

Technical Supplement: Small and Rural Hospitals Survey, 2016

February 2018

Contents

The NSW Patient Survey Program	1
Organisational roles in producing survey samples	2
Inclusion criteria	3
Stage 1: First phase of screening	3
Phase 2 screening	4
Drawing of the sample	5
Data Management.....	6
Data Analysis.....	7
Weighting of data	7
Demographic characteristics of respondents to SRHS.....	11
Reporting	13
Appendix 1: Percentage of missing and 'Don't know' responses.....	15
Appendix 2: Derived measures	19

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Please note that there is the potential for minor revisions of information in this report. Please check the online version at bhi.nsw.gov.au for any amendments.

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 coordinated 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 survey 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). The results are used as a source of performance measurement for individual hospitals, LHDs and NSW as a whole.

This document outlines the sampling methodology, data management and analysis of the 2016 Small and Rural Hospitals Survey (SRHS).

For information on the development of this questionnaire, please refer to the Development Report at bhi.nsw.gov.au/nsw_patient_survey_program

More information is also available through the BHI website on how to interpret results and whether differences in the results between hospitals, LHDs or NSW are statistically different.

Organisational roles in producing survey samples

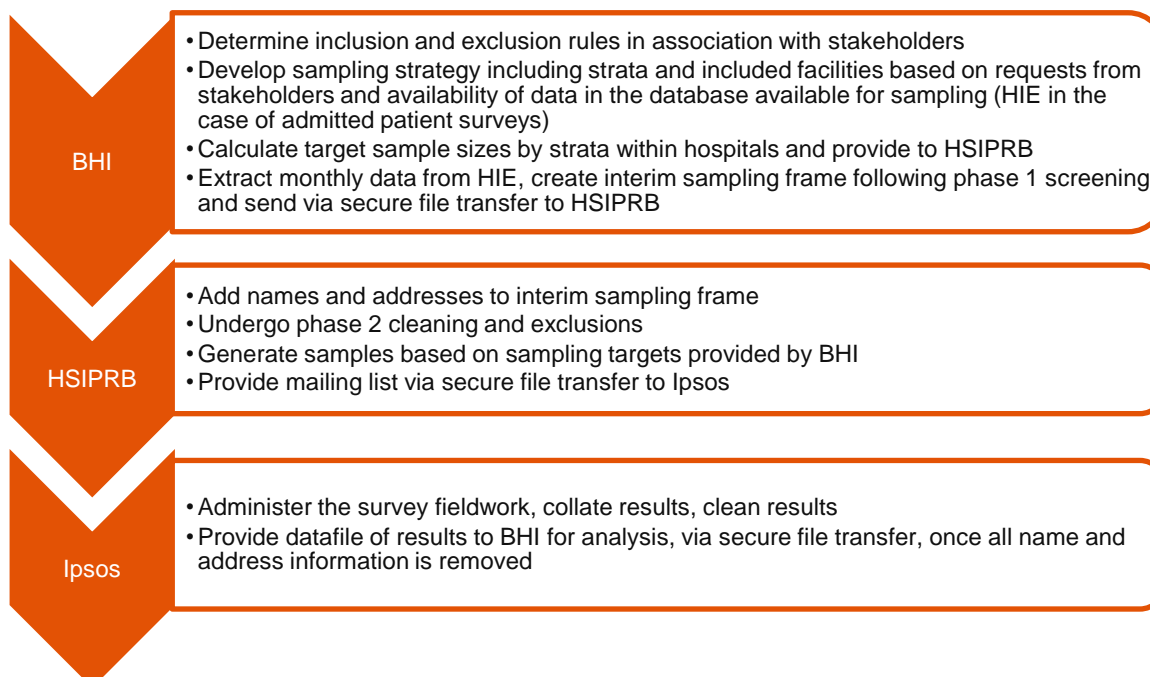
The survey program assures patients that their responses will be confidential and that staff at hospitals will not be able to determine who gave which response. BHI does this through a number of mechanisms, including:

- Data suppression (results based on 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 the survey program is a collaboration between BHI, Ipsos and the Ministry of Health's Health Systems Performance Information and Reporting Branch (HSPIRB) (see Figure 1). All surveys of admitted patients use data obtained from the Health Information Exchange (HIE).

BHI has access to de-identified unit record data from selected tables of the HIE database. Use of an encrypted patient number allows deduplication at the patient level within a hospital. For the SRHS, sampling frames are defined separately for each month, with the date of discharge used to define eligible records. Sample sizes for each included hospital are calculated in advance, as defined later in this report.

Figure 1: Organisational responsibilities in sampling and survey processing, Small and Rural Hospitals Survey, 2016



Inclusion criteria

The list of patients attending small and rural hospitals is obtained by BHI from the Health Information Exchange (HIE). There are two phases of cleaning applied prior to selection of the sample.

Stage 1: First phase of screening

The first phase of screening is applied by BHI. In this phase, a series of rules are applied to define the interim sampling frame. These criteria take into account a range of factors including: the potentially high vulnerability of particular patient groups and/or patients with particularly sensitive reasons for admission; these patients' ability to answer questions; and the relevance of the survey questions to particular patient groups.

Inclusions

- Admitted patients aged 18 years and older
- Admitted to a facility with a peer group classification:
 - D1a Community Acute with Surgery
 - D1b Community Acute without Surgery
 - D2 Community Non-Acute
 - F3 Multi-Purpose Services
 - Sub Acute
 - F6 Rehabilitation.

Exclusions

- Facilities where there were fewer than 100 admissions in 2015
- Patients who died during their hospital admission – mode of separation of 6 (Death with autopsy) or 7 (Death without autopsy)
- Acute and post-acute care services
- Patients who are not receiving either acute or rehabilitation care in hospital (Episode of care types 1 and 2)
- Patients who were admitted to a psychiatric unit during the hospital stay
- Patients who gave birth during their admission [Z37.0, Z37.2, O80-O84, procedure code of 90467, 90468, 90469, 90470 or 16520]
- Patients who experienced a stillbirth [Z37.1, Z37.3, Z37.4, Z37.6, Z37.7]
- Admitted for same-day haemodialysis – code 13100-00 in any procedure fields
- Same-day patients who stayed for less than three hours
- Same day patients transferred to another hospital
- Are admitted for a termination of pregnancy procedure [35643-03, 35640-03]

- Have treatment for maltreatment syndromes [T74] in any diagnosis field, including neglect or abandonment, physical abuse, sexual abuse, psychological abuse, other maltreatment syndromes and maltreatment syndrome, unspecified
- Have treatment for contraceptive management [Z30] in any diagnosis field, including general counselling and advice on contraception, surveillance of contraceptive drugs, surveillance of contraceptive device, other contraceptive management and contraceptive management, unspecified
- Patients with a personal history of self-harm [Z91.5] or who have intentionally self-harmed [X60-X84, Y87.0, Y34]
- Patients who experienced pregnancy with an abortive outcome [O00-O08]
- Patients with a family history of mental or behavioural disorders [Z81.8] and patients who have expressed suicidal ideation [R45.81].

Where patients had multiple visits within the sampling month, their most recent hospital stay was kept. The questionnaire asks patients to respond to the survey based on their most recent admission in a particular month.

Phase 2 screening

BHI provides the interim sampling frame to the Health System Information and Performance Reporting Branch (HSIPRB), who add patient name and address information. Data then undergo a second phase of screening. This involves exclusions for administrative/logistical reasons, or where death had been recorded after discharge for the stay used for sample selection but before the final sampling frame is prepared.

Exclusions

The following exclusion criteria are applied in this phase:

- Invalid address (including those with addresses listed as hotels, motels, nursing homes, Community Services, Mathew Talbot hostel, 100 William Street, army quarters, jails, unknown, NFA)
- Invalid name (including twin, baby of, etc.)
- Invalid date of birth
- On the 'do not contact' list
- Sampled in the previous six months for any BHI patient survey currently underway
- Had a death recorded according to the NSW Birth Deaths and Marriages Registry and/or Agency Performance and Data Collection, prior to the sample being provided to Ipsos.

The data following these exclusions are defined by BHI as the final sampling frame.

Drawing of the sample

Survey design

The dataset obtained following Phase 2 screening is referred to as the final sampling frame. It includes eligible patients admitted to public facilities with a peer group classification of D1a, D1b, D2, F3, F4 and F6 (except for Acute and Post-acute Centre (APAC) services) that reported 100 or more admissions in the state-wide HIE system during the 2014 calendar year.

A stratified sample design was applied, with each facility being defined as a stratum. Simple random sampling without replacement (SRSWOR) applied within each facility.

Although sampling is undertaken monthly, sample sizes are calculated to determine numbers over a 12 month period, as this is the period on which reporting is based.

Calculation of sample sizes and reporting frequency

The monthly sample sizes are determined ahead of time, based on data extracted from the HIE for the previous 12 month period using the same phase 1 screening as is applied during monthly sampling.

Equation 1 is used to estimate the sample size. Values used in this equation aim to provide a sample size that will give a confidence interval of ± 0.07 around an expected proportion of 0.8.

$$s_i = \frac{\chi^2 NP(1-P)}{d^2(N_i-1) + \chi^2 P(1-P)} \times \frac{1}{r_i} \quad (1)$$

Where:

s_i = desired sample size for reporting based on sampling for 12 months, for facility i

χ^2 = tabulated value of chi-squared with one degree of freedom at 5% level of significance (3.841)

N_i = population in facility i during the previous year

P = expected proportion giving positive response to the question on satisfaction with overall care (0.8), based on previous levels of response to patient surveys

d = degree of accuracy of the 95% confidence interval expressed as a proportion (± 0.07)

r_i = expected response rate in facility i

The estimated sampling size is divided evenly by 12 and provided to HSIPRB as monthly survey targets. For each month of sampling, HSIPRB randomly selects patients within each facility, with the aim of achieving the targets provided by BHI. The desired targets may not be reached in all facilities because the targets are calculated based on historic interim sampling frame data and prior to the phase 2 screening. If the response rate is lower than anticipated or if the prevalence of the variable of interest is between 20 and 80%, the confidence interval may be wider than ± 0.07 . BHI reserves the right to suppress results where the response rate is lower than a particular level.

Data Management

Data collection

Upon completion of a survey 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 paper form is returned, Ipsos then scans in the answers electronically and manually enters free text fields.

Once all of the data are collated into a single dataset, all names and addresses are removed from the dataset. Also, all text entry 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. Where necessary, adjustments are made such as removing responses where the patient has not correctly followed questionnaire instructions or where the respondent has provided multiple answers to a single response question.

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

At no stage does BHI, who analyse the data, have access to the names and contact details of the respondents. This ensures respondent answers remain confidential and identifying data can never be publicly released.

Data Analysis

Completeness of survey questionnaires

The level of survey completeness was high overall, with respondents answering, on average, 65 out of the 89 questions. Over 90% of respondents answered up to 73 questions.

Response rate

The overall response rate was 44%, ranging from 34% to 54% at the LHD level and 11% to 63% at hospital level. Response rates at the LHD and facility levels are provided in Tables 4 and 5 respectively, later in the document.

Weighting of data

During the planning phase of the Small and Rural Hospital survey, it was decided against sampling patients by age group and stay type within facilities because the majority of patients in these facilities are in the 49+ age group, and facilities generally do not cater for same day admissions.

Responses from the survey still needed to be weighted to ensure that results at the LHD and state level take into account the different sampling proportions used at the facility level.

Weighting was performed at facility level using equation (2)

$$w_i = \frac{N_i}{n_i} \quad (2)$$

Where:

N_i denotes the total number of patients eligible for the survey of the i^{th} facility.

The eligible patient numbers are based on the number of patients following the second phase of screening undertaken by the Ministry of Health.

n_i denotes the number of respondents of the i^{th} facility.

Analysis of weights

As part of the weighting process, an investigation of the weights is undertaken to ensure that undue weight is not applied to individual responses. The two most important factors considered are the ratio of the maximum to median weight, and the design effect. The design effect (DEFF) is estimated as $(1 + \text{coefficient of variance (weights)}^2)$, and estimates the variance of estimates obtained from the stratified sample used with the variance expected for a simple random sample. Sample sizes, response rates and DEFFs at the LHD and NSW level are shown in Table 4 and sample sizes and response rates at the facility level are shown in Table 5. For this survey, all respondents within a facility will have the same weight.

Table 4: Number of facilities, sample size, response rates and design effects (DEFF) by LHD and overall, SRHS, January to December 2016

LHD	Number of facilities	Surveys Mailed	Survey Responses	Response Rate	DEF F
Central Coast	1	192	90	47%	n/a
Far West	1	121	45	37%	n/a
Hunter New England	17	3112	1421	46%	1.4
Illawarra Shoalhaven	3	462	250	54%	1.1
Mid North Coast	2	322	171	53%	1.0
Murrumbidgee	25	3687	1731	47%	1.3
Nepean Blue Mountains	1	238	120	50%	n/a
Northern NSW	5	521	230	44%	1.2
Northern Sydney	2	469	254	54%	1.0
South Eastern Sydney	2	468	225	48%	1.1
South Western Sydney	1	213	93	44%	n/a
Southern NSW	5	801	390	49%	1.1
St Vincent's Health	1	191	65	34%	n/a
Sydney	1	248	97	39%	n/a
Western NSW	23	3667	1342	37%	1.3
NSW	90	14712	6524	44%	1.3

At the LHD level, the DEFFs are low compared with the Adult Admitted Patient Survey, with the maximum being 1.4. In LHDs that are represented by a single facility (see Table 4) there will be no variability in the weights. The LHDs with the largest DEFFs are those that have a large number of facilities. It is also affected by the range in patient volumes across the facilities within the LHD. In general the increase in standard errors caused by the survey design (and leading to a larger DEFF at LHD level) is more than offset by the fact that each facility that is sampled has sufficient sample size to allow facility-level reporting. In addition, the estimates at the LHD level have appropriate apportionment of respondents between large and small facilities, and there is no need to censor larger weights.

Table 5 also provides the peer group for each facility. For reporting purposes, facilities within peer groups D1a, D1b and D2 were combined, and F4 and F6 were combined, thus resulting in 3 peer groupings in Healthcare Observer.

Table 5 Peer group, sample sizes and response rates by hospital, SRHS, January to December 2016

Name	Peer group	Surveys mailed	Survey responses	Response rate
Balmain Hospital	F4	248	97	39%
Balranald Multi-Purpose Service	D2	121	45	37%
Baradine Multi-Purpose Service	F3	67	22	33%
Barham Multi-Purpose Service	D2	153	78	51%
Barraba Multi-Purpose Service	F3	177	83	47%
Berrigan Multi-Purpose Service	F3	85	51	60%
Bingara Multi-Purpose Service	F3	129	64	50%
Boggabri Multi-Purpose Service	F3	84	43	51%
Bombala Multi-Purpose Service	F3	103	46	45%
Boorowa Multi-Purpose Service	F3	85	33	39%
Bourke Multi-Purpose Service	F3	214	44	21%
Braeside Hospital	F4	213	93	44%
Braidwood Multi-Purpose Service	F3	73	45	62%
Brewarrina Multi-Purpose Service	F3	80	9	11%
Byron District Hospital	D1b	109	42	39%
Calvary Health Care Sydney	F4	243	136	56%
Canowindra Soldiers' Memorial Hospital	D2	211	98	46%
Cobar District Hospital	D1b	237	75	32%
Coledale Hospital	F4	102	59	58%
Condobolin District Hospital	D1b	223	71	32%
Coolah Multi-Purpose Service	F3	93	40	43%
Coolamon Multi-Purpose Service	F3	136	80	59%
Coonabarabran District Hospital	D1b	232	118	51%
Coonamble Multi-Purpose Service	D2	220	55	25%
Cootamundra Health Service	D1a	254	131	52%
Corowa Multi-Purpose Service	D1a	246	126	51%
Crookwell Health Service	D2	236	118	50%
Culcairn Multi-Purpose Service	F3	51	21	41%
David Berry Hospital	F4	143	87	61%
Dorrigo Plateau Multi-Purpose Service	F3	75	32	43%
Dunedoo War Memorial Multi-Purpose Service	F3	53	27	51%
Dungog District Hospital	D2	198	101	51%
Finley Health Service	D1b	226	110	49%
Gilgandra Multi-Purpose Service	F3	200	86	43%
Glen Innes District Hospital	D1a	248	122	49%
Gloucester Soldier's Memorial Hospital - Hospital Unit	D1a	248	138	56%
Greenwich Hospital	F4	234	123	53%
Grenfell Multi-Purpose Service	F3	137	60	44%
Gulgong Multi-Purpose Service	D1b	90	46	51%
Gundagai Multi-Purpose Service	D2	239	88	37%
Guyra Multi-Purpose Service	F3	160	63	39%

Name	Peer group	Surveys mailed	Survey responses	Response rate
Hay Health Service	D2	135	53	39%
Henty Multi-Purpose Service	F3	58	32	55%
Hillston Multi-Purpose Service	D2	61	23	38%
Holbrook Multi-Purpose Service	D1b	48	23	48%
Jerilderie Multi-Purpose Service	F3	58	30	52%
June Multi-Purpose Service	F3	160	76	48%
Kyogle Multi-Purpose Service	F3	231	117	51%
Lake Cargelligo Multi-Purpose Service	F3	83	30	36%
Leeton Health Service	D1a	247	93	38%
Lightning Ridge Multi-Purpose Service	F3	147	52	35%
Lockhart Multi-Purpose Service	D2	97	47	48%
Manilla Multi-Purpose Service	D2	199	78	39%
Mercy Care Centre, Young	F4	77	45	58%
Molong Multi-Purpose Service	D2	91	57	63%
Mullumbimby & District War Memorial Hospital	D1b	113	39	35%
Murrumburrah-Harden Multi-Purpose Service	D1b	197	105	53%
Narrandera Health Service	D1a	246	105	43%
Narromine District Hospital	D2	214	92	43%
Nimbin Multi-Purpose Service	F3	32	13	41%
Nyngan Multi-Purpose Service	F3	136	34	25%
Oberon Multi-Purpose Service	F3	194	84	43%
Pambula District Hospital	D1a	153	83	54%
Peak Hill Multi-Purpose Service	D2	81	31	38%
Port Kembla District Hospital	F4	217	104	48%
Prince Albert Memorial, Tenterfield	D1b	224	95	42%
Quirindi Community Hospital	D1b	206	81	39%
Royal Rehab	F6	235	131	56%
Rylstone Multi-Purpose Service	F3	158	79	50%
Scott Memorial Hospital, Scone	D1a	247	109	44%
Springwood Hospital	D1a	238	120	50%
St Joseph's Hospital, Auburn	F4	191	65	34%
Temora Health Service	D1a	236	118	50%
Tocumwal Multi-Purpose Service	D2	175	89	51%
Tomaree Community Hospital	D1b	248	120	48%
Tumbarumba Multi-Purpose Service	F3	98	42	43%
Urbenville and District Multi-Purpose Service	F3	36	19	53%
Walcha Multi-Purpose Service	F3	161	71	44%
Walgett Multi-Purpose Service	D1b	222	30	14%
War Memorial Hospital, Waverley	F6	225	89	40%
Warialda Multi-Purpose Service	F3	186	83	45%
Warren Multi-Purpose Service	F3	133	44	33%
Wauchope District Memorial Hospital	D1a	247	139	56%
Wee Waa District Hospital	D1b	215	63	29%

Name	Peer group	Surveys mailed	Survey responses	Response rate
Wellington Hospital, Bindawalla	D1b	234	88	38%
Wilson Memorial Community Hospital, Murrurundi	D2	38	22	58%
Wingham Memorial Hospital	F6	144	85	59%
Woy Woy Hospital	D2	192	90	47%
Wyalong Health Service	D1b	236	102	43%
Yass Health Service	D1b	236	98	42%

Demographic characteristics of respondents to SRHS

One of the aims of weighting is to ensure that after weighting the characteristics of the respondents closely reflect the characteristics of the patient population. Table 6 shows the percentages by actual patient volumes as well as for the unweighted and weighted survey results, by various demographic breakdowns.

Two patient population figures are shown. The first column refers to the patient population prior to the phase 2 screening process. The second column refers to the eligible patient population, from which the sample was selected.

The weighted percentage of respondents in each LHD and peer group is consistent with the proportions in the eligible patient population. It should be noted that the proportion of respondents in the 18-49 year age strata is less than half of the proportion in the eligible population, whether weighted or unweighted. This is partly due to a much lower response rate for younger patients. A similar effect is observed for Aboriginal patients.

Table 6 Demographic characteristics of patients and SRHS respondents, January to December 2016

Demographic variable	Sub-group	% in patient population	% in MoH* eligible population	% in respondents (unweighted)	% in respondents (weighted)
LHD	Central Coast	1	1	1	1
	Far West	1	0	1	0
	Hunter New England	22	24	22	24
	Illawarra Shoalhaven	2	2	4	2
	Mid North Coast	2	3	3	3
	Murrumbidgee	27	26	27	26
	Nepean Blue Mountains	2	3	2	3
	Northern NSW	5	3	4	3
	Northern Sydney	4	4	4	4
	South Eastern Sydney	4	5	3	5
	South Western Sydney	1	1	1	1
	Southern NSW	6	5	6	5
	St Vincent's Health Network	1	1	1	1

Demographic variable	Sub-group	% in patient population	% in MoH* eligible population	% in respondents (unweighted)	% in respondents (weighted)
	Sydney	2	3	1	3
	Western NSW	21	20	21	20
Peer group	D1a	28	31	20	31
	D1b	22	21	20	21
	D2	15	15	18	15
	F3	19	16	25	16
	F4	11	13	12	13
	F6	4	4	5	4
Age stratum	18-49	19	.	8	8
	50+	81	.	92	92
Stay type	Overnight	74	.	83	77
	Same Day	26	.	17	23
Aboriginal status	Neither Aboriginal nor Torres Strait Islander	93	.	98	98
	Aboriginal and/or Torres Strait Islander	7	.	2	2
Gender	Male	47	.	46	46
	Female	53	.	54	54

*MOH = NSW Ministry of Health; only information required for sampling is provided by MoH

Reporting

Confidentiality

BHI does not receive any confidential patient information. The process of mailing surveys and collation of responses are carried out by Ipsos Social Research Institute (Ipsos) on behalf of BHI. All personal identifiers, such as name, address etc., are removed from the data before it is provided to BHI.

To further ensure that respondents are not identifiable, BHI only publishes results that include a minimum of 30 respondents. For facilities or LHDs where there are too few respondents, results are suppressed. Only aggregated data are published – unit record data are never published in BHI reports.

Statistical Analysis

Data were analysed for the period from January to December 2016. Analysis was undertaken in SAS V9.4 using the SURVEYFREQ procedure, with hospital as a stratum. Results were weighted for all questions except for questions related to socio-demographic characteristics and self-reported health.

Results were generated for each question in the survey

- At NSW level, and by LHD, peer group and hospital
- Within each of these, by the following demographic characteristics:

Characteristic	Comment
Age group	18-34, 35-54, 55-74, 75+, based on self-report. Where question on year of birth is missing or invalid, administrative age was used
Self-reported gender	Where question on sex is missing or invalid, administrative data used
Education	Response “Still at secondary school” was combined with “Less than Year 12”
Country of birth	
Main language spoken at home	
Rurality of hospital (NSW only)	Based on Remoteness category of location of facility
Long-standing health conditions	Dichotomised as reported a health condition or none reported
Aboriginal status	Self-reported, dichotomised into Aboriginal and/or Torres Strait Islander or neither. Missing values were excluded rather than imputed from administrative source
Self-reported health	
Quintile of socio-economic disadvantage	Refer to the Data Dictionary: Quintile of socio-economic disadvantage
Rurality of patient residence	Based on Remoteness category of postcode of respondent

For a detailed breakdown of the proportion of missing or ‘Don’t know’ responses for each question, refer to Appendix 1.

Typically, for questions that are related to hospital performance, missing values and ‘Don’t know/can’t remember’-type responses are excluded. The exception is for ‘Don’t know/can’t remember’ responses for

questions that ask about a third party (e.g. if family had enough opportunity to talk to doctor) or that are over 10%.

Meanwhile, questions that are not related to hospital performance include results for people who responded 'Don't know/can't remember' and those who should have answered the question but did not. Results are presented only where the result was based on at least 30 respondents.

Confidence intervals

Confidence intervals can be displayed in Healthcare Observer for the most positive response option for questions related to hospital performance (with the exception of questions experiencing complications, where confidence intervals are shown for the least positive response option). 95% confidence intervals are based on modified Clopper-Pearson (exact) confidence limits for proportions, as calculated in SAS during the SURVEYFREQ procedure.

The BHI document, "Guide to Interpreting Differences" provides additional information in understanding comparison of results.

Some differences in results between hospitals may be due to differences in the demographic profile of patients attending those facilities. BHI is currently developing methods to standardise survey results in order to account for differences in patient mix and to optimise direct comparisons.

Appendix 1: Percentage of missing and ‘Don’t know’ responses

These data are sourced from the Small and Rural Hospitals Survey, January to December 2016. Data are unweighted.

Question number	Question text	Missing %	Don't know %	Missing + Don't know %
1	Was your stay in the hospital named on the cover of this booklet planned in advance or an emergency?	7.0		7.0
2	Were you transferred to this hospital from another hospital?	3.9		3.9
3	From the time a doctor said you would need to go to hospital, how long did you have to wait to be admitted?	10.3	3.5	13.8
4	Do you think the amount of time you waited was...?	8.6	2.9	11.4
5	Before your arrival, how much information about your hospital stay was provided to you by the hospital?	9.3	6.0	15.3
6	Were the staff you met on your arrival to this hospital polite and courteous?	1.3	1.3	2.6
7	Do you think the time you had to wait from arrival at this hospital until you were taken to your room or ward was...?	2.7	3.3	6.1
8	How clean were the wards or rooms you stayed in while in this hospital?	1.3		1.3
9	How clean were the toilets and bathrooms that you used while in this hospital?	2.1		2.1
10	Did you see nurses wash their hands, or use hand gel to clean their hands, before touching you?	2.8	8.7	11.5
11	Did you see doctors wash their hands, or use hand gel to clean their hands, before touching you?	3.5	12.1	15.6
12	Were you given enough privacy when being examined or treated?	2.6		2.6
13	Were you given enough privacy when discussing your condition or treatment?	3.8		3.8
14	Did you have any hospital food during this stay?	2.6		2.6
15	How would you rate the hospital food?	2.7		2.7
16	Did you have any special dietary needs (e.g. vegetarian, diabetic, food allergies, religious, cultural, or related to your treatment)?	3.8		3.8
17	Was the hospital food suitable for your dietary needs?	3.2	0.4	3.6
18	Were you treated by a doctor during your stay in this hospital?	2.9	1.7	4.6
19	If you needed to talk to a doctor, did you get the opportunity to do so?	3.2		3.2
20	When you had important questions to ask a doctor, did they answer in a way you could understand?	3.4		3.4
21	In your opinion, did the doctors who treated you know enough about your medical history?	3.7		3.7
22	If you needed to talk to a nurse, did you get the opportunity to do so?	2.4		2.4
23	When you had important questions to ask a nurse, did they answer in a way you could understand?	2.7		2.7
24	In your opinion, did the nurses who treated you know enough about your care and treatment?	2.9		2.9
25	Did nurses ask your name or check your identification band before giving you any medications, treatments or tests?	2.6	3.1	5.8
26	During your stay in this hospital, how much information about your condition or treatment was given to you?	3.7		3.7
27	Did you have worries or fears about your condition or treatment while in this hospital?	2.7		2.7

Question number	Question text	Missing %	Don't know %	Missing + Don't know %
28	Did a health professional discuss your worries or fears with you?	4.1		4.1
29	Were you involved, as much as you wanted to be, in decisions about your care and treatment?	2.9		2.9
30	If your family or someone else close to you wanted to talk to a health professional, did they get the opportunity to do so?	3.1	3.6	6.7
31	How would you rate how well the health professionals worked together?	2.6		2.6
32	Did you ever receive conflicting information about your condition or treatment from health professionals?	3.7		3.7
33	Was a call button placed within easy reach?	1.9	2.0	3.9
34	Did you feel you were treated with respect and dignity while you were in this hospital?	1.9		1.9
35	Were you ever treated unfairly for any of the reasons below?	6.6		6.6
36	Did you have confidence and trust in the health professionals treating you?	21.4		21.4
37	Were the health professionals kind and caring towards you?	21.4		21.4
38	Overall, how would you rate the health professionals who treated you?	21.4		21.4
39	While in this hospital, did you receive or see any information about how to comment or complain about your care?	23.1	23.1	46.1
40_1	During your stay in this hospital, did staff assist you when you needed help for any of the following? Eating or drinking	10.0		10.0
40_2	During your stay in this hospital, did staff assist you when you needed help for any of the following? Taking medication	9.3		9.3
40_3	During your stay in this hospital, did staff assist you when you needed help for any of the following? Going to the toilet	8.8		8.8
40_4	During your stay in this hospital, did staff assist you when you needed help for any of the following? Adjusting your position in bed	8.3		8.3
40_5	During your stay in this hospital, did staff assist you when you needed help for any of the following? Standing up or walking	9.0		9.0
40_6	During your stay in this hospital, did staff assist you when you needed help for any of the following? Getting dressed	10.4		10.4
40_7	During your stay in this hospital, did staff assist you when you needed help for any of the following? Getting in or out of a wheelchair or chair	11.0		11.0
40_8	During your stay in this hospital, did staff assist you when you needed help for any of the following? Using the telephone or television	10.8		10.8
41	Were you ever in any pain while in this hospital?	2.4		2.4
42	Do you think the hospital staff did everything they could to help manage your pain?	4.2		4.2
43	During your stay at this hospital, were you sent to another healthcare facility for tests or treatment before returning to this hospital?	3.1		3.1
44	Before leaving, did a health professional explain the reason for the visit in a way you could understand?	3.8		3.8
45	How long did you stay at the other healthcare facility before returning to this hospital?	7.5	4.3	11.8
46	What was the reason you were sent to the other healthcare facility?	4.3		4.3
47	Did you experience any of the following issues when being taken to the other healthcare facility?	7.8		7.8
48	In your opinion, was your relevant medical information provided to the healthcare professionals at this other facility?	4.4	9.6	14.0
49	Not including the reason you came to hospital, during your hospital stay, or soon afterwards, did you experience any of the following complications or problems?	8.2		8.2
50	Was the impact of this complication or problem...?	6.4		6.4
51	In your opinion, were members of the hospital staff open with you about this complication or problem?	7.2		7.2

Question number	Question text	Missing %	Don't know %	Missing + Don't know %
52	At the end of your stay in this hospital, where did you go?	4.1		4.1
53	Did you feel involved in decisions about your discharge from this hospital?	2.0		2.0
54	Thinking about when you left this hospital, were you given enough information about how to manage your care at home?	1.6		1.6
55	Did hospital staff take your family and home situation into account when planning your discharge?	1.9	1.9	3.8
56	Thinking about when you left this hospital, were adequate arrangements made by the hospital for any services you needed?	1.9		1.9
57	Did hospital staff tell you who to contact if you were worried about your condition or treatment after you left hospital?	2.2	8.0	10.2
58	Were you given or prescribed any new medication to take at home?	1.2		1.2
59	Did a health professional in this hospital explain the purpose of this medication in a way you could understand?	4.2		4.2
60	Did a health professional in this hospital tell you about medication side effects to watch for?	5.4		5.4
61	Did you feel involved in the decision to use this medication in your ongoing treatment?	5.2		5.2
62	Did you experience any of the following problems regarding your medication?	6.0		6.0
63	On the day you left this hospital, was your discharge delayed?	1.1		1.1
64	How long was the delay? [in discharge]	2.8	3.8	6.6
65	Did a member of staff explain the reason for the delay? [in discharge]	4.8		4.8
66	What were the main reasons for the delay? [in discharge]	4.6	5.1	9.7
67	How much money (that you will not get back) did you pay for expenses related to your hospital stay (e.g. hospital costs, transport, accommodation for you or those accompanying you)?	4.8	4.6	9.4
68	Overall, how would you rate the care you received while in this hospital?	1.6		1.6
69	How well organised was the care you received in this hospital?	1.8		1.8
70	If asked about your hospital experience by friends and family how would you respond?	2.1		2.1
71	Did you want to make a complaint about something that happened in this hospital?	3.5		3.5
72	Why didn't you make a complaint?	1.9		1.9
73	Did the care and treatment received in hospital help you?	2.4		2.4
74	Is the problem you went to hospital for...?	3.7		3.7
75	In the week before your hospital stay, how difficult was it for you to carry out your normal daily activities (e.g. physical activity, going to work, caring for children)?	5.0		5.0
76	About one month after your discharge from hospital, how difficult was it for you to carry out your normal daily activities?	4.3		4.3
77	In the month following your discharge, did you go to an emergency department because of complications that occurred during your recovery?	3.8	1.0	4.9
78	In the month following your discharge, were you readmitted to any hospital because of complications that occurred during your recovery?	3.9	0.9	4.7
79	What year were you born?	3.2		3.2
80	What is your gender?	1.6		1.6
81	Highest level of education completed	3.8		3.8
82	Language mainly spoken at home	1.8		1.8
83	Aboriginal and/or Torres Strait Islander	3.8		3.8
84	In general, how would you rate your health?	2.3		2.3

Question number	Question text	Missing %	Don't know %	Missing + Don't know %
85	Which, if any, of the following long-standing conditions do you have (including age related conditions)?	5.2		5.2
86	Who completed this survey?	2.7		2.7
87	The Bureau of Health Information would like your permission to link your survey answers to other information from health records relating to you which are maintained by various NSW and Commonwealth agencies (including your hospitalisations, medical visits	5.7		5.7

* Percentages for this column may not equal the sum of the “Missing %” and “Don't know %” columns because they were calculated using unrounded figures.

For respondents who did not answer these questions, information about age and gender were substituted with age and sex fields from administrative data (from the Health Information Exchange).

Appendix 2: Derived measures

Definition

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 appropriate Data Dictionary for this measure).

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 weighted as described in this report.

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.

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

Question number	Derived Measure	Original Question	Derived Measure Categories	Original Question Responses
19	Needed to talk to a doctor	Q19. If you needed to talk to a doctor, did you get the opportunity to do so?	Needed to talk to doctor No need to talk to doctor	Yes, always Yes, sometimes No, I did not get the opportunity I had no need to talk to a doctor
20	Had important questions to ask a doctor	Q20. When you had important questions to ask a doctor, did they answer in a way you could understand?	Asked doctor questions Didn't ask any questions	Yes, always Yes, sometimes No, I did not get answers I could understand I did not ask any questions
22	Needed to talk to a nurse	Q22. If you needed to talk to a nurse, did you get the opportunity to do so?	Needed to talk to nurse No need to talk to nurse	Yes, always Yes, sometimes No, I did not get the opportunity I had no need to talk to a nurse
23	Had important questions to ask a nurse	Q23. When you had important questions to ask a nurse, did they answer in a way you could understand?	Asked nurse questions Didn't ask any questions	Yes, always Yes, sometimes No, I did not get answers I could understand I did not ask any questions
26	Wanted information about condition or treatment during stay	Q26. During your stay in this hospital, how much information about your condition or treatment was given to you?	Wanted information Not applicable	Not enough The right amount Too much Not applicable to my situation
29	Wanted to be involved in decisions about care and treatment	Q29. Were you involved, as much as you wanted to be, in decisions about your care and treatment?	Wanted involvement Didn't want involvement	Yes, definitely Yes, to some extent No I was not well enough
30	Had family/someone close who wanted to talk to health professional	Q30. If your family or someone else close to you wanted to talk to a health professional, did they get the opportunity to do so?	Wanted to talk to health professional	I did not want or need to be involved Yes, definitely Yes, to some extent No, they did not get the opportunity
49	Experienced complication or problem during or shortly after hospital stay	Q49. Experienced complication or problem during or shortly after hospital stay (derived measure)	Not applicable Experienced complication	Not applicable to my situation An infection Uncontrolled bleeding A negative reaction to medication

				Complications as a result of an operation or surgical procedure
				Complications as a result of tests, X-rays or scans
				A blood clot
				A pressure wound or bed sore
				A fall
				Any other complication or problem
			None reported	None of these
				Missing
51	Complication or problem occurred during hospital stay	Q51. In your opinion, were members of the hospital staff open with you about this complication or problem?	Occurred in hospital	Yes, completely
				Yes, to some extent
				No
			Occurred after left	Not applicable, as it happened after I left
53	Wanted to be involved in decisions about their discharge	Q53. Did you feel involved in decisions about your discharge from this hospital?	Wanted involvement	Yes, definitely
				Yes, to some extent
			Didn't want involvement	No, I did not feel involved
				I did not want or need to be involved
54	Needed information on how to manage care at home	Q54. Thinking about when you left this hospital, 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
55	Needed family and home situation taken into account when planning discharge	Q55. Did hospital staff take your family and home situation into account when planning your discharge?	Had situation to consider	Yes, completely
				Yes, to some extent
				No, staff did not take my situation into account
			Not necessary	It was not necessary
56	Needed services after discharge	Q56. Thinking about when you left this hospital, were adequate arrangements made by the hospital for any services you needed?	Needed services	Yes, completely
				Yes, to some extent
				No, arrangements were not adequate
				These services are not offered in the area
			Didn't need services	It was not necessary
61	Wanted to be involved in decision to use medication in ongoing treatment	Q61. Did you feel involved in the decision to use this medication in your ongoing treatment?	Wanted involvement	Yes, completely
				Yes, to some extent
				No, I did not feel involved
			Didn't want involvement	I did not want or need to be involved