Outpatient Cancer Clinics Survey 2020

Technical Supplement

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bureau of
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information

BUREAU OF HEALTH INFORMATION
1 Reserve Road
St Leonards NSW 2065
Australia
Telephone: +61 2 9464 4444
bhi.nsw.gov.au

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

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The conclusions in this report are those of BHI and no official endorsement by the NSW Minister for Health, the NSW Ministry of Health or any other NSW public health organisation is intended or should be inferred.

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NSW Patient Survey Program

The New South Wales (NSW) Patient Survey Program began sampling patients in NSW public health facilities from 2007. Up to mid-2012, the program was coordinated by the NSW Ministry of Health (Ministry). Responsibility for the NSW Patient Survey Program was transferred from the Ministry to the Bureau of Health Information (BHI) in 2012.

BHI has a contract with a survey vendor to support data collection, while BHI conducts all survey development and analysis.

The aim of the NSW Patient Survey Program is to measure and report on patients' experiences in public healthcare facilities in NSW, on behalf of the Ministry and local health districts (LHDs). The survey program is guided by the NSW Patient Survey Program Strategy 2019–22, which ensures that all patient surveys maximise benefits to patients and deliver unique value for the NSW health system.

This document outlines the sampling methodology, data management and analysis of the results of the Outpatient Cancer Clinics Survey 2020.

For changes in the questionnaire content between the Outpatient Cancer Clinics Survey 2019 and the Outpatient Cancer Clinics Survey 2020, please refer to the development report on BHI's website at **bhi.nsw.gov.au/__data/assets/pdf_file/0011/637751/BHI_OCCS_2020_DEVREPORT.pdf**

Outpatient Cancer Clinics Survey

The Outpatient Cancer Clinics Survey 2020 was undertaken as part of the NSW Patient Survey Program. The survey was designed in collaboration with the Cancer Institute NSW, though all analyses in this report were conducted by BHI. The Outpatient Cancer Clinics Survey 2020 is the sixth undertaken, with surveys run on an annual basis since 2015.

Patients also attend these clinics for treatment for reasons other than cancer, such as haematology-related services unrelated to cancer of the blood. In the Outpatient Cancer Clinics Survey 2020, 79% of respondents said they attended the clinic because they have or have had cancer (the same percentage as in 2019).

For the first time, patients who had videoconference or telephone (telehealth) appointments were included as well as patients who received in-person care, to adapt to the changes in care delivery during the COVID-19 pandemic. Multidisciplinary case conferences where the patient was not present were excluded.

The results are used as a source of performance measurement for individual facilities, LHDs and NSW as a whole. The Cancer Institute NSW also use the results in their discussions with LHDs as part of the Reporting for Better Cancer Outcomes (RBCO) program.[1]

Definition of an outpatient cancer clinic

The Outpatient Cancer Clinics Survey targets clinics in public facilities that mainly provide oncology, chemotherapy and radiotherapy services as defined in the Independent Hospital Pricing Authority (IHPA) Non-admitted Services Classification (Tier 2).

BHI also identified additional clinics that mainly provide care for people with cancer (see Targets for sampling and drawing the sample, page 4). All identifying clinics were approved for inclusion by the relevant LHD Directors of Area Cancer Services, or their equivalent in rural settings.

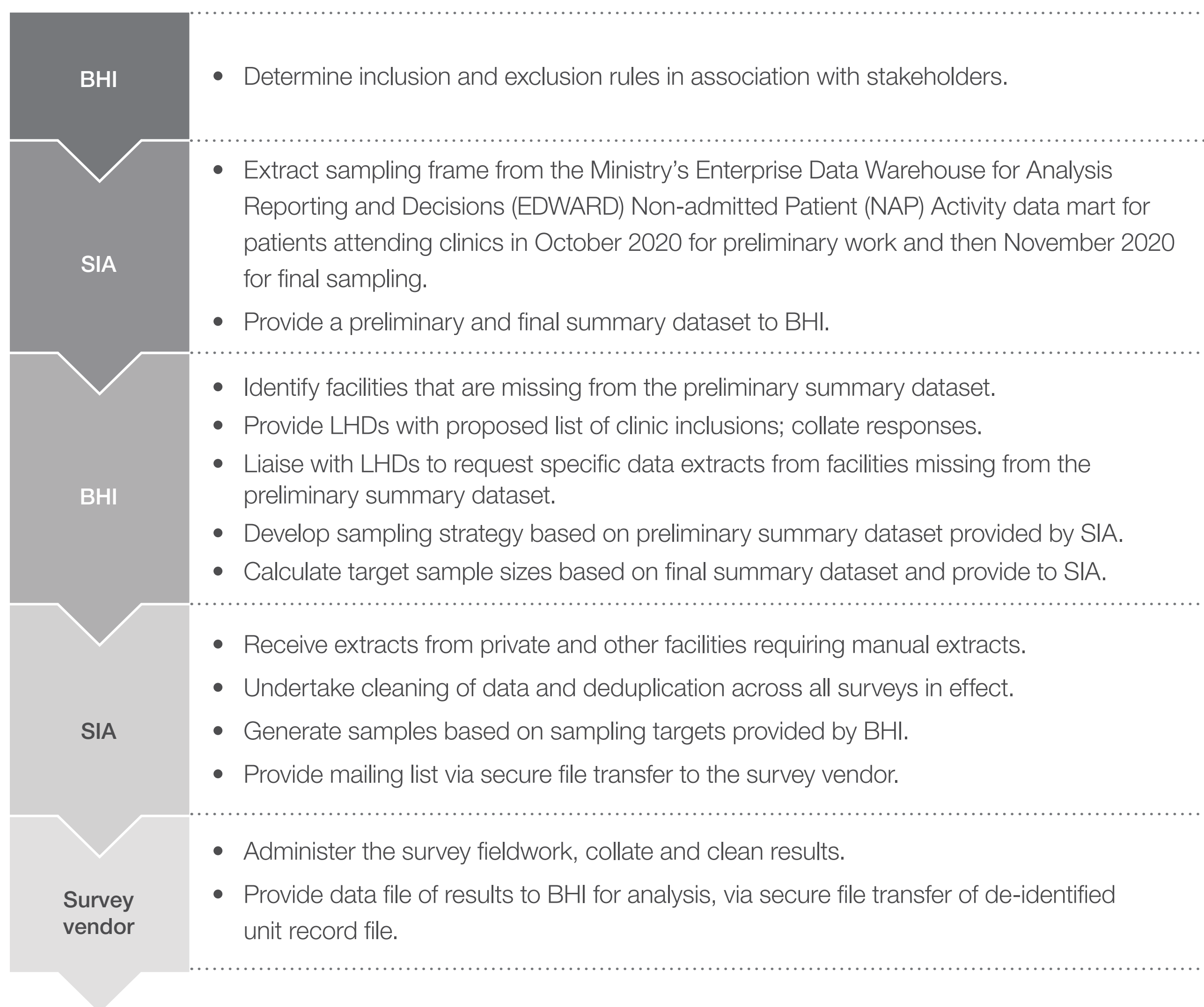
Producing survey samples

The NSW Patient Survey Program assures patients that their responses will be confidential and no identifying information will be given to the facilities they attended. 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 (Figure 1).

The sampling method for the Outpatient Cancer Clinics Survey, as with all other BHI surveys, is a collaboration between BHI, the survey vendor and the Ministry's Systems Information and Analytics (SIA) branch. Figure 1 shows the organisational responsibilities in sampling and survey processing for the Outpatient Cancer Clinics Survey 2020.

Figure 1 Organisational responsibilities in sampling and survey processing, Outpatient Cancer Clinics Survey 2020



Inclusion criteria

For the Outpatient Cancer Clinics Survey 2020, the target population included patients aged 18+ years who had an appointment at one of the included NSW outpatient cancer clinics during November 2020. The date of attendance was used to define eligible patients to participate in the survey. Where patients had multiple visits in that month, they were sampled based on their last visit in the month.

Facilities were included in the survey if there were at least 50 patients eligible for sampling or where the inclusion of the facility would assist in reportability of the LHD-level results.

Clinics in public facilities were included using the following process:

1. All clinics providing one of the seven cancer services as defined in the Independent Hospital Pricing Authority (IHPA) Non-Admitted Services Classification (Tier 2), presented in Table 1. Sydney Children's Hospital, Randwick and The Children's Hospital at Westmead were excluded as most patients from these facilities are under the age of 18 years. Clinics with 'child' or 'paed' in the clinic name were also excluded.
2. Clinics with the following terms in their clinic name: 'cancer', 'oncol*', 'radiation', 'radioth*', 'chemo*', 'breast', 'melanoma' and 'haema*' AND were approved for inclusion by the relevant LHD Directors of Area Cancer Services (see 'Other' column in Table 1). Clinics that included 'multi-disciplinary team' or 'MDT' in either the Tier 2 description or the clinic name were excluded.
3. Clinics such as haematology and genetics that were identified by the LHD Directors of Area Cancer Services at their discretion and requested to be included in the survey (see 'Other' column in Table 1).
4. The LHD Directors of Area Cancer Services or their equivalent were provided the full list of clinics and asked to remove any that did not have at least 80% of patients being treated for cancer.

Table 1 Tier 2 services eligible for sampling, Outpatient Cancer Clinics Survey 2020

Tier 2 code	Tier 2 name
10.11	Chemotherapy Treatment
10.12	Radiation Therapy – Treatment
10.20	Radiation Therapy – Simulation and Planning
20.39	Gynaecological Oncology
20.42	Medical Oncology – Consultation
20.43	Radiation Therapy – Consultation
40.52	Oncology
Other	Other Tier 2 services related to cancer treatments

Exclusions

Six facilities that were in the 2019 survey were excluded from the 2020 survey because they had fewer than 50 eligible patients: Moree Hospital, Cowra Health Service, Parkes Health Service, Cooma Hospital and Health Service, Milton Ulladulla Hospital, and Goulburn Community Health. One facility with fewer than 50 eligible patients (Broken Hill Health Service) was included to enable reporting at the LHD level, and one community health centre (Dareton Primary Health Centre) was included at the request of Far West Local Health District.

Before finalisation, the sampling frame passed through the following exclusion checks to identify patients to be excluded from the sampling frame:

- Invalid address (including those with addresses listed as hotels, motels, nursing homes, community services, Mathew Talbot Hostel, 100 William Street, army quarters, jails, unknown)
- Invalid name
- Invalid date of birth
- On the 'do not contact' list
- Sampled in the previous six months for any BHI patient survey
- Recorded as deceased according to the NSW Registry of Birth Deaths and Marriages and/or NSW Health data collection reporting, prior to the sample being provided to the survey vendor.

The result was considered by BHI as the final sampling frame.

Targets for sampling and drawing the sample

In the Outpatient Cancer Clinics Survey 2020, a maximum of 700 patients per facility were sampled. All patients attending facilities which had fewer than this target number across all included clinics were invited to undertake the survey (census sampling), while random sampling occurred in facilities with more than 700 patients, with selection stratified by clinic and sex. The use of sex in the stratified sampling in 2020 was to facilitate the oversampling of women who were treated at facilities providing radiotherapy. Almost 700 women were oversampled, however these women were excluded prior to analysis to ensure consistency in sampling between survey years. These oversampled data were submitted to the Registry of Outcomes, Value and Experience (ROVE) to report on the experiences of women who received hypofractionated radiotherapy for treatment of early breast cancer[2].

The sampling strategy in the Outpatient Cancer Clinics Survey 2019 involved census sampling for all facilities with fewer than 1,000 eligible patients, with sampling targets for facilities treating more than 1,000 eligible patients stratified across clinics proportional to the clinic size. Only face-to-face visits were included in the Outpatient Cancer Clinics Survey 2019. The change in the sampling strategy in 2020 was in response to a new BHI policy for ensuring robust reporting based on the number of responses and marginal error. Sampling a maximum of 700 patients per facility was assessed as being compliant with the policy and resulted in the total number of mailings reducing by almost 5,700 and the number of responses reducing by 4,208, compared with the 2019 survey. In 2020, patients who had videoconference or telephone (telehealth) appointments were also included. BHI's investigation found little impact on the estimates between survey years given the shifting sampling approach.

The sampling frame for the Outpatient Cancer Clinics Survey 2020 was based on data in the Ministry's Enterprise Data Warehouse for Analysis Reporting and Decisions (EDWARD) Non-admitted Patient (NAP) activity data mart. As BHI does not have access to unit record data for NAP visits, sample sizes for each facility were calculated based on aggregated clinic-level data provided by SIA. Most sampling decisions were based on data provided by SIA during October 2020 – one month before the actual sampling month. This enabled timely discussions with LHDs. If unit level data were not available through the NAP or where there were data quality issues, BHI approached the LHD to request a unit-level data extract be supplied directly to SIA to enable sampling.

In addition to clinics in public facilities, this survey includes three private facilities that are contracted by LHDs to treat public patients: Chris O'Brien Lifehouse, Riverina Cancer Care Centre and Sydney Adventist Hospital. Clinics in the Riverina Cancer Care Centre and Sydney Adventist Private Hospital provided manual extracts directly to SIA for clinics identified as in scope by the management of the facility. Chris O'Brien Lifehouse was sampled in a similar way to public facilities.

Once all unit-level data extracts from the LHDs were received, SIA created the initial sampling frame based on the inclusion criteria. This file was subsequently combined with the patient name and address information.

The number of patients eligible for sampling, and actual number of patients sampled across the 43 facilities, are provided in Appendix 1.

Data collection and analysis

Data collection

Sampled patients received a paper questionnaire and were given the option to complete the questionnaire online. Respondents were asked to return (for paper questionnaire) or submit (for electronic questionnaire) their completed questionnaire to the survey vendor. Paper questionnaires were scanned for fixed response options and manually entered in the case of free text fields.

All text fields were checked for potential identifying information (e.g. mentions of patient or staff names, dates of treatment, date of birth or age, contact details or addresses, physical appearance) and to remove offensive language. If any were found, they were then replaced with 'XXXX'. However, on rare occasions, details may not be detected by coders, and these comments should be anonymised on detection by LHDs, who are provided comments for their facilities.

Following this, each record was checked for any completion errors. Reasonable adjustments were made, such as removing responses where the respondent did not correctly follow the questionnaire's instructions or where the respondent provided multiple answers to a single response question.

At the end of this process, the survey vendor transferred the prepared de-identified records securely to BHI's servers, all of which are password protected with access by authorised staff only.

The process of data collection ensures that BHI does not have access to patient names and contact details to ensure respondent confidentiality. This process also ensures that, in the context of BHI's reporting function, identifying information can never be reported to LHDs or publicly released.

Data analysis

For the Outpatient Cancer Clinics Survey 2020, there were 20,771 questionnaires mailed and 8,801 responses received.

Completeness of questionnaires

Survey completeness is a measure of how many questions each respondent answered as a proportion of all questions in the questionnaire. The completeness of responses was very high overall, with respondents answering, on average, 61 of the 78 non-text questions (this includes questions that were correctly skipped).

Response rate

The response rate is the percentage of people sampled who actually completed and returned or submitted their responses. The overall response rate, number of mailings and number of respondents are provided in Appendix 1.

Weighting of data

Survey responses were weighted to optimise the degree to which results were representative of the experiences and outcomes of the target population. At the LHD and NSW levels, weights also ensured that the different sampling proportions used at the facility level were accounted for, so that LHD results were not unduly influenced by small facilities that had larger sampling proportions.

A weight was calculated for respondents in each stratum (facility) using the following equation:

$$w_i = \frac{N_i}{n_i}$$

where:

N_i = total number of patients eligible for the survey in the ith stratum

n_i = number of respondents in the ith stratum.

Different facilities have different mixes of clinical services and demographic distribution. Although the sample for large facilities was distributed proportionately across clinics by sex, due to small numbers at this level it was not possible to adjust weights to account for this stratification. Comparisons between facilities and NSW presented in the Snapshot report and supplementary data tables take into account demographic variables and cancer type (see 'Standardised comparisons' on page 9). The supplementary data tables provide details regarding social, demographic and health status differences in patients who had an appointment at different facilities.

Weighted percentages

All the results in the report were weighted. The weighted percentage of patients selecting each response option in the questionnaire was determined using the following method:

Numerator – the (weighted) number of survey respondents who selected a specific response option to a certain question.

Denominator – the (weighted) number of survey respondents who selected any of the response options to a certain question, minus exclusions.

Calculation – the numerator/denominator x 100.

To ensure comparability across years, the inclusion of missing and 'Don't know'/'Can't remember' in the Outpatient Cancer Clinics Survey 2020 analysis is consistent with 2019.

When reporting on questions used to identify sub-cohorts, the 'Don't know'/'Can't remember' option and missing responses were also reported. Appendix 2 presents the rates of missing or 'Don't know'/'Can't remember' responses for all questions.

It is assumed that no bias is introduced by the way patients who did not respond to the whole survey, or did not respond to specific questions, were handled. This is because it is also assumed these patients did so randomly and therefore any missing responses do not relate to the experience of care.

For some questions, the results from several responses were combined to form a 'derived measure'. For information about how these measures were developed, please see Appendix 3.

Comparing weighted and unweighted patient characteristics

One of the aims of weighting is to ensure that, after weighting, the respondents are representative of the target population. As weighting was only undertaken at the facility level, representativeness in terms of patient characteristics within facilities is not assured. Table 2 shows demographic characteristics of respondents against the target population.

The four columns denote:

1. percentage eligible in sampling frame – the percentage of patients in each category in the dataset of eligible patients used to generate the sample (NAP data mart or manual extract, November 2020)
2. percentage of sample mailed – the percentage of patients in each category provided by SIA to the survey vendor for mailing
3. percentage of respondents (unweighted) – respondents to the survey, not adjusted for unequal sampling
4. percentage of respondents (weighted) – respondents to the survey, adjusted by weighting to be representative of the target population.

Table 2 Demographic characteristics of eligible population and respondents, Outpatient Cancer Clinics Survey 2020

Demographic variable	Sub-group	% eligible in sampling frame	% of sample mailed	% of respondents (unweighted)	% of respondents (weighted)
LHD (or private facility)	Central Coast	2.4	4.1	4.7	2.4
	Chris O'Brien Lifehouse (private)	7.1	3.3	3.0	7.1
	Far West	0.2	0.2	0.2	0.2
	Hunter New England	12.0	10.8	11.9	12.0
	Illawarra Shoalhaven	6.0	6.6	8.1	6.0
	Mid North Coast	4.9	6.6	7.6	4.9
	Murrumbidgee	0.3	0.6	0.6	0.3
	Nepean Blue Mountains	4.1	3.3	3.6	4.1
	Northern NSW	4.5	7.7	7.1	4.5
	Northern Sydney	6.3	3.3	3.4	6.3
	Riverina Cancer Care Centre (private)	1.3	2.4	2.7	1.3
	South Eastern Sydney	10.3	10.4	9.3	10.3
	South Western Sydney	11.4	9.3	8.4	11.4
	Southern NSW	1.5	2.8	3.4	1.5
	St Vincent's Health Network	3.7	3.3	2.3	3.7
	Sydney	6.0	6.7	5.9	6.0
	Sydney Adventist Hospital (private)	1.7	3.0	3.6	1.7
	Western NSW	3.2	6.0	5.4	3.2
	Western Sydney	13.3	9.7	8.7	13.3
Age group	18–34	N/A	5.4	2.1	2.7
	35–54	N/A	18.9	10.8	12.1
	55–74	N/A	49.5	54.0	54.8
	75+	N/A	26.2	33.1	30.4
Sex*	Female	54.7	55.6	52.6	52.8
	Male	45.3	44.4	47.4	47.2

N/A: Data not available.
*Information on sex is drawn from administrative data.

ESAS and CASE-Cancer questions

The Outpatient Cancer Clinics Survey 2020 questionnaire also included two validated question sets that are used internationally to assess cancer symptoms and patient attitudes. The Edmonton Symptom Assessment System (ESAS)[3], which enables patient reporting of cancer symptom severity using a 10-point rating scale, and the Communication and Attitudinal Self-Efficacy scale for cancer (CASE-cancer)[4], which asks patients 12 questions that can be used to construct three dimensions about the patient's self-efficacy and attitude. Because of the time lag between the clinic visit and completing the questionnaire, and not knowing what might have happened to the patient during that time, these measures do not necessarily reflect the performance of a facility. Therefore, BHI does not report the results as measures of performance. These measures are used as part of the Cancer Institute NSW's Reporting for Better Cancer Outcomes, and are reported in the annual state-wide cancer report[1].

Standardised comparisons

To enable fairer comparisons between a facility and the NSW result, in this survey, BHI used models adjusted for patients' socio-demographic characteristics (age, gender, language and education level) and their cancer type. Therefore, when a facility is flagged as having a significantly higher or lower result than NSW, this should reflect differences in patient experiences rather than differences in a facility's patient mix. The standardised comparison is currently only applied at the facility level and not at LHD level.

The covariates included in the modelling for Outpatient Cancer Clinics Survey 2020 data are based on results of a thorough study conducted in 2018. Because of the change of the gender question from a binary form (male/female) to the multiple forms suggested by the Australian Bureau of Statistics (ABS) (see the 2020 questionnaire), the new gender question was used in the standardised comparison in the analysis of this year survey, instead of the binary version.

Methodology

For each performance question in the survey, the most positive response option was treated as the 'event' and the other response options were grouped to create a binary dependent variable. Missing data in questions were excluded from the analyses. Logistic regression mixed models were used, with facilities included as a random intercept term. Other covariates were included as fixed variates in the model.

The general formula for the logistic mixed model is:

$$g\big(E(Y_i)\big) = \boldsymbol{\beta}\boldsymbol{X_i} + b_i Z_i$$
$$b_i \sim N(0; D)$$

where:

- the link function $g(\cdot)$ is the logistic function $g(\pi_{ij}) = \log\left(\frac{\pi_{ij}}{1-\pi_{ij}}\right)$
- $\boldsymbol{X_i}$ is the design matrix for fixed effect covariates
- $\boldsymbol{\beta}$ is the vector containing estimates for fixed effect covariates
- Z_i is the design matrix for random effects, i=1 to number of facilities
- b_i is the vector of random intercepts (facilites), i=1 to number of facilities.

Covariate selection

Differences in patient experiences between groups may reflect differences in experiences of care. However, they may also reflect differences in expectations, or the way various groups tend to respond to surveys. To enable fairer comparisons across facilities, the enhanced reporting method considers which patient characteristics may be consistently associated with more positive or less positive reported experiences.

Information regarding rurality of patients and socioeconomic status (SES) was also considered as these factors may relate to response tendency. A list of all patient characteristics considered for inclusion in the model for standardised comparisons and how they were sourced is included in Table 3.

Information on patient health status – such as self-reported overall health or mental health status – or mode of survey response could also influence both experiences of care and responding tendency, but were not considered for inclusion in the model. Currently BHI only standardises comparisons for experience of care questions by adjusting patient, not clinical or health, characteristics.

For age, missing values were filled in using administrative data. Missing data for other characteristics were included as a separate category in the model.

Table 3 **Patient characteristics considered for adjustment, Outpatient Cancer Clinics Survey**

Variable	Source	Categories
Age	Survey question ('What year were you born?'), or using administrative data if missing	18–34 35–54 55–74 75+ years
Gender	Survey question ('How do you describe your gender?'), or using administrative data if missing	Male Female
Education	Survey question ('What is the highest level of education you have completed?')	Less than or completed Year 12 Trade/technical certificate/diploma University degree Postgraduate/higher degree Missing
Language mainly spoken at home	Survey question ('Which language do you mainly speak at home?')	English Language other than English Missing
Proxy response	Survey question ('Who completed this survey?')	The patient The patient with help Someone else on patient's behalf Missing
Patient type	Survey questions ('Did you attend this clinic because you have or have had cancer?', ' What was the purpose of this visit?' and 'Did you receive any treatment during this visit (chemotherapy, radiotherapy, surgery or other treatments)?')	Non-cancer patients Patients in active treatment phase and received treatment at their visit Patients in active treatment phase and had a follow-up visit Patients in non-active treatment phase and received treatment at their visit Patients in non-active treatment phase, and had a follow-up visit Missing
Cancer type	Survey question ('What was the main type of cancer you were receiving care for at this clinic?')	Prostate Breast Bowel (colon, rectal, anus) Lung Skin/melanoma Upper gastrointestinal (oesophagus, stomach, liver, pancreatic, bile ducts) Gynaecological (e.g. ovarian, endometrial, cervical) Brain or spinal column Head and neck Blood (e.g. lymphoma, leukaemia, marrow, lymph nodes) Other (e.g. bone, mesothelioma, thyroid) Cancer type not yet known Missing (including those who attended the clinics for reasons other than cancer)

Table 4 presents a list of covariates considered for adjustment by selection stage. These patient characteristics were then passed through two selection stages, as follows:

1. Univariate models were fitted for each patient characteristic (covariate) as independent variables for all performance questions in the survey. Covariates with $p<0.1$ in the univariate models for at least 50% of the questions were then considered for inclusion in the multivariate models.
2. Multivariate logistic mixed models were fitted across all performance questions using the covariates selected from stage one, with age and gender included in all models. Forward stepwise modelling was used based on the equation above, including age, gender and all additional covariates added appropriately. Interaction term between gender and cancer type/non-cancer was also tested.

Within each outcome (i.e. performance-related survey question) the models were ranked by the Akaike Information Criterion (AIC) – the model with the smallest AIC value was assigned the highest rank of 1. The AIC was recommended as an appropriate method for selecting models where different fixed effects are included as it applies a penalty for the number of covariates in order to protect against model overfitting[5].

The following values were obtained:

- number of questions for which the model was ranked first
- mean rank across all questions
- mean AIC value across all questions.

These values were used to identify the optimal model which has the list of covariates to be included in the standardised comparisons. This process is assessed independently for each survey in the NSW Patient Survey Program. That is, the optimal model had a high count of 1st ranking, a low mean rank, and a low mean AIC relative to other models, across all performance-related questions in the survey.

Finally, covariates that marginally improved the model were excluded by comparing the models' AIC values, to define a parsimonious number of patient-related covariates to use in standardised comparisons. Covariates that were not part of patient characteristics were not included in the testing. This is because standardised comparisons are intended to control for differences in patient characteristics only, and some of these factors were considered to be under the control of facility management rather than patients.

Age, gender, education, language spoken at home and cancer type were chosen for adjustment for the comparison model.

Table 4 Covariates considered for adjustment for comparisons at each selection stage, Outpatient Cancer Clinics Survey 2020

	Available for adjustment	Passed univariate model selection threshold (stage 1)	Passed multivariate model selection threshold (stage 2)	After consultation with expert panel and confirmed by sensitivity analyses
Age	✓	✓	✓	✓
Gender	✓	✓	✓	✓
Education	✓	✓	✓	✓
Language spoken at home	✓	✓	✓	✓
Cancer type	✓	✓	✓	✓
Patient type	✓	✓		

Model-based comparisons

The model calculates an estimate for each facility's random intercept and produces a p-value to indicate how likely these estimates are different from the average, or NSW value.

The exponential values of the estimated facility random intercepts based on the random intercept logistic regression model can be used to estimate the odds of a positive experience (e.g. 'very good' for overall care question) for the facility with reference to an 'average' facility. The p-value for each facility intercept estimate was used to determine if the facility was significantly different from NSW, when adjusted for patient characteristics, using the following guidelines:

- If the p-value was less than the significance level (0.01) and the solution for the facility random intercept was greater than 0, the facility was flagged as having a more positive result than NSW.
- If the p-value was less than the significance level and the random effect solution was less than 0, the facility was flagged as having a less positive result than NSW.
- If the p-value was greater than the significance level, the facility was flagged grey as not significantly different to NSW.
- When results are flagged as 'interpret with caution' (page 14) or when the model did not converge, comparisons are not highlighted due to the lack of precision in the result.

When making multiple comparisons there is an increased likelihood of flagging a difference that is not 'real', but due to chance. To mitigate this issue, a p-value of 0.01 was used to reduce the likelihood of identifying differences due to chance to one comparison in 100 (from one in 20, with the more commonly used p-value of 0.05). Sampling weights were used in all models to ensure the comparisons were representative of the NSW patient population.

Statistical software

SAS software version 9.4 was used for all statistical analyses. The PROC SURVEYFREQ procedure with a finite population correction factor and the Clopper-Pearson adjustment was used to adjust for the sampling weights when calculating the percentages and related confidence intervals. 'Facility' was included as a strata variable.

The PROC GLIMMIX procedure and 'weight statement' was used for performing logistic mixed models[6] to compare facility results with NSW, adjusting for covariates and sampling weights.

The calculation of percentages and standardised comparisons were adjusted for sampling weights using these SAS procedures.

Reporting

Confidentiality

BHI does not receive any confidential patient information and only publishes aggregated data and statistics. Any question must have a minimum of 30 respondents at reporting level (facility, LHD or NSW) to be reportable. This ensures there are enough respondents for reliable estimates, and patient confidentiality and privacy are protected.

Suppression rules

Where the number of respondents at a facility or LHD was fewer than 30, results are suppressed. For the Outpatient Cancer Clinics Survey 2020, the following LHDs and facilities had fewer than 30 respondents:

- Far West Local Health District (including Broken Hill Health Service and Dareton Primary Health Centre)
- Young Health Service
- Muswellbrook Hospital
- Griffith Base Hospital.

Respondents' results for these LHDs and facilities, however, will still contribute to their respective LHD and to the NSW results.

Patients' responses to the two free-text questions ('What was the best part of the care you received from this clinic?' and 'What part of your care provided by this clinic most needs improving?') have been supplied directly to LHDs to inform and support improvement efforts.

For questions asking about types of complications (i.e. experienced an infection, uncontrolled bleeding, a negative reaction to medication), results are reported at NSW level because of low prevalence at the facility and LHD levels. However, the combined complication prevalence (i.e. had any complication) is reported at all levels. No statistical comparison was done for these questions, as the survey data currently do not capture information on patient clinical conditions that might influence results for these questions.

Interpret with caution

All data collected using surveys are subject to sampling error (i.e. the difference between results based on a sample of a target population, and the results if all people who received care were surveyed). The 95% confidence interval of the average is expected to contain the true result 19 times out of 20.

Where the confidence interval was wider than 20 percentage points, results for individual questions are noted with a '*' to indicate 'interpret with caution'. In addition, percentages of 0 or 100, which do not have confidence intervals, are also noted as 'interpret with caution' where the number of respondents is fewer than 200.

Where the number of respondents was between 30 and 49 with a response rate at or above 20%, or the number of respondents was more than 49 with a response rate of less than 20%, results are publicly reported and an 'interpret with caution' note appended to the facility to indicate an uncertainty about the representativeness of the result compared to the target population. For the Outpatient Cancer Clinics Survey 2020, there was one LHD that had between 30 and 49 respondents with response rate at or above 20%.

Reporting by population group

In addition to reporting results for all respondents, BHI also reports the results by specific groups, as follows:

- Age
- Cancer type
- Education level
- Language spoken at home
- Gender: 'Man or male', 'women or female', 'non-binary', 'prefer to use a different term', 'prefer not to say'
- Longstanding health condition: 'had condition/s', 'none reported'
- Rurality of facility: 'major cities', 'inner regional', 'outer region or remote or very remote'.

The above results, where they satisfy BHI's suppression rules (page 14) are available on the **BHI Data Portal**. From 2020, the gender variable will have five response options as listed above.

In the Snapshot report, results are shown by the rurality of the facility the patient attended. Results included in the Snapshot report showed significant difference between urban and rural facilities after adjusting for age, gender, education level and language spoken at home (P value < 0.05). Results for all measures by the full range of rurality listed above, without significant testing, can be found on the BHI Data Portal.

In the Outpatient Cancer Clinics Survey 2020, there were 2,993 patients who attended a rural facility and 5,621 patients who attended an urban facility. The classification of rurality of facility (urban and rural) is based on the Accessibility and Remoteness Index of Australia (ARIA+), the standard Australian Bureau of Statistics measure of remoteness.[7] Results for urban facilities include those classified as 'Major Cities of Australia' according to ARIA+. Results for rural facilities include those classified as 'Inner Regional Australia', 'Outer Regional Australia', 'Remote Australia' and 'Very Remote Australia'.'

Reporting of private facilities

Chris O'Brien Lifehouse, Sydney Adventist Hospital and Riverina Cancer Care Centre are private facilities that are also contracted to provide services to public patients. These facilities differ in administrative and organisational arrangements from public facilities. Although they are contracted to provide services for some public patients, they are not under the management of the LHD in which they are located. Therefore, caution is advised when comparing results from these facilities with public facilities in the survey. These facilities' results are not included in LHD-level results but are included in the overall NSW results.

Appendix 1

Numbers of eligible population, sample sizes, mailings, responses and response rates, Outpatient Cancer Clinics Survey 2020

Table 5 Eligible population, sample, mailings, responses and response rates, at NSW, LHD and facility levels, Outpatient Cancer Clinics Survey 2020

NSW/LHD/Facility	Eligible population	Sampled (% of eligible)	Mailed (% of sampled)	Responses	Response rate (%)
NSW	39,947	21,173 (53%)	20,771 (98%)	8,801	42
LHD					
Central Coast	962	877 (91%)	861 (98%)	417	48
Far West	74	51 (69%)	51 (100%)	21	41
Hunter New England	4,796	2,295 (48%)	2,239 (98%)	1050	47
Illawarra Shoalhaven	2,382	1,392 (58%)	1,361 (98%)	711	52
Murrumbidgee	122	122 (100%)	120 (98%)	49	41
Mid North Coast	1,974	1,403 (71%)	1,370 (98%)	667	49
Nepean Blue Mountains	1,623	700 (43%)	682 (97%)	316	46
Northern NSW	1,799	1,628 (90%)	1,601 (98%)	622	39
Northern Sydney	2,501	701 (28%)	688 (98%)	300	44
South Eastern Sydney	4,096	2,187 (53%)	2,154 (98%)	822	38
Southern NSW	594	592 (100%)	578 (98%)	300	52
St Vincent's Health Network	1,477	701 (47%)	687 (98%)	203	30
South Western Sydney	4,549	1,962 (43%)	1,922 (98%)	739	38
Sydney	2,377	1,399 (59%)	1,382 (99%)	518	37
Western NSW	1,277	1,273 (100%)	1,240 (97%)	479	39
Western Sydney	5,293	2,049 (39%)	2,024 (99%)	767	38
Facility					
Armidale	278	278 (100%)	269 (97%)	117	43
Bankstown-Lidcombe	566	566 (100%)	553 (98%)	190	34
Bathurst	292	291 (100%)	284 (98%)	118	42
Blacktown	1,190	702 (59%)	691 (98%)	285	41
Bourke Street	166	166 (100%)	162 (98%)	89	55
Broken Hill	69	46 (67%)	46 (100%)	19	41
Calvary Mater	3,194	694 (22%)	682 (98%)	322	47
Campbelltown	982	701 (71%)	686 (98%)	300	44
Chris O'Brien Lifehouse (private)	2,850	699 (25%)	693 (99%)	263	38
Coffs Harbour	1,103	702 (64%)	686 (98%)	300	44
Concord	1,247	699 (56%)	691 (99%)	261	38
Dareton	5	5 (100%)	5 (100%)	2	40
Dubbo	379	377 (99%)	362 (96%)	118	33
Eurobodalla	263	262 (100%)	255 (97%)	137	54

NSW/LHD/Facility	Eligible population	Sampled (% of eligible)	Mailed (% of sampled)	Responses	Response rate (%)
Gosford	789	704 (89%)	688 (98%)	327	48
Grafton	225	224 (100%)	219 (98%)	83	38
Griffith*	62	62 (100%)	61 (98%)	25	41
John Hunter	193	193 (100%)	186 (96%)	72	39
Lismore	820	705 (86%)	693 (98%)	314	45
Liverpool	3,001	695 (23%)	683 (98%)	249	36
Manning	408	408 (100%)	394 (97%)	210	53
Muswellbrook	53	53 (100%)	52 (98%)	21	40
Nepean	1,623	700 (43%)	682 (97%)	316	46
Orange	606	605 (100%)	594 (98%)	243	41
Port Macquarie	871	701 (80%)	684 (98%)	367	54
Prince of Wales	1,490	695 (47%)	684 (98%)	264	39
Riverina Cancer Care (private)	525	507 (97%)	491 (97%)	237	48
Royal Hospital for Women	428	428 (100%)	427 (100%)	110	26
Royal North Shore	2,501	701 (28%)	688 (98%)	300	44
Royal Prince Alfred	1,130	700 (62%)	691 (99%)	257	37
Shoalhaven	955	698 (73%)	682 (98%)	374	55
South East Regional†	165	164 (99%)	161 (98%)	74	46
St George	1,805	693 (38%)	677 (98%)	295	44
St Vincent's	1,477	701 (47%)	687 (98%)	203	30
Sutherland	373	371 (99%)	366 (99%)	153	42
Sydney Adventist (private)‡	676	635 (94%)	627 (99%)	320	51
Tamworth	670	669 (100%)	656 (98%)	308	47
The Tweed	754	699 (93%)	689 (99%)	225	33
Westmead§	3,452	696 (20%)	684 (98%)	279	41
Westmead Breast Cancer Institute§	651	651 (100%)	649 (100%)	203	31
Wollongong	1,427	694 (49%)	679 (98%)	337	50
Wyong	173	173 (100%)	173 (100%)	90	52
Young	60	60 (100%)	59 (98%)	24	41

Notes: Facilities with fewer than 30 responses cannot be reported for data quality and confidentiality reasons.
*Griffith includes two entities (Griffith Community Centre and Griffith Base Hospital) that are combined for reporting.
†South East Regional includes two entitles (Bega Valley Community Health Service and South Eastern Regional Hospital) that are combined for reporting.
‡Sydney Adventist includes two entities (Sydney Adventist Private Hospital and ICON Cancer Centre Wahroonga) that are combined for reporting.
§Westmead Breast Cancer Institute is part of Westmead Hospital, but has requested to be separated for sampling and reporting purposes.

Appendix 2

Unweighted percentage of missing and 'Don't know'/'Can't remember' responses

Table 6 Unweighted percentage of missing and 'Don't know'/'Can't remember' responses by question, Outpatient Cancer Clinics Survey 2020

Number	Question	Missing %	'Don't know'/'Can't remember' %	Missing + 'Don't know'/'Can't remember' %*
1	What was the purpose of this appointment?	3.25		3.25
2	How long did it take you to travel to the clinic for this appointment?	2.44	0.22	2.66
3	Did you need parking for your clinic visit?	2.08		2.08
4	Did you have any of the following issues with parking during this visit?	2.64		2.64
5	Were the reception staff polite and courteous?	0.60		0.60
6	How long after the scheduled appointment time did your appointment actually start?	3.41	2.16	5.57
7	Were you told how long you had to wait [for appointment to start]?	5.40		5.40
8	How comfortable was the waiting area?	2.39		2.39
9	How comfortable was the treatment area?	0.85		0.85
10	How clean was the treatment area?	0.35		0.35
11	Who did you see during this appointment?	3.11		3.11
12	Did you have enough time to discuss your health issues with the health professionals you saw?	3.07		3.07
13	Did the health professionals explain things in a way you could understand?	3.20		3.20
14	During this appointment, did the health professionals know enough about your medical history?	2.99		2.99
15	How would you rate how well the health professionals worked together?	2.82		2.82
16	Did you see the health professionals wash their hands, or use hand gel to clean their hands, before touching you?	3.28	7.61	10.90
17	Did you have worries or fears about your condition or treatment?	3.32		3.32
18	Did a health professional discuss your worries or fears with you?	2.82		2.82
19	Did you have confidence and trust in the health professionals?	3.27		3.27
20	Were the health professionals kind and caring towards you?	3.25		3.25
21	Overall, how would you rate the health professionals who treated you?	3.40		3.40
22	When making decisions about your treatment, did a health professional at the clinic inform you about different treatment options?	3.76		3.76
23	Did a health professional at the clinic tell you about the risks and benefits of the treatment options?	1.77		1.77
24	Were you involved, as much as you wanted to be, in decisions about your care and treatment?	3.45		3.45
25	Did a health professional at the clinic explain the next steps of your care and treatment in a way you could understand?	3.95		3.95
26	Did you ever receive conflicting information about your condition or treatment from the health professionals?	3.78		3.78
27	Do you have a written care plan for your current or ongoing care?	4.86	5.81	10.67

Number	Question	Missing %	'Don't know'/'Can't remember' %	Missing + 'Don't know'/'Can't remember' %*
28	Were you asked about your preferences for care and treatment when developing this plan?	2.78	10.98	13.76
29	At your November appointment, did the health professionals review your care plan with you?	2.40	7.29	9.69
30	Did you receive any treatment during this appointment (chemotherapy, radiotherapy, surgery or other treatments)?	3.44		3.44
31	Did a health professional at the clinic explain what would be done during your treatment in a way you could understand?	3.80		3.80
32	Did a health professional at the clinic tell you about possible side effects of your treatment?	4.25		4.25
33	Were you given enough information about how to manage the side effects of your treatment?	5.01		5.01
34	During this appointment, were you given, or prescribed, any new medication to take at home?	2.18		2.18
35	Did a health professional at the clinic explain the purpose of this [new] medication in a way you could understand?	2.73		2.73
36	Did a health professional at the clinic tell you about side effects of this [new] medication to watch for?	3.01		3.01
37	Were you told who to contact if you were worried about your condition or treatment after your appointment?	2.17	2.77	4.94
38	Did a health professional at the clinic give your family or someone close to you enough information to help care for you at home?	2.53	1.19	3.73
39	Were you treated with respect and dignity during your appointment?	1.03		1.03
40	Were you given enough privacy when being examined or treated?	1.98		1.98
41	Were you given enough privacy when discussing your condition or treatment?	1.93		1.93
42	Were you ever treated unfairly for any of the reasons below?	4.02		4.02
43	Were your cultural or religious beliefs respected by the clinic staff?	2.76		2.76
44	During your appointment or soon afterwards, did you experience any of the following complications or problems?	3.44		3.44
45	Was the impact of this complication or problem...?	4.04		4.04
46	In your opinion, were the health professionals open with you about this complication or problem?	3.68		3.68
47	In the past three months, have you gone to an emergency department because of complications related to the care you received?	2.37	0.62	3.00
48	Did a staff member at this clinic ask you if you smoked/used tobacco?	2.07	16.15	18.21
49	At the time of your appointment, how often were you smoking/using tobacco?	2.62		2.62
50	Has a staff member at this clinic done any of the following in the past year?	4.80	7.75	12.55
51	Overall, how would you rate the care you received from the clinic?	1.07		1.07
52	If asked about your clinic experience by friends and family, how would you respond?	1.35		1.35

Number	Question	Missing %	'Don't know'/'Can't remember' %	Missing + 'Don't know'/'Can't remember' %*
53	How well organised was the care you received from the clinic?	1.53		1.53
54	[At this cancer clinic over the past six months] How much were your out-of-pocket expenses for medication related to these appointments?	2.09	3.43	5.52
55	[At this cancer clinic over the past six months] How much were your out-of-pocket expenses for consultations, tests, surgery or treatment related to these appointments (excluding medication)?	2.30	4.18	6.48
56	[At this cancer clinic over the past six months] How much were your out-of-pocket expenses for other costs related to these appointments (e.g. travel, petrol, parking, accommodation)?	2.12	3.17	5.29
57	Did you attend this clinic because you have or have had cancer?	2.20		2.20
58	Is this the first time you have had cancer?	4.72		4.72
59	What was the main type of cancer you were receiving care for at this clinic?	7.96		7.96
60	Which of the following statements best describes how well you are able to carry out ordinary tasks and daily activities? Over the past month I would generally rate my activity as...	3.41		3.41
61	How has your current cancer responded to treatment?	6.71		6.71
62	How long has it been since you first received treatment for this cancer?	1.88	0.54	2.42
63	In the past three months, what treatment have you received for your cancer?	3.20		3.20
64_01	Rating of cancer symptom severity: Pain	4.80		4.80
64_02	Rating of cancer symptom severity: Tiredness	6.02		6.02
64_03	Rating of cancer symptom severity: Nausea	5.14		5.14
64_04	Rating of cancer symptom severity: Depression	5.41		5.41
64_05	Rating of cancer symptom severity: Anxiety	5.85		5.85
64_06	Rating of cancer symptom severity: Drowsiness	5.91		5.91
64_07	Rating of cancer symptom severity: Loss of appetite	6.37		6.37
64_08	Rating of cancer symptom severity: Wellbeing	7.51		7.51
64_09	Rating of cancer symptom severity: Shortness of breath	5.55		5.55
65_01	I know that I will be able to deal with any unexpected health problems	7.44		7.44
65_02	I am confident in my ability to understand written information about cancer	6.14		6.14
65_03	I am confident in my ability to understand my doctor's instructions	5.75		5.75
65_04	It is easy for me to actively participate in decisions about my treatment	6.42		6.42
65_05	I won't let cancer get me down	6.29		6.29
65_06	It is easy for me to keep a positive attitude	5.65		5.65
65_07	It is easy for me to maintain a sense of humour	5.84		5.84
65_08	I am confident that I can control my negative feelings about cancer	6.59		6.59
65_09	If I don't understand something, it is easy for me to ask for help	5.74		5.74
65_10	It is easy for me to ask nurses questions	6.15		6.15

Number	Question	Missing %	'Don't know'/'Can't remember' %	Missing + 'Don't know'/'Can't remember' %*
65_11	It is easy for me to ask my doctor questions	5.32		5.32
65_12	It is easy for me to get information about cancer	5.79		5.79
66	What year were you born?	1.28		1.28
67	How do you describe your gender?	1.15		1.15
68	What is the highest level of education you have completed?	2.01		2.01
69	Which language do you mainly speak at home?	1.39		1.39
70	Did you need, or would you have liked, to use an interpreter at any stage while you were at the clinic?	1.61		1.61
71	Did the clinic provide an interpreter when you needed one?	2.21		2.21
72	Are you of Aboriginal origin, Torres Strait Islander origin, or both?	2.23		2.23
73	Did you receive support, or the offer of support, from an Aboriginal Health Worker during your November appointment?	8.76	7.30	16.06
74	Which, if any, of the following longstanding conditions do you have (including age-related conditions)?	3.17		3.17
75	Does this condition(s) cause you difficulties with your day-to-day activities?	3.01		3.01
76	Are you a participant of the National Disability Insurance Scheme (NDIS)?	3.46	5.70	9.17
77	Who completed this survey?	1.57		1.57
78	Do you give permission for the Bureau of Health Information to link your answers from this survey to health records related to you (the patient)?	3.97		3.97

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

Appendix 3

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 patients' needs.

Derived measures involve the grouping together of more than one response option to a question. The derived measure 'Quintile of disadvantage', which is not listed in Table 7, is an exception to this rule. For more information on this, please refer to the Data Dictionary: Quintile of disadvantage on BHI's website at **bhi.nsw.gov.au/__data/assets/pdf_file/0016/300616/Quintile_of_Disadvantage.pdf**.

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/s 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.

Exclusions

For derived measures, the following are usually excluded:

- Response: 'don't know'/'can't remember' or similar non-committal response
- 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.

Table 7 shows the questions and responses used in the construction of the derived measures.

Table 7 **Derived measures for the Outpatient Cancer Clinics Survey 2020**

Derived measure	Original question	Derived measure categories	Original question responses
Appointment included either chemotherapy, immunotherapy, radiotherapy, transfusion, and/or surgical procedure	Q1. What was the purpose of this appointment?	To receive treatment	Chemotherapy
			Radiotherapy
			Immunotherapy or hormone therapy
			Transfusion
			Surgical procedure
			Have tests, X-rays or scans
		Other purpose of visit	Receive test, X-ray or scan results
			Medical diagnosis or advice
			Follow-up after surgery
			Treatment review
			Regular check-up/long-term follow-up
			Other reason
Had telehealth appointment	Q2. How long did it take you to travel to the clinic for this appointment?	Telehealth appointment	Not applicable, as I had a phone/video appointment
		In-person appointment	Less than 30 minutes
			30 to 59 minutes
			1 hour to under 2 hours
			2 hours or more
Experienced issues with parking	Q4. Did you have any of the following issues with parking during this visit?	Yes	No car park at the clinic
			The car park was full
			Too few disabled parking spaces
			Expensive parking fees
			Had to walk a long way from the car park
		No	None of these issues
Had a scheduled appointment	Q6. How long after the scheduled appointment time did your appointment actually start?	Had a scheduled appointment	On time, or early
			Less than 15 minutes
			15 to 29 minutes
			30 to 59 minutes
			60 minutes or more
		Did not have scheduled appointment	I didn't have an appointment

Derived measure	Original question	Derived measure categories	Original question responses
Used waiting area	Q8. How comfortable was the waiting area?	Used waiting area	Very comfortable
			Fairly comfortable
			Not very comfortable
			Not at all comfortable
		Did not use waiting area	Not applicable, as I had a phone/video appointment
Used treatment area	Q9. How comfortable was the treatment area?	Used treatment area	Very comfortable
			Fairly comfortable
			Not very comfortable
			Not at all comfortable
		Did not use treatment area	I did not go to a treatment area at the clinic
Saw multiple health professionals	Q15. How would you rate how well the health professionals worked together?	Saw two or more health professionals	Very good
			Good
			Neither good nor poor
			Poor
			Very poor
		Saw one health professional	Not applicable – only saw one
Had opportunity to make decisions or discuss treatment options	Q22. When making decisions about your treatment, did a health professional at the clinic inform you about different treatment options?	Had opportunity to make decisions or discuss treatment options	Yes, always
			Yes, sometimes
			No, treatment options were not discussed
		Did not have opportunity to make decisions or discuss treatment options	Not applicable to my situation
Wanted or needed to be involved in decisions about care and treatment	Q24. Were you involved, as much as you wanted to be, in decisions about your care and treatment?	Wanted or needed to be involved	Yes, definitely
			Yes, to some extent
			No
		Did not want or need to be involved	I did not want or need to be involved
Needed a written care plan	Q27. Do you have a written care plan for your current or ongoing care?	Needed a written care plan	Yes
			No
		Did not need a written care plan	I do not need one
		Don't know/can't remember	Don't know/can't remember

Derived measure	Original question	Derived measure categories	Original question responses
Treated unfairly	Q42. Were you ever treated unfairly for any of the reasons below?	Treated unfairly	Age
			Sex
			Aboriginal background
			Ethnic background
			Religion
			Sexual orientation
			Disability
			Marital status
			Something else
		Not treated unfairly	I was not treated unfairly
Had religious or cultural beliefs to consider	Q43. 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
Experienced a complication	Q44. During your appointment or soon afterwards, did you experience any of the following complications or problems?	Had complication	An infection
			Uncontrolled bleeding
			An unexpected negative reaction to medication
			A complication as a result of tests or procedures
			Severe pain due to the treatment
			Lymphoedema (chronic excessive swelling)
			Severe anxiety or worry
			Any other complication or problem
		None reported	None
			Missing
Complication occurred during appointment	Q46. In your opinion, were the health professionals open with you about this complication or problem?	Occurred during appointment	Yes, completely
			Yes, to some extent
			No
		Occurred after appointment	Not applicable, as it happened after my appointment
Smoking/using tobacco at time of appointment	Q49. At the time of your appointment, how often were you smoking/using tobacco?	Currently smoking/ using tobacco	Some days
			Every day
		Not currently smoking/ using tobacco	I've never smoked
			Not at all, I’ve quit smoking

Derived measure	Original question	Derived measure categories	Original question responses
Advised and/or given support to quit smoking by clinic staff	Q50. Has a staff member at this clinic done any of the following in the past year?	Yes	Advised you to quit smoking
			Offered to refer you to the Quitline or a smoking support service/professional
			Offered you nicotine replacement therapy (e.g. patches, gum)
			Provided other help to quit smoking
		No	None of the above
Currently undergoing active cancer treatment	Q61. How has your current cancer responded to treatment?	Active treatment phase	I am in the course of treatment and I can't tell yet how my cancer has responded
			My cancer is being treated again because it has not responded fully to treatment
		Non-active treatment phase	Treatment has not yet started for this cancer
			The treatment has been effective and I have no signs or symptoms of cancer
			I have finished the course of treatment but my cancer is still present
			I am not in active treatment but I am on 'Watch and Wait'
			My cancer has not been treated at all
Received cancer treatment in the past three months	Q63. In the past three months, what treatment have you received for your cancer?	Yes	Radiotherapy
			Chemotherapy (including hormone therapy, immunotherapy and targeted drug therapy)
			Surgery
			Other treatment (e.g. bone marrow transplant)
		No	I have not received treatment in the past three months

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7. For more information, refer to **abs.gov.au/websitedbs/d3310114.nsf/home/remoteness+structure**

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About the Bureau of Health Information

The Bureau of Health Information (BHI) is a board-governed organisation that provides independent information about the performance of the NSW healthcare system.

BHI was established in 2009 and supports the accountability of the healthcare system by providing regular and detailed information to the community, government and healthcare professionals. This in turn supports quality improvement by highlighting how well the healthcare system is functioning and where there are opportunities to improve.

BHI manages the NSW Patient Survey Program, gathering information from patients about their experiences and outcomes of care in public hospitals and other healthcare facilities.

BHI publishes a range of reports and information products, including interactive tools, that provide objective, accurate and meaningful information about how the health system is performing.

BHI's work relies on the efforts of a wide range of healthcare, data and policy experts. All of our assessment efforts leverage the work of hospital coders, analysts, technicians and healthcare providers who gather, codify and supply data. Our public reporting of performance information is enabled and enhanced by the infrastructure, expertise and stewardship provided by colleagues from NSW Health and its pillar organisations.

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