statistics. There are 24 Tier 1 service types defined in this group (see http://meteor.aihw.gov.au/content/index.phtml/itemId/564885).
- The Tier 2 classification, as used for Activity Based Funding. There were 133 Tier 2 clinic definitions at the time at which the sampling was being developed (see http://www.ihpa.gov.au/internet/ihpa/publishing.nsf/content/tier2-non-admit-services-definitions-manual-2013-14). Each service unit (physical clinic) is allocated to a single Tier 2 class. Tier 2 classifications depend on the type of service being undertaken as well as who provides the care.

For sampling at service-level within each hospital, it was unfeasible to use Tier 2 due to the very large number of clinic types. It was decided that sampling would be conducted using Tier 1 categories with some modification to increase the size of some categories, resulting in the BHI group codes (below). This was necessary to ensure that the sample size was sufficient for reporting, after factoring in non-response. Following consultation with expert in the Ministry and LHDs, the following groups were generated from the Tier 1 category to be used in sampling of the survey:

Table 1: Tier 1 clinic groups and BHI clinical group categories

Tier 1 code	Tier 1 description	BHI group code	Grouping for sampling
1	Allied Health	1	Allied Health
5	Cardiology	2	Medical Group
6	Endocrinology		
8	Respiratory		
9	Gastroenterology		
10	Medical		
13	Endoscopy		
15	Urology		
19	Pre-admission and Pre-anaesthesia	3	Pre-admission and Pre-anaesthesia*
16	Orthopaedic Surgery	4	Orthopaedic Surgery
12	Paediatric Medical	5	Paediatric Medical
3	Gynaecology	6	Gynaecology; Obstetrics
4	Obstetrics		
21	Dialysis	7	Dialysis and Renal Medical
24	Renal Medical		
17	Ophthalmology	8	Ophthalmology
14	Plastic Surgery	9	Other surgery
18	Ear, Nose and Throat		
22	Surgery		
23	Paediatric Surgery		
7	Oncology	10	Oncology; Chemotherapy
20	Chemotherapy		
2	Dental	Excluded	
11	General practice / primary care	Excluded	

*Pre-admission and pre-anaesthesia clinics were later removed from the results. See the section entitled 'Patient-reported clinic type' for more information.

Sample size determination

Due to the volatility in the number of outpatients, clinics and hospitals observed in the WebNAP data (across three monthly samples), BHI departed from the standard method of stratified random sampling using sample size calculations. This instability meant that sample size calculations could not be relied on to generate samples for reporting. Based on response rates for the outpatient survey 2007-11, calculations were made assuming a response rate of 30% and a target was set of 150 individual outpatients for each BHI group code in each hospital. The decision to sample a maximum of 150 outpatients in each service in each hospital was a compromise between precision and cost. It was estimated that this would result in approximately 50 responses for each service in each hospital, requiring a sample size of approximately 50,000 outpatients across NSW. Further information on sampling and the accuracy of results can be found in the 'Guide to interpreting survey differences' on BHI's website.
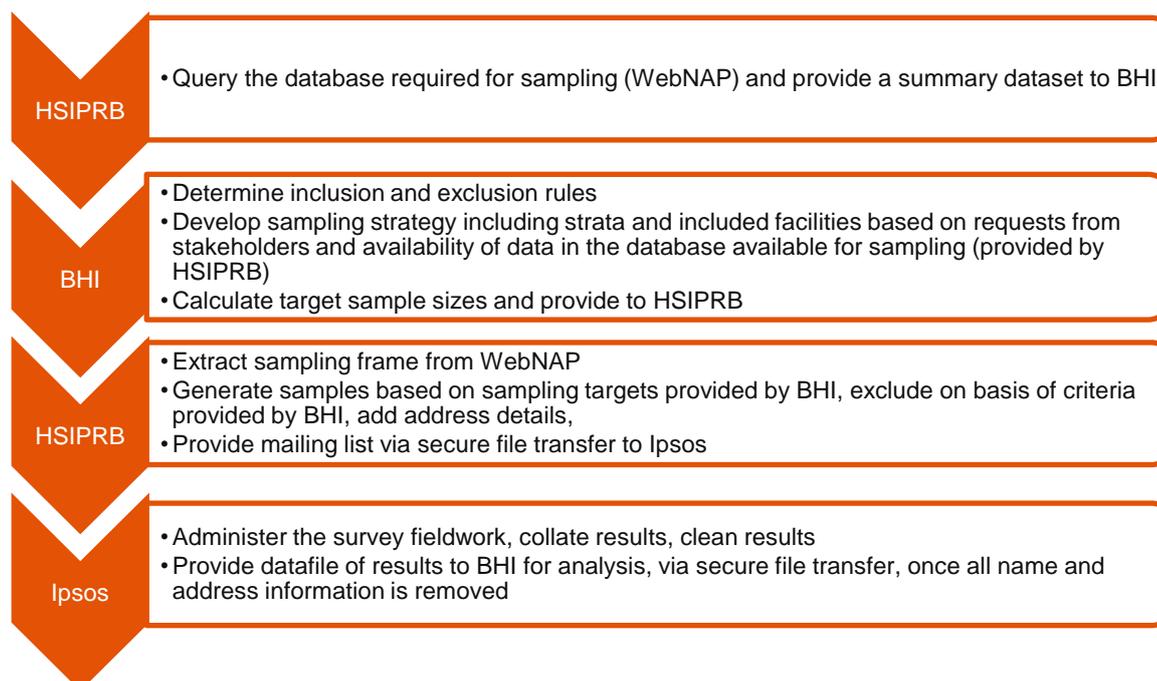
Organisational roles in producing survey samples

The survey program assures patients that their responses will be confidential and that staff at hospitals will not be able to determine who gave which response. BHI does this through a number of mechanisms, including:

- Data suppression (results for fewer than 30 responses are suppressed)
- Reporting aggregated results
- Anonymisation of patient comments
- Segregation of roles when constructing the survey samples (see below).

The sampling method for all NSW Patient Survey Program is a collaboration between staff at BHI, Ipsos SRI and the HSIPRB (see Figure 1) As detailed,BHI never has access to the names or contact details of patients who were sampled or responded to a survey.

Figure 1: Organisational responsibilities in sampling and survey processing, Outpatient Survey, 2014

HSIPRB
- Query the database required for sampling (WebNAP) and provide a summary dataset to BHI

BHI
- Determine inclusion and exclusion rules
- Develop sampling strategy including strata and included facilities based on requests from stakeholders and availability of data in the database available for sampling (provided by HSIPRB)
- Calculate target sample sizes and provide to HSIPRB

HSIPRB
- Extract sampling frame from WebNAP
- Generate samples based on sampling targets provided by BHI, exclude on basis of criteria provided by BHI, add address details,
- Provide mailing list via secure file transfer to Ipsos

Ipsos
- Administer the survey fieldwork, collate results, clean results
- Provide datafile of results to BHI for analysis, via secure file transfer, once all name and address information is removed

Inclusion criteria

As with other BHI surveys, there are specific criteria that need to be met to be included in the sample for this survey. These are summarised below.

Inclusions

- Random sample of patients who received care from an outpatient service in March 2014 (later revised to include February)
- Outpatients in hospitals within the A1 to C2 peer groups (using 2011 peer group definitions)
- Patient is allocated to one of the Tier 1 groups specified for inclusion in Table 1, provided the Tier 2 definition is not in the list of exclusions below.

Exclusions

- Patients who had been sampled in either the Adult Admitted Patient Survey or Emergency Department Patient Survey in the previous six months
- The following Tier 1 categories:
  - dental
  - general practice / primary care
- The following Tier 2 categories:
  - 40.10 sexual health
  - 20.13 palliative care
  - 40.34 (specialist) mental health
  - 20.06 general practice and primary care
- All occasions of service where the location of care is away from the hospital (off-site)
- Facilities that did not provide patient level data.[3] Murrumbidgee LHD did not provide data to WebNAP for the months being sampled and was therefore out of scope for this survey
- Obstetrics and gynaecology services for children aged 4 to 17
- Bereavement services
- All sexual assault, or similar, clinics.

Sample quality issues

The initial samples were provided to Ipsos on 30th May 2014 for patients receiving outpatient services in March 2014. On review of the samples, several issues became apparent:

- Total number of mailings from the March data was considerably less than anticipated when sample sizes were created from extract of February data provided to BHI (approximately 40,000 compared with an anticipated 47,000)

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[3] Note: for some facilities, patient level data was available in WebNAP but did not have sufficient detail for sampling (a high proportion of missing name, or address information). In these cases the patient details were matched against a second database that was more likely to have the patient details.

- Some exclusions had not been applied, such as removing community health services which, when excluded, reduced the number of mailings to approximately 34,000
- Some facilities that had provided patient level data to WebNAP in the extract provided for February 2014 patients (on which the sampling targets were based), had not provided patient level data to WebNAP for services received in March. These facilities were from NNSWLHD
- The sample had not been completely de-duplicated, so was 'per clinic visit' rather than 'per person'
- Address details for some of the sampled records were not initially obtainable
- Two or more people had been selected within some households.

As a result, the sampling was repeated and provided to Ipsos on 26th July 2014, with the following revisions:

- Exclusions were double-checked and issues, such as including community health service patients, were corrected
- February 2014 data was used for sampling for clinics in NNSWLHD
- Duplicated patients were removed
- Patients were only included if they had useable address details
- If a parent and child were selected at the same address, then only the child was included due to concern about survey fatigue if a parent had to fill out two questionnaires. In addition it was possible that if the same person filled out the two questionnaires they would mix up the two clinic visits in their responses (that is, fill in the survey while thinking of the wrong clinic visit).
- If two patients 21 years of age or older in the same household were selected, then both were included. In this case it was expected that the two individuals would fill out their own questionnaires and reflect their actual experience at their individual clinic visits.

The final sample was taken from a random survey sample of patients attending public outpatient clinics during February 2014 (for NNSWLHD) and March 2014 (for all others).

Data Management

Data collection

Upon completion of a questionnaire, the respondent returns or submits the completed survey (depending on whether they completed the paper-based questionnaire or the online questionnaire) to Ipsos. If a pen and paper-based questionnaire is returned, Ipsos scans in the answers electronically and manually enters the free text fields.

Once all of the data is collated into a single dataset, all names and addresses are removed from the dataset. All free text fields are checked for potential identifiers (names of patients, names of doctors, telephone numbers, etc.) and any that are found are replaced with "XXXX".

Following this, each record is checked for any errors in completion and reasonable adjustments (known as 'cleaning') are made to the dataset, for example, removing responses where the patient has not correctly followed questionnaire instructions or providing multiple answers to a single response question.

Finally, Ipsos uses a secure NSW Ministry of Health system to transfer the data from their secure servers to BHI's secure servers, all of which are password protected with limited staff access.

Confidentiality

As part of the survey program, patients are mailed physical copies of the survey questionnaire using their full name and address, as stored in the administrative data. Mailing of the questionnaires is conducted by Ipsos on behalf of BHI. BHI does not see or hold any name or address information.

Prior to supplying the cleaned data to BHI, Ipsos removes the names and addresses of respondents to ensure this data cannot be made available by BHI.

BHI also ensures that respondents' confidentiality is maintained by only reporting on results where there was a minimum of 30 respondents. Reporting only sufficiently large numbers improves the reliability of data as well as the chances that an individual respondent could be identified.

Data Analysis and Reporting

Patient-reported clinic type

The results of the Outpatient Survey represent patients' experiences receiving an outpatient service they indicated they received at the given hospital in the given month.

While the hospital and month attended were inserted on the cover letter of the questionnaire, the first question in the survey asks the patient what type of outpatient clinic they attended. This was added to confirm the respondent was referring to the same outpatient service they were sampled for.

Upon analysis of the data, however, it was evident that many respondents reported attending a different type of clinic to the clinic they were sampled for (using the BHI group codes). The mismatch ranged from 21%-82% across service types. Figure 2 presents an example of this mismatch for self-reported medical group (left side) against administrative medical group (right side).

Figure 2: Patient-reported versus administrative clinic type
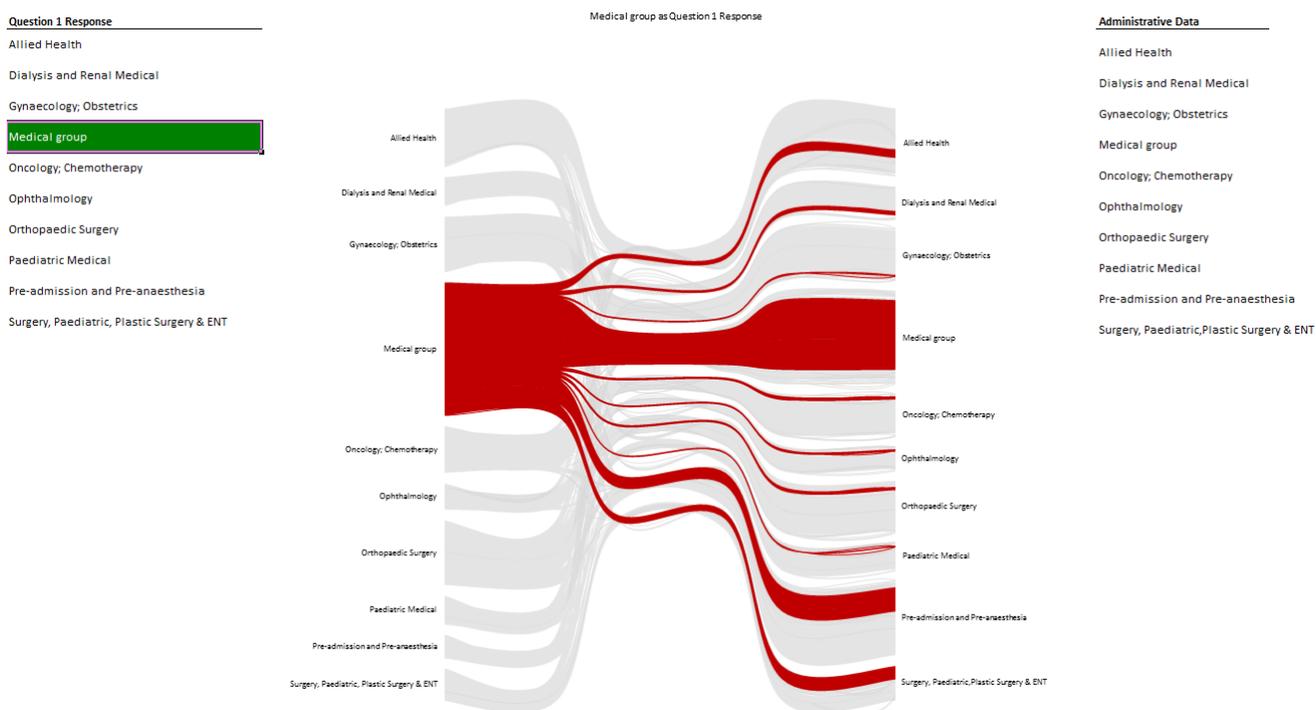
Some of this mismatch could be explained by the 20% of outpatients who attended outpatient appointments across different service types during March 2014 (ranging 11-36% across LHDs). There was also evidence in responses to the questionnaire and free text comments to support the notion that patients were answering about other specialty types. Following analysis of results and consultation with experts (including the Specialist Outpatient Services Working Group in the Ministry), it was decided that results would be more accurate, meaningful and useful if based on the service type reported by the patient, then classified into the same groups as the administrative clinic types (see Table 1).

Due to the move away from using the WebNAP data to identify which clinics patients attended, it was possible for patients to indicate that they attended an outpatient service in a clinic group for which the

hospital does not have a clinic. The delivery of an outpatient service in the absence of a related specialist clinic occurs in some hospital. For instance, there can be ophthalmology outpatient service provided by a hospital that does not have an opthalmology outpatient clinic – these services could have been provided by surgical or even medical service types.

However, after these considerations and adjustments, there was still an unacceptably high mismatch for the pre-admission and pre-anaesthesia clinic. Analysis also showed patients were typically unable to differentiate these clinics from their surgery or procedure, and that it was common to respond for the whole journey (from pre-admission, through the surgical admission, to followup clinics for surgery or allied health. Due to the potential misattribution of these results, a decision was made not to report on results for this service type.

Finally, analysis supported that the patient-reported age and sex variables were more accurate than the administrative data and are therefore used for any comparisons across these demographic subgroups.

Recoding free text outpatient service types

If a respondent was unable to determine what type of service they attended when answering question 1, they were able to select 'other outpatient clinic' and to write in a response. Respondents selecting this option were reviewed independently by three researchers before being categorised, when possible, to the service types included in the report. The following rules were agreed to ensure consistent assignment of these text entries to accepted categories:

Table 2: Rules for recoding of 'Other Outpatient Clinic: Please specify' text entries

#	Rule
1	References to Emergency Departments (i.e. Emergency, ED, A&E, etc.) or Dental were excluded from reporting
2	If the administrative clinic type was Allied Health and text entry contains "Eye", then coded to Allied Health
3	If text entry was a hospital name, clinic name or staff member name, then use Administrative clinic type
4	Any text which included "imaging" was recoded to Medical, unless administrative clinic type was Allied Health or Orthopaedic (in which case, clinic type was coded to these)
5	If respondent named a medical condition, clinic type was coded to the administrative clinic type
6	If a respondent selected one of the clinic types from the multiple choice options but also provided a freetext response, the multiple choice was used preferentially to the freetext clinic type
7	Where a respondent had both a valid response to Question 1 and an 'other specified' response, the pre-coded response from Question 1 was used to allocate results
8	Where there was no agreement the decision of the Director, Surveys and Quarterly Reports was accepted

Weighting data

The protocol of the NSW Patient Survey Program is, when possible, to 'weight' data to account for differences (bias) in the likelihood of different patient groups to respond. This is done to make the results as representative of all relevant patient experiences as possible, making the data more useful for the purposes of decision-making and service improvement.

The 2014 Outpatient Survey results have **not** been weighted for the following reasons:

- The process of weighting is to adjust the results of each patient group relative to the proportion of patients in that group at the hospital or service type. Therefore, weighting requires the number of respondents in each demographic group and the total population of patients who attended that service type during the sampling period. As patient-reported service type was used, it is not possible to determine the total population for clinics in the Outpatient Survey – this cannot be determined for patients who did not reply.
- It is not possible to weight results to provide an overall outpatient department result for hospitals, LHDs or NSW. This is due to the use of patient-reported service type but also as the sampling was set to a flat target of 150 patients rather than proportional to clinic size - the contribution of each service type to the whole outpatient result cannot be calculated.
- When the sample size is more than 5% of the population (i.e. the number of people presenting at an outpatient clinic in a given month), a 'finite population correction factor' is often utilised when analysing survey data. This adjusts the measure of variability because the opinions of a relatively large proportion of the population have been included in the sample. However, as the population for the groups being sampled are not available, applying this correction factor is not possible. This means that the results being reported are the opinions of the selected sample only. As such, it cannot be implied that the results are representative of the larger outpatient population in NSW.

Reporting NSW outpatient results

It is not possible to report results for NSW from this data for the following reasons:

- Not all LHDs or hospitals are included in the survey due to poor completeness of data in WebNAP. One entire LHD (Murrumbidgee) and multiple hospitals were not available in WebNAP at time of sampling and are not included in the survey. This decreases the representativeness of the results sufficiently that determining a NSW results is inadvisable
- Numerous other hospitals only include aggregate data in WebNAP which is not sufficient for sampling – this decreases the representativeness at NSW level further
- The sampling was conducted at BHI group code level and not clinic level. This resulted in fewer than 3,000 of the more than 7,000 public hospital outpatient clinics across NSW being randomly selected for inclusion.

Reporting whole-of-hospital outpatient results

It is not possible to report results for whole-of-hospital for the following reasons:

- The models of care differ between service types, as do the ratings of patient experience provided by respondents. Aggregation of this data would be misleading
- The composition of clinics in the survey results is not representative of the composition at hospital level, due to the sampling size approach and the use of self-reported service type. As weighting is not possible to correct for this, BHI has not provided whole-of-hospital results for this survey

Analysis and reporting

The SURVEYFREQ procedure in SAS 9.4 was used to create the results. The strata used in the analysis were facility and administrative clinic type. As menioned previously, no weighting or finite population

correction factor were included in the analysis. Results were obtained for each question by clinic type within each facility, LHD, peer group and overall by using the Table statement in the procedure. The exact (Copper-Pearson) 95% confidence intervals were used, taking into account the design effect (although, as results are not weighted, design effect would be negligible).

In Healthcare Observer, results are shown at the LHD, peer group and state level for all questions in the survey, with the exception of two open-ended questions. In the Snapshot Report, results are compared across LHDs and shown at the NSW level. The significance of the differences shown in the report (p4-5) are based on overlapping confidence intervals.

Calculation of percentages

The percentage of each response option for each question reported are determined using the following method:

Numerator

The number of survey respondents who selected a specific response option to a certain question, minus exclusions.

Denominator

The number of survey respondents who selected any of the response options to a certain question, minus exclusions.

Calculation

= numerator/denominator X100

Exclusions: Depending on the response options for a particular question, a number of exclusions can apply to the denominator:

- Response: 'don't know/can't remember' or similar non-committal response (with the exception of questions where the rate of this response was over 10% and questions that refer to the experience of a third party such as a family/carer) (see Appendix 1 for excluded responses)
- Response: invalid (i.e. respondent was meant to skip a question but did not)
- Response: where respondent indicated the question was 'not applicable' or the like
- Response: missing (with the exception of questions that allow multiple responses or a 'none of these' option, to which the missing responses are combined to create a 'none reported' variable).

In some cases, the results from several responses are combined to form a 'derived measure', as indicated in the reporting. For information about how these measures are developed, please see Appendix 2.

Appendices

Appendix 1: Excluded 'don't know'and/or 'can't remember' responses

		Allied Health	Dialysis & Renal Medical	Gynaecology & Obstetrics	Medical Group	Oncology & Chemotherapy	Ophthalmology	Orthopaedic Surgery	Paediatric Medical	Other Surgical
		%	%	%	%	%	%	%	%	%
Q6	From the time you booked this appointment to the time you went to the clinic, how long did you wait?	2	3	4	3	3	4	2	5	4
Q7	Do you think the amount of time you waited was...?	2	2	2	2	2	3	2	3	2
Q10	How long did it take you to travel to the clinic for this appointment?	0	0	1	1	0	0	0	0	0
Q17	How long after the appointment time did your appointment start?	1	1	2	2	1	3	2	2	3
Q43	Were there things for your child to do (such as books, games and toys)?	4	2	–	6	8	–	5	4	6
Q47	Were you told who to contact if you were worried about your condition or treatment after you left the clinic?	3	2	2	4	2	5	5	5	4
Q54	Were you asked for your ideas and preferences when developing this [treatment] plan?	2	2	4	3	2	3	2	1	4
Q55	Did you have to pay any out of pocket expenses for this visit (i.e. a payment that you would not get back from Medicare or private health fund)?	1	2	2	2	2	2	2	3	3
Q59	Did the health professionals you've seen change from one visit to another? [in last 12 months]	2	2	2	5	1	4	4	4	3

Appendix 2: Derived Measures

<table>
<tr><td colspan="2">Definition</td></tr>
<tr><td colspan="2">Derived measures are those for which results are calculated indirectly from respondents' answers to a survey question. These tend to be from questions that contain a 'not applicable' type response option and are used to gather information about the array of patients' needs.

Derived measures involve the grouping together of more than one response option to a question. The derived measure 'Quintile of Disadvantage' is an exception to this rule (for more information on this, please see the Data Dictionary for this measure).</td></tr>
</table>

Statistical methods

Results are expressed as the percentage of respondents who chose a specific response option or options for a question. The reported percentage is calculated as the numerator divided by the denominator (see definitions below).

Results are not weighted to any patient population characteristics.

Numerator

The number of survey respondents who selected a specific response option or specific response options to a certain question, minus exclusions.

Denominator

The number of survey respondents who selected any of the response options to a certain question, minus exclusions.

Inclusions

The following questions and responses were used in the construction of the derived measures.

Derived Measure	Original Question (in 2014 AAPS)	Derived Measure Categories	Original Question Responses
Had an appointment	Q4. Were you able to get an appointment time that suited you?	• Had appointment	• Yes • No
		• Didn't have appointment	• I didn't have an appointment
Needed parking	Q12. Was there a problem finding parking near the clinic?	• Needed parking	• Yes, a big problem • Yes, a small problem • No problem
		• Didn't need parking	• I did not need parking

Derived Measure	Original Question (in 2014 OPS)	Derived Measure Categories	Original Question Responses
Wanted to be involved in decisions about care and treatment	Q35. Were you involved, as much as you wanted to be, in decisions about your care and treatment?	• Wanted involvement	• Yes, definitely • Yes, to some extent • No
		• Didn't want involvement	• I did not want to or need to be involved
Saw more than one health professional at clinic during visit	Q36. How would you rate how well the health professionals worked together?	• Saw 2+ health professionals	• Very good • Good • Neither good nor poor • Poor • Very poor
		• Saw 1 health professional	• Not applicable - only saw one
Had religious or cultural beliefs to consider	Q38. Were your cultural or religious beliefs respected by the clinic staff?	• Had beliefs to consider	• Yes, always • Yes, sometimes • No, my beliefs were not respected
		• Beliefs not an issue	• My beliefs were not an issue
Needed information on how to manage care at home	Q46. When you left the clinic, were you given enough information about how to manage your care at home?	• Needed information	• Yes, completely • Yes, to some extent • No, I was not given enough
		• Didn't need information	• I did not need this type of information
Needed information on who to contact if worried about condition/treatment at home	Q47. Were you told who to contact if you were worried about your condition or treatment after you left the clinic?	• Needed information	• Yes • No
		• Didn't need information	• I did not need this kind of information

Derived Measure	Original Question (in 2014 AAPS)	Derived Measure Categories	Original Question Responses
Needed information about condition/ treatment to be given to GP	Q51. Did the clinic give your GP enough information about your condition or the treatment you received?	• Needed info given to GP	• Yes, completely • Yes, to some extent • No
		• Didn't need info given to GP	• Not applicable
Needed follow-up medication, tests, or treatment	Q56. Did you skip any follow-up medication, tests, or treatment recommended at this visit because of their cost?	• Needed follow-up action	• Yes • No
		• No follow-up needed	• I didn't need any of these

Exclusions

For derived measures, the following are excluded:

- Response: 'don't know/can't remember' or similar non-committal response (with the exception of questions where the rate of this response was over 10% and questions that refer to the experience of a third party such as a family/carer)
- Response: invalid (i.e. respondent was meant to skip a question but did not)
- Response: missing (with the exception of questions that allow multiple responses or a 'none of these' option, to which the missing responses are combined to create a 'none reported' variable)

Interpretation of indicator

The higher the percentage, the more respondents fall into that response category.