National Non-admitted and Subacute admitted Costing Study

30 September 2014

EY

Building a better working world

Executive Summary

The Independent Hospital Pricing Authority (IHPA) is an independent government agency established by the Commonwealth as part of the _National Health Reform Act 2011_. IHPA was established to contribute to significant reforms to improve Australian public hospitals. A major component of these reforms is the implementation of national Activity Based Funding (ABF). The implementation of ABF provides incentives for efficiency and increases transparency in the delivery and funding of public hospital services across Australia.

IHPA's primary function is to calculate and deliver an annual National Efficient Price (NEP). The NEP is a major determinant of the level of Australian Government funding for public hospital services and provides a price signal or benchmark for the efficient cost of providing public hospital services. IHPA undertakes several major areas of work designed to inform the annual determination of the NEP, including ongoing consultation with all Australian health departments, expert advisory committees and key stakeholders.

In determining the 2012-13 and 2013-14 NEP, it became apparent that the reliability and representativeness of non-admitted costing data was less than ideal. This was demonstrated by the lack of cost data from some jurisdictions and highly variable costs from others.

IHPA also lacked enough robust cost data for subacute services to inform the calculation of price weight for AN-SNAP classified patients.

As a result, the Pricing Authority determined that a prospective costing study should be carried out to inform the 2014-15 NEP. IHPA commissioned Ernst and Young (EY) to undertake this study in collaboration with jurisdictions between 1 June 2013 and 30 November 2013. This report describes the processes adopted in the conduct of this study.

Study Overview

In this study, EY worked collaboratively with IHPA and the project steering committee (which included nominated representatives from each jurisdiction) to develop and deploy a methodology to collect a definitive baseline dataset of patient level cost data that can be used by IHPA for multiple purposes including:

- producing costs, price and service weights,

- informing the development of current and future classifications, and

- informing the refinement of national costing standards.

Data collection across the two services types of non-admitted and subacute admitted was undertaken at 43 sites across Australia, capturing over 500,000 patient service events and involving direct time data collection by over 2,000 clinicians. Appendix C lists the participating sites by jurisdiction and Table 1.2 Part B lists hospital participation by service area.

The study objective was the construction of a costed dataset that could be used by IHPA to set national prices, improve the classification of patients and the national pricing framework. Analysis of cost data and derivation of the national efficient price for non-admitted and subacute admitted services was outside the scope of the study. To gauge the reliability of the costed dataset constructed, some preliminary time based data are presented in the report to provide insight into the datasets. In addition quality checks were undertaken with the processes and associated results being found within Part A, Section 4.

This report presents the outcomes of the study in two distinct parts.

Part A of the report relates to the data coverage of both non-admitted and admitted subacute services. This includes a presentation of some of the key attributes and findings of the collected data.

Part B of the report provides the reader with the technical details describing the construction and implementation of the study. Cross referencing between the respective sections of the report is made throughout to assist the reader.

Study Approach

The study comprised a 'bottom up' data collection of service events to understand direct and potential cost dependent variables. This data collection was done by capturing data through a manually completed form and through the extraction of system generated information. The later included both additional diagnostic information and where possible, system generated clinician time. The prescribed process focussed on collecting cost driver attributes such as;

- direct minutes of clinician time attributable to each event,

- indirect minutes of clinician time attributed to each event, and

- classification description elements e.g. Australian National Subacute and Non-Acute Patient (AN-SNAP) classification and phase of care

The specifications outlining the methods and data items to be collected within the study are detailed in the study *Reference Manual* which appears as Appendix EE to this report.

Time based data was principally collected via a manual data collection form, tailored to both non-admitted and subacute admitted services (refer Part B Section 4). To ease data collection requirements on participating sites Optical Character Recognition (OCR) compatible forms and a third party data processing company (Datatime Services) was utilised. Where such data were accurately collected on a routine basis on locally developed ICT systems, hospitals were encouraged to extract the information and provide their data electronically. This was largely restricted to allied health professional services, although some "specialist service" specific data was also provided in this format (refer to Part A, Section 4 and Appendix G through J for further detail).

In addition, the study sought to collect data from pathology, imaging, and pharmacy services via electronic extracts and then link these records to the time based data using hospital code, clinic or ward code, medical record number and date of service. This process resulted in the receipt, review, importing and linking of over 1,250 extracted data files (representing 88% of the key cost related diagnostic files required). Further details on the linkage process are provided in Part A, Section 4. Through these processes the study generated a 'bottom up' patient cost collection with costing of key direct cost 'buckets'.

Studies of this scale and involving hospitals of the size and complexity embodied by this project need to embrace a degree of flexibility to ensure co-operation and participation is maintained over the course of the study. To this extent, a staggered start date was adopted, allowing sites to commence data collection at a time that best suited their circumstances. To accommodate the costing program and timetable of IHPA, the study constructed datasets in two distinct tranches.

- The first tranche providing a costed patient level file incorporating data collection up to 30 August 2013 for use in FY14/15 NEP development.

- The second file or Tranche 2 being a cumulative file consisting of Tranche 1 and all data captured up until 31 October 2013.

The detailed approach adopted in the data collection is outlined in Part B Section 4.

Steering Committee & Project Direction

Throughout the project the Steering Committee and to a lesser extent the Jurisdictional Advisory Committee (JAC) and Clinical Advisory Committee (CAC) provided direction and oversight on the design and implementation of the data collection. Such oversight included, but was not limited to; collection methodology, manual form design, issues resolution and costing methodology.

Data Coverage and key attributes

The data collected over the twelve week period resulted in an analysis of:

- Non-admitted dataset containing 460,889 records
- Subacute admitted dataset containing 49,241 records.

Non-admitted services

The non-admitted dataset contains 460,889 records consisting of 10,460 group encounters and 450,429 individual encounters representing all but 13 tier 2 clinics represented in the collection. It should be noted that some of the tier 2 clinics contained in this non collected list relate to imaging examinations that are not service events (so not separately counted) but bundled with the primary outpatient attendance that generated the exam request.

Further, whilst data are not reported against some tier 2 clinics, primarily associated with allied health and/or clinical nurse intervention classes, data for the comparable medical consultation clinics were reported within the study. During onsite visits, the study team were made aware that for some patient encounters, the patient may be seen by the medical officer and then followed up with further consultations/interactions with an allied health professional and/or a nurse within the same clinic and session. In these instances, the encounter is recorded once and attributed to the medical consultation class.

Preliminary analyses of the variation within classes provided in Part A Sections 1 and 2 and Appendices L through to T shows the depth of the database.

More detailed analyses will provide further insight into the appropriateness of fit of the current tier 2 classification system, where further standardisation in counting and reporting is required and where there are areas warranting classification refinement.

Subacute admitted services

The subacute admitted dataset contains 49,241 records each representing a single day in the provision of care across the five subacute care types. The Australian National Subacute and Non-Acute Patient (AN-SNAP) classification system is structured around these five subacute care types, with AN-SNAP classes aligned to each. The study revealed that not all hospitals classify using AN-SNAP and hence not all records were able to be allocated an AN-SNAP classification. Part A, Sections 1 and 2 also highlights that AN-SNAP classifications have been assigned to patients outside the care type for which they represent. These instances have been highlighted in grey within the tables describing the AN-SNAP data coverage.

Time based outcomes

The principle determinant of costs within a patient encounter is the labour component which was the foundational element within the data collection.

The results of the collection by professional staff are as follows.

- When averaging the encounters where specific clinician time was recorded the average time for those encounters within the dataset were 27.43 minutes for medical staff, 29.49 minutes for nursing staff and 47.52 minutes for allied health professionals.

- Results for subacute admitted services are represented as an average of all AN-SNAP classes and by bed day. As with non-admitted services these are also shown per care type and AN-SNAP class within the report. The time per bed day reported were 26.16 for medical staff, 266.83 minutes for nursing staff and 48.64 for allied health professionals.

Costing Outcomes

Using the costing methodology documented in Part A, Section 3 the following average costs were calculated.

- Within non-admitted services the average cost calculated per encounter was $257.29

- Results for subacute admitted services represented as an average per bed day for all care types is $719.53

Conclusion

Data collection projects of this size are not without their challenges. The specific data needs of this project from a quality and integrity perspective have had to be balanced with the project timing, resources and ability for participants to provide the required data, in the right format or at the desired time. As a result the dataset is not as large as originally desired and does contain some data deficits identified within this report. Missing data not material to costing like missing dates of birth (DOB), financial class and or admission and discharge dates can also be identified.

The results of this study however have provided IHPA with a robust cost dataset that provides direct cost allocated with a level of accuracy that has not previously been possible. This dataset can be used to understand the underlying cost of treatment provided to both non-admitted and subacute admitted patients as illustrated in Part A Sections 1 and 2 of this report. The study also captured data rich in encounter characteristics that can be used to support further classification development in these areas. The time based data can also provide a national service weight reference table that can support local clinical costing until such time as data capture is improved to the point that individual patient costing can be achieved for non-admitted or subacute admitted patients.

Acknowledgements

The development of this report was funded by the Independent Hospital Pricing Authority. Thanks go to the representatives of IHPA and the jurisdictional representatives of the Steering Committee who provided oversight of the study as well as valuable insight in the construct of this report.

The study team would also like to thank and recognise the staff at each site that participated in this study, and acknowledges the significant contribution each has made to achieve the goals of the project.

Data quality and assumptions

Our report has been provided for the sole purpose of documenting the costing study undertaken. The costing study and dataset has been constructed based on data provided to us by IHPA and the study participants up until November 29, 2013. Subsequent amendments were agreed with IHPA to enhance the dataset with the information in this report current as of March 28, 2014.

In performing our services we have compiled, analysed and merged data inputs from multiple third parties. While we are unable to warrant the accuracy of the data provided to EY, we note that based on our testing nothing came to our attention that indicated any major issues with accuracy and quality of the data and subsequent linking to a patient or encounter level. Some third parties were unable to provide all of the data requested that may have an impact on patient specific costs. Notwithstanding the limitations noted above the information contained in this report and associated dataset is fit for purpose.

Yours sincerely,

David Roberts
Partner, Ernst & Young

Contents

Part A: Data Coverage and key attributes to the dataset

This section provides the reader with the key outcomes of the study. It includes the results from a data coverage perspective including volumes and time based data by tier 2 clinic and by patient day within subacute admitted. This section also includes detail on the costing methodology and technical considerations regarding any quality processes employed and the linking and availability of extracted data.

1. Data Coverage

1.1 Database coverage – Non-admitted Services

The results of this study have provided IHPA and the jurisdictions with a robust cost dataset that provides direct and indirect cost allocation to a specificity that has not previously been possible. This dataset can be used to understand the true underlying cost of treatment provided to non-admitted patients. This section will provide information on the number of individual and group encounters captured by participant, tier 2 through both the use of manual data collection forms and in some instances system extracted data.

1.2 Number of records

Manual data collection for the non-admitted services commenced on 21 July 2013 and concluded on 31 October 2013. For the purposes of this report the final dataset is referred to as those records collected during the 12 week study period defined above and the analyses have been confined to this dataset.

In total the actual database was slightly less than the projected sample size, with 460,889 records constituting the non-admitted dataset. These records were constructed through data linkages involving in excess of 1,250 files and were net of records unusable due to, missing medical record numbers, no dates and or merging of records for the same service event. Table 1.1 provides the contribution by site to the 12 week study dataset.

Table 1-1: Number of non-admitted records by participating hospital in final dataset

Hospital	State	Records Captured
Bulli Hospital	NSW	294
Concord Repatriation Hospital	NSW	752
Dubbo Base Hospital	NSW	2,154
John Hunter Hospital	NSW	6,057
Lismore Hospital	NSW	811
Liverpool District Hospital	NSW	2,047
Penrith DHS - Nepean Hospital	NSW	15,812
Orange Base Hospital	NSW	2,408
Prince of Wales Hospital	NSW	20,551
Royal Hospital for Women	NSW	5,162
Royal North Shore Hospital	NSW	2,307
Royal Prince Alfred Hospital	NSW	2,925
Sydney Children's Hospital	NSW	445
St. George Hospital	NSW	12,613
St Joseph's	NSW	3,186
St. Vincent's Hospital - Darlinghurst/Sacred Heart	NSW	17,273
Sydney/ Sydney Eye Hospital	NSW	12,105
Children's Hospital at Westmead	NSW	11,705
Westmead Hospital	NSW	34,533
Wollongong Hospital	NSW	1,981
Bendigo Health Care Group (Hospital)	Vic	9,589
State-wide Service Qld (Genetics)	QLD	518
Royal Brisbane & Women's Hospital	QLD	89,070
Rockhampton Base Hospital	QLD	10,704
Flinders Medical Centre	SA	36,683
SA Genetics	SA	4,614
Hampstead Rehabilitation Centre	SA	1,471
Lyell McEwin Health Service	SA	18,225
Modbury Hospital	SA	7,154
Mount Gambier Hospital	SA	3,806
Port Lincoln Hospital	SA	5,292
Royal Adelaide Hospital	SA	30,327
Repatriation General Hospital	SA	15,035
Queen Elizabeth Hospital	SA	7,828
Women's and Children's Hospital SA	SA	18,558
Whyalla Hospital	SA	6,519
Inner City Community Mental Health	WA	8,307
Joondalup Community Mental Health	WA	9,609
Alice Springs Hospital	NT	14,995
Royal Darwin Hospital	NT	7,464
Total		460,889

1.2.1 Tier 2 Coverage – Individual Encounters

Records were linked to tier 2 outpatient classes based upon the clinic information reported on the manual data collection form or from the data contained in the data extracts provided to the study team. In some instances, direct linkages were unable to be made, and these records were not included in the resultant linked dataset. The non-admitted dataset contains information about individual as well as group encounters. Group encounters were identified on the data collection form and relate to an episode of care where one or more patients were being seen at the same time.

The number of individual records by Tier 2 clinic is listed in Table 1.2.

Table 1-2 Number of individual non-admitted encounters by tier 2 clinic represented in the final dataset

Tier 2 code	Tier 2 Clinic Description	Number of Individual Encounter Records
10.01	Hyperbaric medicine	738
10.02	Interventional imaging	86
10.03	Minor surgical	535
10.04	Dental	10,690
10.05	Angioplasty/angiography	127
10.06	Endoscopy – gastrointestinal	1,407
10.07	Endoscopy - urological/gynaecological	1,593
10.08	Endoscopy – orthopaedic	21
10.09	Endoscopy - respiratory/ENT	310
10.10	Renal dialysis - hospital delivered	1,178
10.11	Medical oncology (treatment)	5,318
10.12	Radiation oncology (treatment)	22,807
10.13	Minor medical procedures	586
10.14	Pain management interventions	12
10.15	Renal dialysis - haemodialysis - home delivered	128
10.17	Total parenteral nutrition - home delivered	90
20.01	Transplants	2,124
20.02	Anaesthetics	1,827
20.03	Pain management	2,075
20.04	Developmental disabilities	85
20.05	General medicine	9,459
20.06	General practice and primary care	171
20.07	General surgery	10,041
20.08	Genetics	7,166
20.09	Geriatric medicine	1,643
20.10	Haematology	6,111
20.11	Paediatric medicine	5,758
20.12	Paediatric surgery	648
20.13	Palliative care	1,211
20.14	Epilepsy	466
20.15	Neurology	2,898
20.16	Neurosurgery	2,754
20.17	Ophthalmology	17,146
20.18	Ear, nose and throat (ENT)	4,370
20.19	Respiratory	4,702
20.20	Respiratory - cystic fibrosis	560
20.21	Anti-coagulant screening and management	86
20.22	Cardiology	6,714
20.23	Cardiothoracic	87
20.24	Vascular surgery	2,321
20.25	Gastroenterology	4,693
20.26	Hepatobiliary	2,872
20.27	Craniofacial	1,275
20.28	Metabolic bone	151

Tier 2 code	Tier 2 Clinic Description	Number of Individual Encounter Records
20.29	Orthopaedics	15,866
20.30	Rheumatology	3,139
20.31	Spinal	251
20.32	Breast	2,792
20.33	Dermatology	4,692
20.34	Endocrinology	6,786
20.35	Nephrology	6,155
20.36	Urology	6,040
20.38	Gynaecology	6,311
20.39	Gynaecology oncology	1,085
20.40	Obstetrics	20,937
20.41	Immunology	2,187
20.42	Medical oncology (consultation)	12,668
20.43	Radiation oncology (consultation)	3,953
20.44	Infectious diseases	2,914
20.45	Psychiatry	1,618
20.46	Plastic and reconstructive surgery	6,352
20.47	Rehabilitation	1,953
20.48	Multidisciplinary burns clinic	289
20.49	Geriatric evaluation and management (GEM)	31
20.51	Sleep disorders	1,541
30.01	General imaging	207
30.05	Pathology	211
30.08	Clinical measurement	2,767
40.01	Aboriginal and Torres Strait Island people health clinic	41
40.02	Aged care assessment	831
40.03	Aids and Appliances	560
40.04	Clinical Pharmacy	4,378
40.05	Hydrotherapy	493
40.06	Occupational therapy	6,233
40.07	Pre-Admission and Pre-Anaesthesia	6,469
40.08	Primary health care	2,302
40.09	Physiotherapy	22,646
40.10	Sexual Health	1,308
40.11	Social Work	6,256
40.12	Rehabilitation	10,377
40.13	Wound management	1,043
40.14	Neuropsychology	61
40.15	Optometry	3,662
40.16	Orthoptics	1,272
40.17	Audiology	1,931
40.18	Speech pathology	3,487
40.19	Asthma	91
40.20	COPD	32
40.21	Cardiac rehabilitation	2,019
40.22	Stomal therapy	246
40.23	Nutrition/dietetics	6,743
40.24	Orthotics	1,611
40.25	Podiatry	4,078
40.26	Diabetes	1,172
40.27	Family planning	195
40.28	Midwifery and maternity	16,211
40.29	Psychology	1,901
40.30	Alcohol and other drugs	9,928
40.31	Burns	6,682
40.32	Continence	777
40.34	Specialist mental health	18,376
40.35	Palliative care	3,826

Tier 2 code	Tier 2 Clinic Description	Number of Individual Encounter Records
40.36	Geriatric evaluation and management (GEM)	296
40.37	Psychogeriatric	252
40.38	Infectious diseases	68
40.39	Neurology	1,064
40.40	Respiratory	2,013
40.41	Gastroenterology	101
40.42	Circulatory	478
40.44	Orthopaedics	4,710
40.46	Endocrinology	1,856
40.47	Nephrology	1,292
40.48	Haematology and immunology	934
40.49	Gynaecology	1,008
40.50	Urology	187
40.51	Breast	539
40.52	Oncology	12,552
40.53	General medicine	3,382
40.54	General surgery	2,226
40.55	Paediatrics	823
40.56	Falls prevention	548
40.58	Hospital avoidance programs	1,955
40.59	Post-acute care	67
50.01	Other non--admitted clinic not specified above	11,057
Total individual encounters		450,429

Based on this listing, the 12 week data collection did not collect sufficient information on the following tier 2 clinics:

- (10.16) Renal dialysis – peritoneal dialysis – home delivered

- (10.18) Enteral nutrition – home delivered

- (20.28) Metabolic Bone

- (20.37) Assisted reproductive technology

- (20.50) Psychogeriatric

- (30.02) MRI

- (30.03) CT

- (30.04) Nuclear Medicine

- (30.06) PET

- (30.07) Mammography screening

- (40.33) General counselling

- (40.43) Hepatobiliary

- (40.45) Dermatology

- (40.57) Cognition and memory.

It should be noted that some of the tier 2 clinics contained in this list relate to imaging examinations that are not separately counted but bundled with the primary outpatient attendance that generated the exam request.

Further, whilst data is not reported against some tier 2 clinics, primarily associated with allied health and/or clinical nurse intervention classes; data for the comparable medical consultation clinics was reported upon within the study. During the onsite visits, the study team were made aware that for some patient encounters, the patient may be seen by the medical officer and then followed up with further consultations/interactions with an allied health professional and/or a nurse within the same clinic and session. In these instances, the encounter is recorded once and attributed to the medical consultation class. This practice may account for null encounters being reported in co-aligned allied health and/or nursing classes.

The following case study is presented to explore whether this is a reasonable reflection of how activity is recorded or whether there are other variations in place in terms of the reporting of activity.

1.2.2 Case study: Medical consultation Dermatology (20.33) and allied health/clinical nurse consultation, Dermatology (40.45)

The study database contains 4,692 individual encounter records identified as occurring in tier 2 clinics 20.33 corresponding to medical consultation Dermatology clinic. No recorded activity occurred for tier 2 clinic 40.45 allied health and/or clinical nurse Dermatology clinic.

Analysis of the individual encounter dataset identifies of the 4,692 records:

- 2,591 encounters reported services provided only by medical staff

- 393 encounters reported services provided only by nursing staff

- 39 encounters reported services provided only by allied health staff

- 3 encounters reported services provided by both nursing and allied health staff

- 1,643 encounters reported services provided by both medical and nursing staff.

Based upon the above, there is the potential that 435 encounters (encounters not provided by medical staff) of the 4,692 records could be inappropriately aligned to tier 2 clinic 20.33 rather than tier 2 clinic 40.45. The clinic codes were identified and reported by the individual sites, and the study team did not make adjustments to these codes, maintaining the integrity of the dataset as reported by participating hospitals.

This case study suggests that there is some variation being applied within hospitals in terms of the application of tier 2 clinic codes applied to patient encounters, particularly if they appear in multiple domains such as medical consultation classes vs. allied health and/or clinical nurse specialist intervention classes.

This practice is likely to result in variations in cost profile within the medical consultation class within a hospital and across hospitals as encounters involving only medical consultations are also grouped with encounters involving consultations from multiple clinicians. The potential exists to reassign these cases to tier 2 clinic code 40.45.

1.2.3 Tier 2 Coverage – Group Encounters

The number of records relating to group encounters by tier 2 clinic is summarised in Table 1.3. The study team appended a suffix G to the clinic codes in order to be able to more readily identify group records. Group encounters were identified on the data collection form and relate to an episode of care where one or more patients were being seen at the same time.

Table 1-3 Number of group non-admitted encounters by tier 2 clinic represented in the final dataset

Tier 2 Clinic Code	Tier 2 Clinic Description	Number of Groups records
10.07G	Endoscopy - urological/gynaecological	3
10.10G	Renal dialysis - hospital delivered	1
10.12G	Radiation oncology (treatment)	2
20.03G	Pain management	12
20.05G	General medicine	16
20.08G	Genetics	46
20.09G	Geriatric medicine	56
20.10G	Haematology	1
20.11G	Paediatric medicine	6
20.13G	Palliative care	1
20.15G	Neurology	7
20.17G	Ophthalmology	32
20.18G	Ear, nose and throat (ENT)	4
20.22G	Cardiology	31
20.25G	Gastroenterology	1
20.26G	Hepatobiliary	1
20.28G	Metabolic bone	1
20.33G	Dermatology	3
20.34G	Endocrinology	20
20.35G	Nephrology	7
20.40G	Obstetrics	20
20.42G	Medical oncology (consultation)	9
20.43G	Radiation oncology (consultation)	2
20.44G	Infectious diseases	11
20.45G	Psychiatry	8
20.47G	Rehabilitation	14
20.51G	Sleep disorders	25
40.03G	Aids and Appliances	20
40.04G	Clinical Pharmacy	4
40.06G	Occupational therapy	70
40.07G	Pre-Admission and Pre-Anaesthesia	1
40.08G	Primary health care	33
40.09G	Physiotherapy	1,101
40.10G	Sexual Health	2
40.11G	Social Work	1,004
40.12G	Rehabilitation	686
40.13G	Wound management	1
40.17G	Audiology	205
40.18G	Speech pathology	42
40.21G	Cardiac rehabilitation	156
40.23G	Nutrition/dietetics	99
40.24G	Orthotics	44
40.25G	Podiatry	42
40.26G	Diabetes	5
40.28G	Midwifery and maternity	1,524
40.29G	Psychology	5
40.30G	Alcohol and other drugs	22
40.31G	Burns	269
40.34G	Specialist mental health	1,618
40.39G	Neurology	323

Tier 2 Clinic Code	Tier 2 Clinic Description	Number of Groups records
40.40G	Respiratory	243
40.41G	Gastroenterology	32
40.42G	Circulatory	75
40.44G	Orthopaedics	254
40.46G	Endocrinology	184
40.47G	Nephrology	54
40.48G	Haematology and immunology	13
40.49G	Gynaecology	56
40.50G	Urology	90
40.51G	Breast	5
40.52G	Oncology	103
40.53G	General medicine	850
40.54G	General surgery	677
50.01G	Other non---admitted clinic not specified above	208
Total Records representing Groups		**10,460**

1.2.4 Conclusion regarding the representativeness of the non-admitted dataset

Based on the number of records contained within the non-admitted dataset, most clinics were considered to have sufficient data to allow for the calculation of price weights and to support further detailed research. Even with a number of clinics not meeting the confidence interval on the mean cost (estimated at around 350 cases per clinic), the study has over 95 or 77.4% of clinics with volumes in excess of that number. Due to the potential of a number of these clinics having low national volumes or being new in Tier 2 and yet to be appropriately recorded against the national classification, many of these clinics may in fact be statistically within the study tolerance. Other clinics are procedural or imaging examinations which are not separately counted but bundled with the primary outpatient attendance that generated the exam request

1.3 Database coverage – Subacute admitted services

This section will provide information on the coverage achieved by the study in terms of volumes by care type and AN-SNAP class.

1.3.1 Number of records

Manual data collection for the subacute admitted services commenced on 21 July, 2013 and concluded on 31 October, 2013. As outlined in Part B of this report, a record within the subacute admitted database corresponded to an occupied bed day. In total the actual database contained 49,241 records which is slightly less than the predicted 51,837. These records were constructed through data linkages involving in excess of 1,250 files. Table 1.4 provides the contribution by participating hospital to the overall subacute admitted dataset.

Table 1-4 Number of subacute admitted records by participating hospital in final dataset

Hospital	State	Subacute admitted records
Braeside Hospital	NSW	1,854
David Berry Hospital	NSW	1,097
John Hunter Hospital	NSW	1,782
Liverpool District Hospital	NSW	634
Orange Base Hospital	NSW	535
Prince of Wales Hospital	NSW	533
Royal Prince Alfred Hospital	NSW	1,855
St. George Hospital	NSW	909
St Joseph's	NSW	2,741
St. Vincent's Hospital - Darlinghurst/Sacred Heart	NSW	3,360
Westmead Hospital	NSW	2,228
Alfred Hospital -Caulfield Campus	Vic.	8,960

Hospital	State	Subacute admitted records
Royal Brisbane & Women's Hospital	QLD	3,669
Rockhampton Base Hospital	QLD	1,087
Hampstead Rehabilitation Centre	S.A	4,046
Modbury Hospital	S.A	3,534
Mount Gambier Hospital	S.A	394
Repatriation General Hospital	S.A	7,092
Women's and Children's Hospital SA	S.A	137
Whyalla Hospital	S.A	113
Alice Springs Hospital	N.T.	1,134
Royal Darwin Hospital	N.T.	1,547
Total		49,241

The analysis below focuses on the 12 week dataset.

1.3.2   Care Type Coverage

Records were linked to the following care types:

- Rehabilitation

- Palliative care

- Geriatric evaluation and maintenance (GEM)

- Psychogeriatric, and

- Non-acute

These linkages were based upon the information contained on the manual data collection form and then cross referenced wherever possible to data contained on the patient administration extracts. The latter was provided by the respective hospitals or state health authorities. The number of records (bed-days) covered by the dataset by care type is listed in Table 1.5.

Data collected at this level enables further analyses to occur to determine if there are any substantial cost differences on per day basis within and between subacute admitted care types.

Table 1-5: Number of subacute admitted records by care type represented in the final dataset

Care Type	Total subacute admitted records (bed-days)
Rehabilitation	24,022
Palliative Care	6,528
Geriatric Evaluation and Management (GEM)	13,390
Psychogeriatric	857
Maintenance	1,584
Care type not specified	2,896
Total	49,241

Comparing this distribution to the predicted sample, the dataset potentially is over-representative for palliative care and Geriatric Evaluation and Management (GEM) care types. The most significantly under-represented care type relates to the psychogeriatric care type class.

The 49,241 bed day based records related to 3,952 individual patients treated across the participating hospitals. The number of unique patient records contained on the database by care type is summarised in Table 1.6. The total in the Table 1.6 exceeds the total number of cases as some patients were classified to more than one care type during the data collection period.

Table 1-6 Number of subacute admitted patients by care type represented in the final dataset

Care Type	Total subacute admitted patients
Rehabilitation	2,145
Palliative Care	728
Geriatric Evaluation and Management (GEM)	1,008
Psychogeriatric	86
Maintenance	143
Total	**4,110**

1.3.3 AN-SNAP Coverage

Many of the records captured within the study could not be categorised by AN-SNAP Class. This was a result of many participating sites not using AN-SNAP to class subacute activity and therefore not reporting this information and/or the supporting functional data routinely in their morbidity datasets. This divergence in reporting practices further highlighted the need for the study to ensure that care type was used in the development of the sampling strategy.

Of note, the dataset contains patient and bed day records that have been attributed an AN-SNAP class but have been identified as being in differing care type classes as per the care type nominated by the ward within the data collection form. The database supports further analyses to determine if cost differentials exist within an AN-SNAP class that is explained by the different care type categories. It also provides an evidence base to support further research as to whether the AN-SNAP class provides any greater explanatory power than care type categories when investigating the cost profiles of subacute admitted patients. The following tables identify the assignment of AN-SNAP classes per care type. An-SNAP classes that may represent activity from another care type have been highlighted in grey.

1.3.3.1 AN-SNAP class assignment for records identified as Rehabilitation Care Type

A review of the study dataset enables identification of the distribution of individual patient numbers (as distinct from bed day records) grouped to AN-SNAP class by class type. Only 1,013 individual patient records designated to the rehabilitation care type category were grouped and linked to an AN-SNAP class. The distribution by AN-SNAP class by these patients is listed in Table 1.7 below.

Table 1-7 SNAP Classes covered by database – Patients categorised to the Rehabilitation Care Type

SNAP Classes identified within records as Rehabilitation	AN-SNAP description	Total Number of Unique Patients	Total Bed-days
204	Stroke, FIM motor 63-91, FIM cognition 20-35	2	12
208	Stroke, FIM motor 14-46, age>=75	2	40
221	Spinal Cord Dysfunction, FIM motor 47-80	1	1
227	Orthopaedic conditions, fractures, FIM motor 58-91	1	5
231	Orthopaedic conditions, replacement, FIM motor 72-91	5	35
232	Orthopaedic conditions, replacement, FIM motor 49-71	1	10
251	Brain, Major Multiple Trauma & Pulmonary	2	20
252	Burns, Cardiac, Pain, Spine, & Neurological	4	11
253	All other impairments	14	62
998	Un assigned	27	404
999	Un assigned	7	83
2103	Palliative Care - Stable phase, RUG-ADL 5-17	2	3
2109	Palliative Care - Deteriorating phase, RUG-ADL 15-18, age >=53	1	1
2111	Palliative Care - Terminal phase, RUG-ADL 17-18	1	1
2204	Stroke ,Mot 63-91,Cog 20-35	1	29
2206	Stroke, motor 47-62, cog 16-35	3	62
2209	Stroke, Mot 14-46, Age<=74	2	68
2222	Spnl Cord Dysfnc,Mot 14-46, Age>=33	1	40
2228	Orthpaed Conds, Fractures, Mot 48-57	1	2
2229	Orthpaed Conds, Fractures, Mot 14-47, Cog19-35	1	9

SNAP Classes identified within records as Rehabilitation	AN-SNAP description	Total Number of Unique Patients	Total Bed-days
2244	Oth Impairs,Mot 25-52	1	9
2245	Oth Impairs,Mot 14-24	1	12
3109	Palliative Care - Deteriorating Phase, RUG-ADL 15-18, age >=53	2	2
3111	Palliative Care – Terminal phase, RUG-ADL 17-18	2	3
3201	Rehabilitation, admit for assessment only	1	1
3202	Brain, Neurological, Spinal & Major Multiple Trauma, FIM motor 13	22	402
3203	All other impairments, FIM motor 13	14	247
3204	Stroke, FIM motor 63-91, FIM cognition 20-35	25	257
3205	Stroke, FIM motor 63-91, FIM cognition 5-19	9	106
3206	Stroke, FIM motor 47-62, FIM cognition 16-35	29	404
3207	Stroke, FIM motor 47-62, FIM cognition 5-15	2	14
3208	Stroke, FIM motor 14-46, age>=75	38	481
3209	Stroke, FIM motor 14-46, age<=74	41	835
3210	Brain Dysfunction, FIM motor 56-91, FIM cognition 32-35	6	31
3211	Brain Dysfunction, FIM motor 56-91, FIM cognition 24-31	19	234
3212	Brain Dysfunction, FIM motor 56-91, FIM cognition 20-23	6	138
3213	Brain Dysfunction, FIM motor 56-91, FIM cognition 5-19	13	263
3214	Brain Dysfunction, FIM motor 24-55	20	351
3215	Brain Dysfunction, FIM motor 14-23	9	187
3216	Neurological, FIM motor 63-91	14	177
3217	Neurological, FIM motor 49-62	10	131
3218	Neurological, FIM motor 18-48	21	349
3219	Neurological, FIM motor 14-17	2	22
3220	Spinal Cord Dysfunction, FIM motor 81-91	2	8
3221	Spinal Cord Dysfunction, FIM motor 47-80	8	136
3222	Spinal Cord Dysfunction, FIM motor 14-46, age>=33	22	576
3223	Spinal Cord Dysfunction, FIM motor 14-46, age<=32	5	101
3224	Amputation of limb, FIM motor 72-91	4	85
3225	Amputation of limb, FIM motor 14-71	25	456
3226	Pain Syndromes	5	60
3227	Orthopaedic conditions, fractures, FIM motor 58-91	43	477
3228	Orthopaedic conditions, fractures, FIM motor 48-57	45	502
3229	Orthopaedic conditions, fractures, FIM motor 14-47, FIM cognition 19-35	49	747
3230	Orthopaedic conditions, fractures, FIM motor 14-47, FIM cognition 5-18	10	133
3231	Orthopaedic conditions, replacement, FIM motor 72-91	7	47
3232	Orthopaedic conditions, replacement, FIM motor 49-71	28	323
3233	Orthopaedic conditions, replacement, FIM motor 14-48	7	99
3234	Orthopaedic conditions, all other, FIM motor 68-91	2	28
3235	Orthopaedic conditions, all other, FIM motor 53-67	8	79
3236	Orthopaedic conditions, all other, FIM motor 14-52	7	113
3237	Cardiac	17	229
3238	Major Multiple Trauma, FIM total 101-126	5	30
3239	Major Multiple Trauma, FIM total 74-100 or Burns	10	158
3240	Major Multiple Trauma, FIM total 44-73	5	97
3241	Major Multiple Trauma, FIM total 19-43	4	89
3242	All other impairments, FIM motor 67-91	56	503
3243	All other impairments, FIM motor 53-66	67	803
3244	All other impairments, FIM motor 25-52	70	824
3245	All other impairments, FIM motor 14-24	16	156
3251	Brain, Major Multiple Trauma & Pulmonary	5	33
3252	Burns, Cardiac, Pain, Spine, & Neurological	14	76
3253	All other impairments	38	215
3406	FIM cognition 16-35, FIM motor 51-77	1	1
3503	Respite, RUG-ADL 4	1	1

SNAP Classes identified within records as Rehabilitation	AN-SNAP description	Total Number of Unique Patients	Total Bed-days
3504	Nursing Home Type, RUG-ADL 11-18	10	60
3505	Nursing Home Type, RUG-ADL 4-10	8	33
3506	Convalescent care	6	24
3507	Other maintenance, RUG-ADL 14-18	3	30
3508	Other maintenance, RUG-ADL 4-13	12	98
3509	Long term care, RUG-ADL 17-18	1	33
3999	All other subacute care un groupable	1	2
No AN-SNAP Class		1,132	10,983
AN-SNAP Reported		1,013	13,019
Total		2,145	24,002

*Records in grey represent records with provided AN-SNAP classifications not representing this subacute care type

The database will support further analyses to determine whether a cost differential exists between the AN-SNAP classes for this subset of patients on a per diem and overall episode basis.

1.3.3.2 AN-SNAP class assignment for records identified as Palliative Care Type

The same set of analysis was undertaken for those records identified as being assigned to the palliative care type. AN-SNAP classes were provided for a total of 462 individual patients contained on the database as listed in Table 1.8.

Table 1.8: Table 1-8 SNAP Classes covered by database – Patients categorised to the Palliative Care Type

SNAP Classes identified within records as Palliative Care	AN-SNAP description	Total Number of Unique Patients	Total Bed-days
103	Palliative Care - Stable phase, RUG-ADL 5-17	1	3
104	Stable phase, RUG-ADL 18	3	24
110	Terminal phase, RUG-ADL 4-16	1	2
998	Un assigned	7	39
2102	Stable phase, RUG-ADL 4	17	b235
2103	Stable phase, RUG-ADL 5-17	31	359
2104	Stable phase, RUG-ADL 18	9	48
2105	Unstable phase, RUG-ADL 4-17	26	91
2106	Unstable phase, RUG-ADL 18	6	10
2107	Deteriorating phase, RUG-ADL 4-14	8	21
2109	Deteriorating phase, RUG-ADL 15-18, age >=53	25	81
2110	Terminal phase, RUG-ADL 4-16	2	2
2111	Terminal phase, RUG-ADL 17-18	20	36
3101	Palliative care, admit for assessment only	2	3
3102	Stable phase, RUG-ADL 4	9	52
3103	Stable phase, RUG-ADL 5-17	40	361
3104	Stable phase, RUG-ADL 18	9	38
3105	Unstable phase, RUG-ADL 4-17	67	319
3106	Unstable phase, RUG-ADL 18	20	76
3107	Deteriorating phase, RUG-ADL 4-14	24	186
3108	Deteriorating phase, RUG-ADL 15-18, age <=52	5	49
3109	Deteriorating phase, RUG-ADL 15-18, age >=53	53	366
3110	Terminal phase, RUG-ADL 4-16	2	4
3111	Terminal phase, RUG-ADL 17-18	44	107
3204	Stroke, FIM motor 63-91, FIM cognition 20-35	1	1
3207	Rehab-Stroke, FIM motor 47-62, FIM cognition 5-15	1	1
3208i	Stroke, FIM motor 14-46, age>=75	1	1
3209	Rehab-Stroke, FIM motor 14-46, age<=74	3	3
3213	Rehab-Brain Dysfunction, FIM motor 56-91, FIM cognition 5-19	1	1
3218	Rehab- Neurological, FIM motor 18-48	1	1
3222	Rehab-Spinal Cord Dysfunction, FIM motor 14-46, age>=33	2	2
3225	Rehab -Amputation of limb, FIM motor 14-71	1	1

SNAP Classes identified within records as Palliative Care	AN-SNAP description	Total Number of Unique Patients	Total Bed-days
3227	Rehab- Orthopaedic conditions, fractures, FIM motor 58-91	2	2
3229	Rehab- Orthopaedic conditions, fractures, FIM motor 14-47, FIM cognition 19-35	2	2
3237	Cardiac	1	1
3238	Rehab- Major Multiple Trauma, FIM total 101-126	1	1
3239	Rehab -Major Multiple Trauma, FIM total 74-100 or Burns	1	1
3242	Rehab-All other impairments, FIM motor 67-91	1	1
3243	All other impairments, FIM motor 53-66	1	1
3244	All other impairments, FIM motor 25-52	2	2
3403	GEM -FIM cognition <=15, FIM motor 44-91, age>=84	1	1
3405	GEM -FIM cognition 16-35, FIM motor 13-50	2	2
3406	GEM -FIM cognition 16-35, FIM motor 51-77	4	4
3504	GEM -Nursing Home Type, RUG-ADL 11-18	2	11
No AN-SNAP class assigned or reported		266	3,976
AN-SNAP reported		462	2,552
Total		728	6,528

*Records in grey represent records with provided AN-SNAP classifications not representing this subacute care type

A total of 147 patients within the palliative care type class reported multiple AN-SNAP classes during the study period.

1.3.3.3   AN-SNAP class assignment for records identified as Geriatric Evaluation and Management (GEM) Care Type

AN-SNAP classes were provided for a total of 319 individual patients designated as GEM care type and contained on the database as listed in Table 1.9.

Table 1-9 SNAP Classes covered by database – Patients categorised to the GEM Care Type

SNAP Classes identified within records as GEM Care Type	AN-SNAP description	Total Number of Unique Patients	Total Bed-days
203	Rehabilitation – All other impairments, FIM 13	2	25
205	Rehabilitation - Stroke and Burns, Mot 63-91,Cog 5-19	1	10
214	Rehabilitation - Neurological, motor 41-73	3	35
228	Rehabilitation - Major Multiple Trauma	2	59
229	Rehab- Orthopaedic conditions, fractures, FIM motor 14-47, FIM cognition 19-35	1	22
231	Rehabilitation - Oth Impairs, Mot 25-52	1	23
232	Orthopaedic conditions, replacement, FIM motor 49-71	2	35
299	All other subacute care ungroupable	14	153
401	Overnight – cognition<=15, motor 13-43	1	18
404	Overnight – cognition 16-35, motor13-50	1	29
499	All other subacute care ungroupable	3	31
599	Un assigned	2	10
998	Un assigned	6	41
999	Un assigned	3	12
2102	Palliative Care - Stable phase, RUG-ADL 4?	1	1
2105	Palliative Care - Unstable phase, RUG-ADL 4-17	1	1
3103	Palliative Care - Stable phase, RUG-ADL 5-17	3	3
3107	Palliative Care- Deteriorating phase, RUG-ADL 4-14	1	1
3109	Palliative Care- Deteriorating phase, RUG-ADL 15-18, age >=53	1	1
3227	Rehab- Orthopaedic conditions, fractures, FIM motor 58-91	1	1
3228	Rehab- Orthopaedic conditions, fractures, FIM motor 48-57	1	1
3243	Rehab- All other impairments, FIM motor 53-66	2	15
3244	Rehab- All other impairments, FIM motor 25-52	10	22

SNAP Classes identified within records as GEM Care Type	AN-SNAP description	Total Number of Unique Patients	Total Bed-days
3245	Rehab- All other impairments, FIM motor 14-24	1	13
3401	GEM admit for assessment only	6	14
3402	FIM cognition <=15, FIM motor 13-43	41	789
3403	FIM cognition <=15, FIM motor 44-91, age>=84	13	207
3404	FIM cognition <=15, FIM motor 44-91, age<=83	6	110
3405	FIM cognition 16-35, FIM motor 13-50	111	1,864
3406	FIM cognition 16-35, FIM motor 51-77	70	1,021
3407	FIM cognition 16-35, FIM motor 78-91	5	52
3499	All other subacute care ungroupable	1	13
3504	Maintenance -Nursing Home Type, RUG-ADL 11-18	1	2
3505	Maintenance- Nursing Home Type, RUG-ADL 4-10	1	5
No AN-SNAP class assigned or reported		689	8,751
AN-SNAP reported		319	4,639
Total		1,008	13,390

*Records in grey represent records with provided AN-SNAP classifications not representing this subacute care type

A total of 91 patients within the GEM care type class reported multiple AN-SNAP classes during the study period.

1.3.3.4 AN-SNAP class assignment for records identified as Psychogeriatric Care Type

AN-SNAP classes were provided for a total of 34 individual patients designated as psychogeriatric care type and contained on the database as listed in Table 1.10.

Table 1-10 SNAP Classes covered by database – Patients categorised to the Psychogeriatric Care Type

SNAP Classes identified within records as Psychogeriatric Care Type	AN-SNAP description	Total Number of Unique Patients	Total Bed-days
214	Rehabilitation- neurological motor 41-73	1	1
3302	HoNOS 65+ Overactive behaviour 3,4	10	181
3304	HoNOS 65+ Overactive behaviour 1,2 HoNOS 65+ ADL 0-3	6	213
3305	HoNOS 65+ Overactive behaviour 0 HoNOS 65+ total>=18	1	10
3306	HoNOS 65+ Overactive behaviour 0 HoNOS 65+ total<=17	6	114
3307	Long term care	4	174
3403	GEM- FIM cognition <=15, FIM motor 44-91, age>=84	1	1
3405	GEM -FIM cognition 16-35, FIM motor 13-50	2	2
3406	GEM -FIM cognition 16-35, FIM motor 51-77	3	3
No AN-SNAP class assigned or reported		52	158
AN-SNAP reported		34	699
Total		86	857

*Records in grey represent records with provided AN-SNAP classifications not representing this subacute care type

A total of 6 patients within the psychogeriatric care type class reported multiple AN-SNAP classes during the study period.

1.3.3.5 AN-SNAP class assignment for records identified as Maintenance Care Type

AN-SNAP classes were provided for a total of 38 individual patients designated as maintenance care type and contained on the database as listed in Table 1.11.

Table 1-11 SNAP Classes covered by database – Patients categorised to the Maintenance Care Type

SNAP Classes identified within records as Maintenance Care Type	AN-SNAP description	Total Number of Unique Patients	Total Bed-days
204	Rehab -Stroke ,Mot 63-91,Cog 20-35	1	1
229	Rehabilitation - Orthopaedic conditions, fractures, FIM motor 14-47, FIM cognition 19-35	1	18
231	Rehabilitation - Orthopaedic conditions, replacement, FIM motor 72-91	1	1
998	Un assigned	12	65
3202	Rehabilitation - Brain, Neurological, Spinal & Major Multiple Trauma, FIM motor 13	2	4
3213	Rehabilitation - Brain Dysfunction, FIM motor 56-91, FIM cognition 5-19	1	1
3214	Rehabilitation - Brain Dysfunction, FIM motor 24-55	1	2
3225	Amputation of limb, FIM motor 14-71	1	1
3228	Orthopaedic conditions, fractures, FIM motor 48-57	1	1
3229	Orthopaedic conditions, fractures, FIM motor 14-47, FIM cognition 19-35	3	10
3239	Major Multiple Trauma, FIM total 74-100 or Burns	1	1
3302	HoNOS 65+ Overactive behaviour 3,4	1	1
3304	HoNOS 65+ Overactive behaviour 1,2 HoNOS 65+ ADL 0-3	1	1
3306	HoNOS 65+ Overactive behaviour 0 HoNOS 65+ total<=17	1	1
3307	Long term care	1	1
3504	Nursing Home Type, RUG-ADL 11-18	4	33
3505	Nursing Home Type, RUG-ADL 4-10	1	3
3508	Other maintenance, RUG-ADL 4-13	4	14
No AN-SNAP class assigned or reported		105	1,425
AN-SNAP reported		38	159
Total		**143**	**1,584**

*Records in grey represent records with provided AN-SNAP classifications not representing this subacute care type

A total of 10 patients within the maintenance care type class reported multiple AN-SNAP classes during the study period.

1.3.3.6 AN-SNAP class assignment for records with no designated Care Type

AN-SNAP classes were provided for a total of 446 individual patients where no care type class was specified. The distribution is depicted in Table 1.12.

Table 1.12 : Table 1-12 SNAP Classes covered by database – No Care Type Specified

SNAP Classes where no care type identified	AN-SNAP description	Total Number of Unique Patients	Total Bed-days
104	Stable phase, RUG-ADL 18	1	3
110	Terminal phase, RUG-ADL 4-16	1	2
204	Rehab -Stroke ,Mot 63-91,Cog 20-35	1	4
1208	Stroke, FIM motor 14-46, age>=75	1	1
231	Orthopaedic conditions, replacement, FIM motor 72-91	3	3
232	Orthopaedic conditions, replacement, FIM motor 49-71	1	2
251	Brain, Major Multiple Trauma & Pulmonary	1	1
253	All other impairments	3	3
299	All other subacute care ungroupable	2	5
404	GEM Overnight – cognition 16-35, motor 13-50	1	1
499	All other subacute care ungroupable	1	3
998	All other subacute care ungroupable	20	63
2102	Palliative Care - Stable phase, RUG-ADL 4?	2	2
2103	Palliative Care - Stable phase, RUG-ADL 5-17	3	3
2105	Palliative Care - Unstable phase, RUG-ADL 4-17	6	6
2106	Palliative Care- Unstable phase, RUG-ADL 18	1	1
2107	Palliative Care- Deteriorating phase, RUG-ADL 4-14	1	1
2109	Palliative Care- Deteriorating phase, RUG-ADL 15-18, age >=53	2	2

SNAP Classes where no care type identified	AN-SNAP description	Total Number of Unique Patients	Total Bed-days
2111	Palliative Care - Terminal phase, RUG-ADL 17-18	2	2
2204	Rehab -Stroke ,Mot 63-91,Cog 20-35	1	2
2206	Rehab - Stroke, motor 47-62, cog 16-35	2	2
2222	Rehab- Spnl Cord Dysfnc,Mot 14-46, Age>=33	1	12
3102	Palliative Care- Stable phase, RUG-ADL 4	3	4
3103	Palliative Care - Stable phase, RUG-ADL 5-17	4	6
3105	Palliative Care -Unstable phase, RUG-ADL 4-17	2	2
3107	Palliative Care - Deteriorating phase, RUG-ADL 4-14	4	4
3108	Palliative Care - Deteriorating phase, RUG-ADL 15-18, age <=52	1	1
3109	Palliative Care - Deteriorating phase, RUG-ADL 15-18, age >=53	5	5
3110	Palliative Care -Terminal phase, RUG-ADL 4-16	1	1
3202	Rehabilitation - Brain, Neurological, Spinal & Major Multiple Trauma, FIM motor 13	9	57
3203	Rehabilitation - All other impairments, FIM motor 13	5	7
3204	Rehabilitation - Stroke, FIM motor 63-91, FIM cognition 20-35	5	5
3205	Rehabilitation – Stroke, FIM motor 63-91, FIM cognition 5-19	1	1
3206	Rehabilitation -Stroke, FIM motor 47-62, FIM cognition 16-35	12	22
3207	Rehabilitation -Stroke, FIM motor 47-62, FIM cognition 5-15	1	1
3208	Rehabilitation - Stroke, FIM motor 14-46, age >=75	7	12
3209	Rehabilitation - Stroke, FIM motor 14-46, age <=74	11	16
3211	Rehabilitation - Brain Dysfunction, FIM motor 56-91, FIM cognition 24-31	7	14
3212	Rehabilitation - Brain Dysfunction, FIM motor 56-91, FIM cognition 20-23	3	10
3213	Rehabilitation - Brain Dysfunction, FIM motor 56-91, FIM cognition 5-19	5	7
3214	Rehabilitation - Brain Dysfunction, FIM motor 24-55	3	6
3215	Rehabilitation - Brain Dysfunction, FIM motor 14-23	3	7
3216	Rehabilitation - Neurological, FIM motor 63-91	3	3
3217	Rehabilitation - Neurological, FIM motor 49-62	3	5
3218	Rehabilitation - Neurological, FIM motor 18-48	5	6
3221	Rehabilitation - Spinal Cord Dysfunction, FIM motor 47-80	4	25
3222	Rehabilitation - Spinal Cord Dysfunction, FIM motor 14-46, age>=33	9	59
3223	Rehabilitation - Spinal Cord Dysfunction, FIM motor 14-46, age<=32	1	3
3224	Amputation of limb, FIM motor 72-91	1	1
3225	Rehabilitation - Amputation of limb, FIM motor 14-71	8	10
3226	Rehabilitation - Pain Syndromes	1	1
3227	Rehabilitation - Orthopaedic conditions, fractures, FIM motor 58-91	12	16
3228	Rehabilitation - Orthopaedic conditions, fractures, FIM motor 48-57	11	13
3229	Rehabilitation - Orthopaedic conditions, fractures, FIM motor 14-47, FIM cognition 19-35	15	18
3230	Rehabilitation - Orthopaedic conditions, fractures, FIM motor 14-47, FIM cognition 5-18	2	2
3231	Rehabilitation - Orthopaedic conditions, replacement, FIM motor 72-91	4	4
3232	Rehabilitation - Orthopaedic conditions, replacement, FIM motor 49-71	6	6
3234	Rehabilitation - Orthopaedic conditions, all other, FIM motor 68-91	1	1
3235	Rehabilitation - Orthopaedic conditions, all other, FIM motor 53-67	2	2
3236	Rehabilitation - Orthopaedic conditions, all other, FIM motor 14-52	2	4
3237	Rehabilitation – Cardiac	6	11
3238	Rehabilitation - Major Multiple Trauma, FIM total 101-126	1	1
3239	Rehabilitation - Major Multiple Trauma, FIM total 74-100 or Burns	4	6
3241	Major Multiple Trauma, FIM total 19-43	1	1
3242	Rehabilitation - All other impairments, FIM motor 67-91	9	11
3243	Rehabilitation - All other impairments, FIM motor 53-66	16	20
3244	Rehabilitation - All other impairments, FIM motor 25-52	16	22
3245	Rehabilitation - All other impairments, FIM motor 14-24	4	5
3251	Brain, Major Multiple Trauma & Pulmonary	1	1
3252	Burns, Cardiac, Pain, Spine, & Neurological	2	3
3253	All other impairments	7	7
3302	Psychogeriatric – HoNOS 65+ Overactive behaviour 3,4	1	1
3304	Psychogeriatric – HoNOS 65+ Overactive behaviour 1,2 ADL 0-3	1	1

SNAP Classes where no care type identified	AN-SNAP description	Total Number of Unique Patients	Total Bed-days
3401	GEM- GEM admit for assessment only	2	4
3402	GEM- FIM cognition <=15, FIM motor 13-43	22	40
3403	GEM- FIM cognition <=15, FIM motor 44-91, age>=84	4	6
3404	GEM- FIM cognition <=15, FIM motor 44-91, age<=83	1	1
3405	GEM- FIM cognition 16-35, FIM motor 13-50	61	102
3406	GEM- FIM cognition 16-35, FIM motor 51-77	40	61
3407	GEM- FIM cognition 16-35, FIM motor 78-91	3	3
3503	Maintenance – respite, RUG-ADL 4	1	2
3504	Maintenance – nursing home type, RUG –ADL 11-18	1	1
3505	Maintenance – nursing home type, RUG-ADL 4-10	1	1
3508	Maintenance – other maintenance, RUG-ADL 4-13	2	3
Total		446	805

A total of 2 patients within this cohort reported multiple AN-SNAP classes during the study period.

1.3.4   Distribution of cases between care type and AN-SNAP class

The data contained in Tables 1.7 to 1.12 presented in the preceding sections demonstrate that in a number of instances, patients with different care types were allocated to the same AN-SNAP class. This is counterintuitive in that the AN-SNAP classification system is based on a hierarchy which compartmentalises care types. This hierarchy inherently suggests mutually exclusive criteria apply in determining if an episode of care falls within a particular AN-SNAP class. For example, if a patient is deemed to be a palliative care patient, one would expect that the patient would be allocated to one of the palliative care AN-SNAP classes. The dataset shows that this practice cannot be assumed with some palliative care patient records allocated to AN-SNAP classes aligned to rehabilitation, GEM, psychogeriatric or maintenance services. This is also true for the other classes.

This variability in classification or counting practice may account for variations within classes which is discussed further in Section 2.2.4.

1.3.5   Conclusion regarding the representativeness of the subacute admitted dataset

Based on the number of records representing occupied bed days contained within the subacute admitted dataset, most care types are considered to have sufficient data to represent a statistically valid sample and allow for the calculation of price weights and to support further detailed research. The care type at risk of being slightly under represented is the psychogeriatric care type class. We are less confident on the robustness of the data represented by AN-SNAP. This diminished confidence is due to the issues identified above and the lack of complete episodes and or records with an AN-SNAP classification. In light of this it is the recommendation of the EY team that the development of price weights by AN-SNAP not be made using the AN-SNAP designated episodes within the dataset. It is the belief of the team that the episode sample size is not sufficient. We would recommend that the cost per bed day per AN-SNAP classification be calculated, with this cost per day being multiplied by the average length of stay for that AN-SNAP class to derive an interim cost per AN-SNAP episode until a greater sample size can be captured.

2.   Time based data

One of the major recognised cost drivers in healthcare services relates to the amount of time clinicians spend with patients in the planning, provision of, and follow up of treatment. As outlined in preceding chapters, this study sought to collect this information for the three major clinician groups, namely:

- Doctors
- Nurses including Midwives and
- Allied health professionals.

Each of these clinician groups were further subdivided into:

- Doctors

  o Junior doctor

  o Senior doctor

- Nurses & Midwives

  o Advanced nurse

  o Registered nurse or midwife

  o Enrolled nurse

  o Other nurse

- Allied Health Professionals

  o Audiology

  o Dietetics & Nutrition

  o Occupational Therapy

  o Orthotics

  o Peer Support Worker

  o Physiotherapy

  o Podiatry

  o Psychology

  o Social Work

  o Speech Therapy

  o Pharmacy

  o Advanced Allied Health Practitioner

  o Cardiac Technician

  o Allied Health Aide/ Technician

  o Aboriginal / Indigenous Health worker

  o Student

  o Other

In addition to the above, each hospital was able to add to the list of allied health professionals reflecting the particular clinics participating in the study.

- Time based data was reported in two distinct categories, namely:

- Direct time – representing the time spent by the clinician providing care directly to the patient.

- Indirect time – representing time spent by the clinician undertaking activities on behalf of a patient, where the patient is not present e.g. Case conference, history, referrals, reports, care plans, organisation of patient transport, organisation of respite care with another provider, organisation of equipment, etc.

Detailed analysis of the dataset was deemed to be outside of scope. However, some analyses of the time based dataset was undertaken to support data quality and validation processes. A summary of the findings related to the variance in time reported per episode by clinician type is presented in this chapter.

2.1 Distribution of time: non-admitted services

Upon receipt of the time based data, the information was uploaded into a study test dataset. Extreme outliers and potential errors in scanning (such as negative time) were identified. These isolated records were placed into an error dataset and addressed through a range of quality assurance processes outlined in Part B. The resultant dataset was then passed through to the next stage which focussed on the linkages to ancillary datasets.

The data reported upon in this section relates to this trimmed dataset covering the 12 week data collection period.

The section provides a summary of basic statistical data generated through the analysis of the time based data collected throughout the study. It identifies the average total time (direct and indirect) in minutes for medical, nursing and allied health professional staff respectively involved in treating patients. The average times are represented in two ways. The first depicts the average time against all encounters and the second represents the averaged time by clinician for those encounters that clinician time was documented. Detail of these times by tier 2 non-admitted clinics can be found in Appendices L through Q. The standard deviation and the minimum and maximum values are also reported.

The tier 2 clinics represented in these tables reflect the clinic reported to the study team on the data collection form, the mapping hospitals use to map their clinics to tier 2 clinics and the clinic identified in the local hospital extracts (where the information was provided electronically). No attempt has been made to alter these codes, as maintaining the integrity of the dataset has enabled early identification of potential reasons for variances occurring between and within classes.

2.1.1 Medical Time

Table 2-1a Analysis of total recorded time – medical staff

Description	Total Medical Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
Total Medical Time – Individual Encounters	5,170,760	11.48	0	972	28.83	450,406

Table 2.1a summarises the Medical Time captured within the study, trimming out a further 23 records from one site that reported time exceeding reasonable norms for medical input. The average minutes for medical input per encounter is reported to be 11.48 minutes. As is expected, the higher proportion of medical time (90.57% of all recorded time) is reported in the tier 2 clinics coded in the 10 and 20 series corresponding to medical consultations. The data also shows that 8.41% of the medical time reported through this study is attributed to tier 2 clinics within the 40 series corresponding to allied health and or clinical nurse clinics.

Table 2-2b Analysis of total recorded time – medical staff encounters

Description	Total Medical Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
Total Medical Time – Medical Encounters	5,170,760	27.43	1	972	25.71	188,456

Table 2.1b summarises the Medical Time captured within the study when only utilising those encounters that reported medical time. The average minutes for medical input per encounter is reported to be 27.43 minutes.

2.1.2   Nursing Time

Table 2-3a Analysis of total recorded time – nursing staff

Description	Total Nursing Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
Total Nursing Time – Individual Encounters	6,182,199	13.73	0	980	33.56	450,375

Table 2.2a summarises the Nursing Time captured within the study, trimming out a further 54 records from one site that reported time exceeding reasonable norms for nursing input. The average minutes for nursing input per encounter is reported to be 13.73 minutes. Detail at the tier 2 level indicates that the majority of nursing time (64.41%) reported through the study was incurred working in tier 2 clinics listed in the 10 and 20 series. A further 35.09% of the time recorded by nurses in the non-admitted data collection related to work undertaken in tier 2 clinics listed in the 40 series.

Table 2-4b Analysis of total recorded time – nursing staff encounters

Description	Total Nursing Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
Total Nursing Time – Individual Encounters	6,182,199	29.49	1	980	44.22	209,618

Table 2.2b summarises the Nursing Time captured within the study when only utilising those encounters that reported nursing time. The average minutes for nursing input per encounter is reported to be 29.49 minutes.

2.1.3   Allied Health Professional Time

Table 2-5a Analysis of total recorded time – allied health professional staff

Description	Total Allied Health Professional Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
Total Allied Health Professional Time – Individual Encounters	9,022,357	20.03	0	1780	40.18	450,407

Table 2.3 summarises the Allied Health time captured within the study, trimming out a further 22 records from one site that reported time exceeding reasonable norms for allied health input. The average minutes per encounter for allied health professional input is reported to be 20.03 minutes. Detail at the tier 2 level indicates that the majority of time, 64.81% of the time recorded by allied health professionals in the non-admitted data collection related to work undertaken in tier 2 clinics listed in the 40 series. Approximately 27.59% was incurred working in tier 2 clinics listed in the 10 and 20 series. All records coded to tier 2 clinic 50.01 "Other non-admitted clinic not specified above" originate from time base data completed by allied health professionals.

Table 2-6b Analysis of total recorded time – allied health professional staff encounters

Description	Total Allied Health Professional Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
Total Allied Health Professional Time – Individual Encounters	9,022,357	47.52	1	1780	50.15	189,831

Table 2.3b summarises the Allied Health Time captured within the study when only utilising those encounters that reported allied health time. The average minutes for allied health input for those encounter is reported to be 47.52 minutes.

2.1.4   Potential explanations for within class variation

Preliminary review of the data has highlighted potential explanations for within class variations in the non-admitted dataset. As referenced earlier, the tier 2 clinic reflects the respective participating hospitals practice in terms of counting and mapping local clinics to the tier 2 clinic list. Modifications to this were not made by the study team, maintaining the integrity of the dataset and assisting in understanding why variations may exist within classes.

The data suggests that there is variation in the way in which hospitals map to tier 2 clinics and a few examples are provided below.

A number of tier 2 clinics were chosen at random and the distribution of time reported by the staff graphed. The graphs provide an indication as to how close the reported activity is to the sample mean and may also highlight variance in reporting, such as cases with no clinician time in clinics that are specific to that clinical consultations. It should however be noted that this may not in itself warrant further investigation and or the potential reassignment of such records as clinics are assigned to classes based on the "usual provider".

The distribution of total time recorded per staff can be seen on the following pages.

Figure 2-1 Distribution of total recorded time – medical staff tier 2 clinics 20.33 Medical Consultation Dermatology
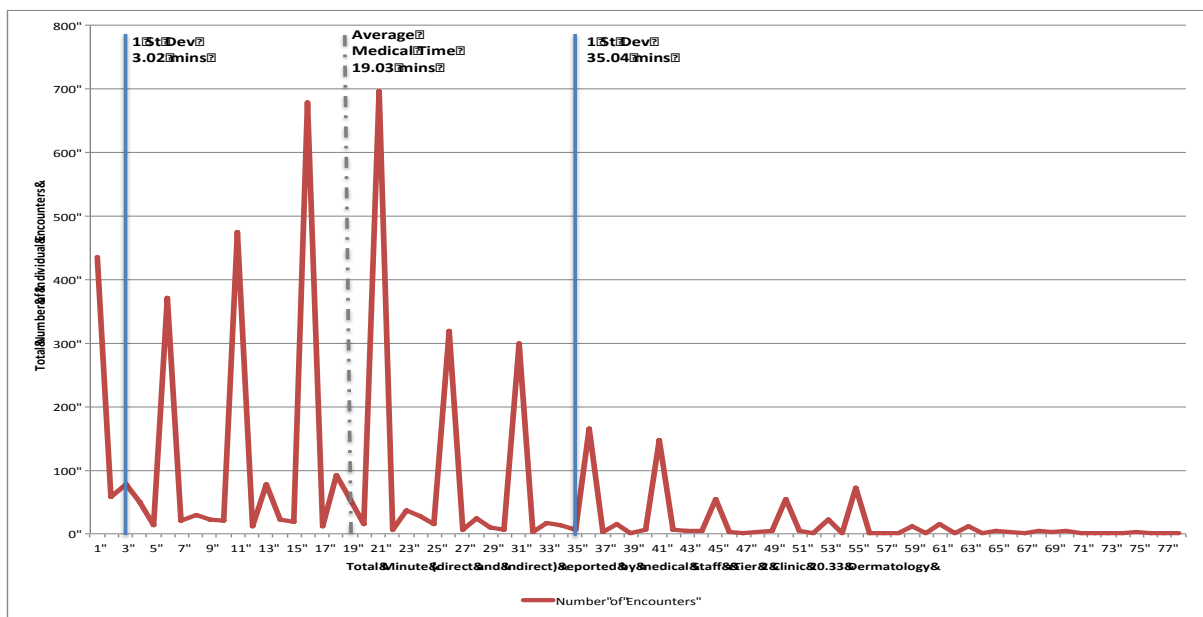
Figure 2.1 indicates 10.25% of records in this clinic are greater than one standard deviation from the mean.

Figure 2.2 below indicates that over 2,500 encounters in tier 2 clinic 40.28 Midwifery and Maternity reported no nursing time. Further investigations show that the majority of these align with services provided by allied health professionals. Equally there is a small sample of records (8.29%) that have reported medical time being provided during the treatment provided within the study period.

Figure 2-2 Distribution of total recorded time – nursing staff tier 2 clinic 40.28 Midwifery and Maternity
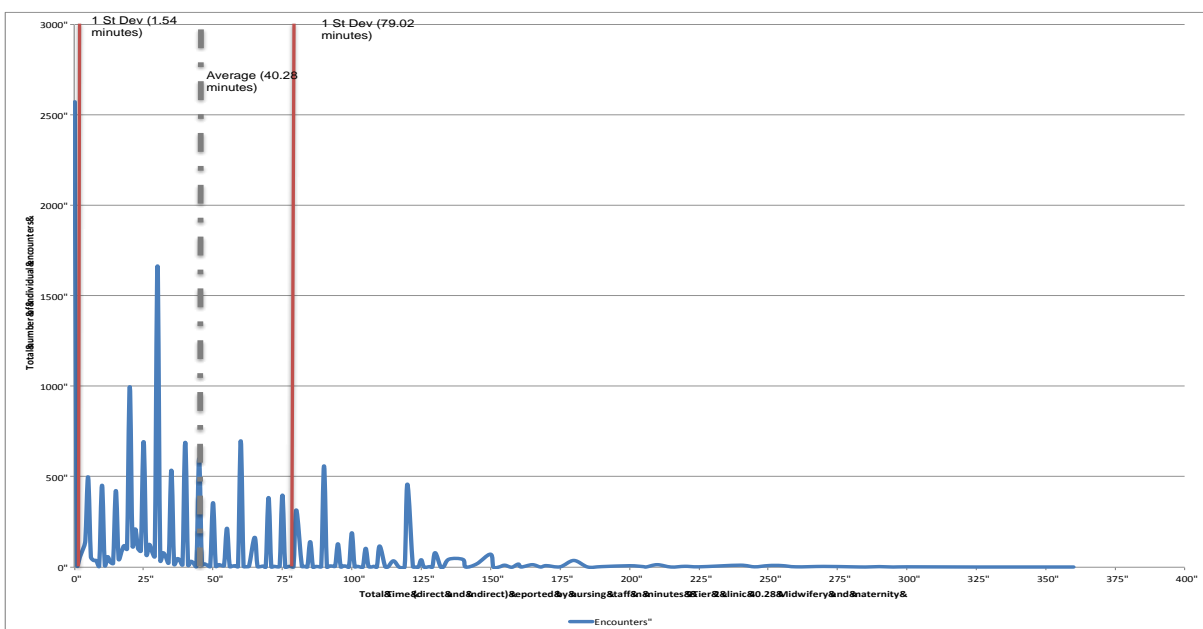
Notwithstanding these observations, the reported times are tightly clustered within 1 standard deviation of the mean.

The database is extremely robust. With more detailed analyses it will provide further insight as to the appropriateness of fit of the current tier 2 classification system; where further standardisation in counting and reporting is required and potential areas warranting classification refinement.

2.2 Distribution of time: subacute admitted services

A similar set of analyses were undertaken on the subacute admitted dataset against both care type and AN-SNAP class where provided. It should be noted that unlike the non-admitted dataset, this analyses is reported on a per diem basis as the records submitted to the study were on a bed day basis.

2.2.1 Medical Time

There was variation in the proportion of direct and indirect time reported between the care type classes (refer Table 2.7 directly below). The psychogeriatric care type predominantly involved senior medical staff when compared to the other care types.

Table 2-7 Proportion of medical time reported across subacute care types

Care Type	Proportion of Medical Direct Time	Proportion of Medical Indirect Time
Rehabilitation	53.19%	46.81%
Palliative Care	62.82%	37.18%
GEM	56.09%	43.91%
Psychogeriatric	96.39%	3.61%
Maintenance	51.58%	48.42%
Total subacute admitted dataset Medical Time	57.13%	42.87%

The spread of reported medical time across the respective care type classes is depicted in Table 2.8 below. (Totals include records where no care type was provided)

Table 2-8 Distribution of medical time across subacute care types

Care Type	Total Medical Minutes (Direct and Indirect)	Average Medical Time Per Bed day	Minimum	Maximum	Std Deviation	Total Bed-days
Rehabilitation	582,535	24.25	0	420	33.34	24,022
Palliative Care	223,360	34.22	0	575	38.2	6,528
GEM	365,510	27.30	0	520	35.33	13,390
Psychogeriatric	32,450	37.86	0	205	40.67	857
Maintenance	14,530	9.17	0	275	19.60	1,584
Total Medical Time subacute dataset	1,288,195	26.16	0	575	34.61	49,241

Per day distribution statistics by AN-SNAP class are depicted in Table 2.9 below.

Table 2-9 Distribution of medical time for records reporting an AN-SNAP class

AN-SNAP Class	Total Medical Time (Direct and Indirect) in Minutes	Per Bed day average Medical Time (minutes)	Minimum	Maximum	Std Deviation	Total Bed-days
Records with AN-SNAP Class identified	590,445	27.02	0	520	34.87	21,853

2.2.2 Nursing Time

Table 2.10 below indicates that on average higher nursing time is required by palliative care patients on a per day basis than other care type patients.

Table 2-10 Distribution of nursing time across subacute care types

Care Type	Total Nursing Minutes (Direct and Indirect)	Average Nursing Time per Bed day	Minimum	Maximum	Std Deviation	Total Bed-days
Rehabilitation	5,518,408	229.72	0	1595	160.04	24,022
Palliative Care	2,299,066	352.19	0	1710	204.90	6,528
GEM	3,852,570	287.72	0	1465	127.35	13,390
Psychogeriatric	293,320	342.26	0	1175	116.70	857
Maintenance	343,685	216.97	0	1320	183.73	1,584
Total	13,138,811	266.83	0	1710	164.47	49,241

The distribution of nursing time by AN-SNAP class, where identified, is provided in Table 2.11 below.

Table 2-11 Distribution of nursing time for records reporting an AN-SNAP class

AN-SNAP Class	Total Nursing Time (Direct and Indirect) in Minutes	Per Bed day average Nursing Time (minutes)	Minimum	Maximum	Std Deviation	Total Bed-days
Total Nursing Time across AN-SNAP classes	5,798,909	265.35	0	1630	163.92	21,853

2.2.3 Allied Health Professional Time

The data reported by allied health professionals as part of the subacute admitted data collection indicates that this professional group spends a higher proportion of their time with patients classified to the rehabilitation care type category. Provided in Table 2.12 below.

Table 2-12 Distribution of allied health professional time across subacute care types

Care Type	Total Allied Health Professional Minutes (Direct and Indirect)	Average AHP Time per Bed day	Minimum	Maximum	Std Deviation	Total Bed-days
Rehabilitation	1,811,590	75.41	0	1710	112.71	24,022
Palliative Care	135,920	20.82	0	1395	47.35	6,528
GEM	263,115	19.65	0	640	39.04	13,390
Psychogeriatric	2,060	2.4	0	230	11.72	857
Maintenance	17,155	10.83	0	335	29.71	1,584
Total AHP	2,394,845	48.64	0	1710	91.32	49,241

The distribution of allied health time by AN-SNAP class where identified is provided in Table 2.13 below.

Table 2-13 Distribution of allied health professional time for records reporting an AN-SNAP class

AN-SNAP class	Total A. H. Professional Time (Direct and Indirect) in Mins.	Per Bed day average AHP Time (minutes)	Minimum	Maximum	Std Deviation	Total Bed-days
Total with AN-SNAP identified	1,154,685	52.84	0	1710	100.97	21,853

2.2.4 Variation within Care Type

The reported cost per bed-day across the respective classes indicates a relatively clustered dataset. This suggests that the variation in inputs on a day by day basis is kept to a minimum in most instances, with days of admission and discharge from the wards typically accounting for the variance. Some of the within class variations, in terms of total time reported across the three clinical cohorts are depicted in the diagrams below.

Figure 2-3 Variation within rehabilitation care type – total time reported on the study database
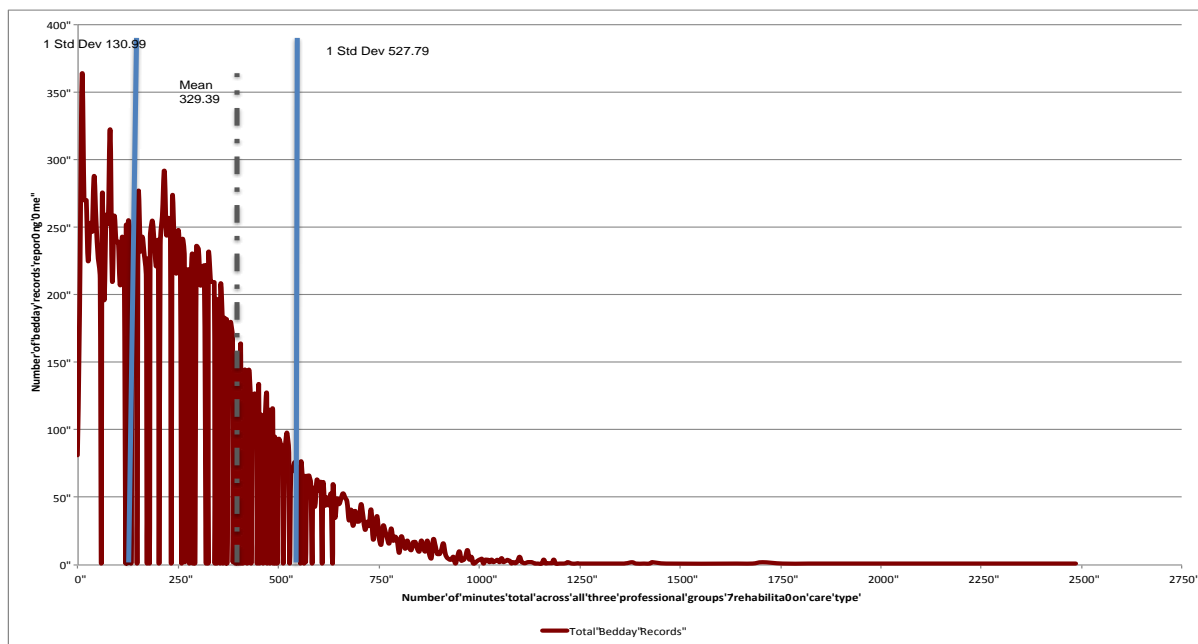
Figure 2-4 Variation within GEM care type – total time reported on the study database
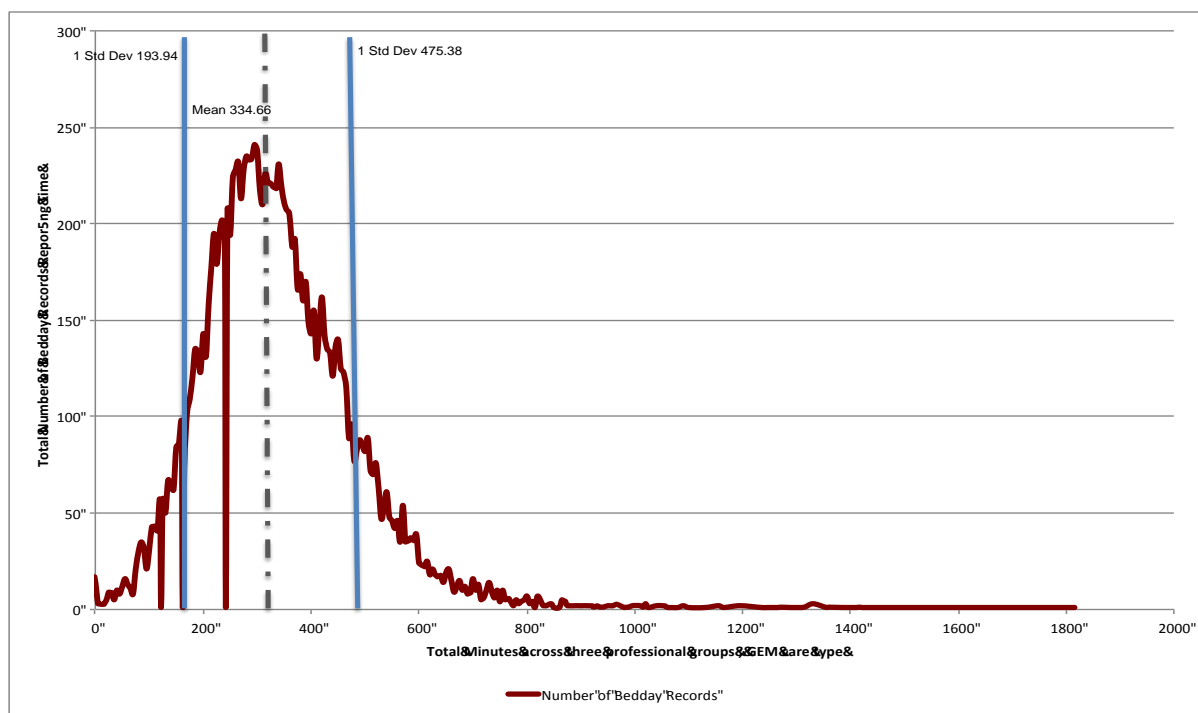
This information is useful in determining where future classification refinement could occur and establishing the degree of specificity attained through the AN-SNAP class compared to care type class assignment.

2.3   Other applications of the dataset

As referenced throughout this section of the report, the dataset generated through the study yields a platform for further analyses of a range of attributes that may impact upon the cost of service delivery within and between classes for both non-admitted and admitted subacute services respectively. An illustration of how the data can inform other aspects of service delivery and funding is provided below.

2.3.1   Indigenous status and time requirements

The dataset contains a flag for Indigenous status as outlined in Appendix G. The non-admitted dataset relating to individual encounters contains 11,008 records identified as being of Aboriginal and/or Torres Islander descent. Whilst this represents less than 2% of the overall dataset, the information contained in these records highlights that medical and nursing staff in particular spend, on average, more time with Indigenous patients than non-Indigenous patients.

Table 2-14 Comparison of medical time distribution – Indigenous and non-Indigenous encounters

Description	Total Medical Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
Total Medical Time – Individual Encounters identifying as being of Aboriginal and/or Torres Strait Islander descent	116032	10.54	0	270	18.89	11008
Total Medical Time – Individual Encounters identifying as not of Aboriginal and/or Torres Strait Islander descent	67379	5.27	0	225	15.66	12777

Table 2-15 Comparison of nursing time distribution –Indigenous and non-Indigenous encounters

Description	Total Nursing Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
Total Nursing Time – Individual Encounters identifying as being of Aboriginal and/or Torres Strait Islander descent	246180	22.36	0	960	56.6	11008
Total Nursing Time – Individual Encounters identifying as not of Aboriginal and/or Torres Strait Islander descent	95742	7.49	0	355	21.11	12777

Table 2-16 Comparison of allied health professional time distribution –Indigenous and non-Indigenous encounters

Description	Total Allied Health Professional Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
Total Allied Health Professional Time – Individual Encounters identifying as being of Aboriginal and/or Torres Strait Islander descent	117606	10.68	0	430	27.75	11008
Total Allied Health Professional Time – Individual Encounters identifying as not of Aboriginal and/or Torres Strait Islander descent	423886	33.18	0	450	30.86	12777

The dataset can be analysed further to identify similar distributions by tier 2 clinic and also to address whether the additional time spent with Indigenous patients is largely related to patient direct time or activities associated with indirect time.

2.4   Conclusion

The results of this study have provided IHPA and the jurisdictions with a robust cost dataset providing direct cost allocation to a level that has not previously been possible. This dataset can be used to understand the true underlying cost of treatment provided to both non-admitted and subacute admitted patients. It also contains encounter characteristics that can be used to support further classification development in these areas, and the time based data provides a national service weight reference table that can support local clinical costing until such time as individual patient costing can be achieved for non-admitted or subacute admitted patients.

The costing methodology adopted for the two datasets is presented in the next Section.

3. The Costing Methodology

The costing methodology adopted in this study, utilised data from a range of information systems, linking the respective records using the hospital code, unique medical record number of the patient, the date of service and the clinic name. The linking above and the application of a consistent cost allocation methodology *(based on the Australian Hospital Patient Costing Standards (AHPCS) version 2.0)* to the underlying expense data for overhead and indirect costs across all 43 sites was critical to embody reliability in the final costed data.

The study reference manual (Appendix EE) developed for participating hospitals describes in detail the data items collected and used in the costing process. Appendices G through to J provide detail on these dataset specifications with Section 5 providing indication to the variability in the unit costs reported at a jurisdictional level. Standard specifications were developed by the consultants for the submission of required data, however, to facilitate participation, flexibility was accorded to participating sites in terms of the format in which their data was submitted to help minimise the impost on hospital staff.

As a result, the study team obtained general ledger data extracts from some sites and costing input files and costed output files from others. Analysis of these files required different approaches by the study team in deriving the unit cost input for each cost bucket; this is described in detail below.

A unit input cost per cost bucket was calculated from the cost data supplied by each hospital or from the standard hourly rates reported for each staff category. Where site specific hourly rates were not available, a state average was used.

Unit rates were then converted to a cost per minute and applied to the total time (both direct and indirect time) reported per patient by each participating clinician.

For pharmacy, pathology and imaging services, the local unit cost per test was identified and applied to the total number of tests reported per patient encounter using a 15 day window to link data sources in the non-admitted dataset.

For the subacute admitted dataset, the unit cost per test or pharmaceutical was applied to the units of service consumed by the patient on a per day basis. Where this information was not available, an average unit cost was applied based upon the average determined from the cost file submitted by the hospital, adjusted by relevant product fractions.

Similar processes were adopted for the other cost buckets, where the distribution was on an encounter (non-admitted services) or per day (subacute admitted) basis. The costing methodology deployed in the study with detail by cost bucket is outlined below.

3.1 Standard Unit Costs

The costing methodology was based on the application of standard unit input costs to reduce salary and wages induced "noise" in the costed data. This enabled variation in cost to be explained by differences in service utilisation or patient characteristics (rather than being attributed to variable costing allocations and algorithms). Accordingly unit cost data was sought for the following employee categories.

3.1.1 Labour

The unit cost for each labour category was based on the site average hourly rate for the following staff groups and those staff groups identified with in the Allied Health Reference list described within Part B Section 5:

- Senior Medical (including VMO/VMS)
- Junior Medical
- Clinical Nurse Consultants

- Registered Nurse
- Enrolled Nurse
- Assistant in Nursing

- Physiotherapist
- Social Work
- Dietician
- Occupational Therapist
- Psychologist
- Speech Pathologist

- Audiologist
- Orthotists
- Dental Hygienist
- Dental Therapist
- Pharmacist

Typically the data were derived from the respective payroll systems of each participating hospital, although in the case of Queensland, relevant enterprise bargain agreement documents were provided and the study team sourced the required information from these documents. Data relating to allowances, overtime, penalties, superannuation, all loadings, etc. were also sought. Where provided, these costs were used in the derivation of unit input costs for the NHCDC cost bucket "on costs".

For those sites that were unable to provide either a full suite of labour unit input costs or were missing data for specific staff categories, the representative state average was substituted for the site.

Tables 3.1 to 3.3 list the jurisdictional average hourly rates by staff category. The data helps to inform why some variability in cost profiles arises.

Table 3-1 : Average Hourly Rate – Medical Staff Categories

Jurisdiction	Average Hourly Reported Rate	
	Senior Medical	Junior Medical
NSW	$109.10	$79.18
NT	$112.47	$79.72
QLD	$138.23	$81.31
SA	$110.75	$75.81
VIC	$134.79	$70.87
WA	$132.29	N/A
Study Average	$122.94	$77.38

Table 3-2 Average Hourly Rate – Nursing Staff Categories

Jurisdiction	Average Hourly Reported Rate			
	Advanced Nurse	Registered Nurse	Enrolled Nurse	Other Nurse
NSW	$54.82	$44.31	$35.16	$30.64
NT	$54.24	$44.03	$34.46	$30.67
QLD	$52.96	$38.06	$27.63	$25.81
SA	$49.74	$38.21	$28.12	$22.31
VIC	$44.85	$46.31	$33.21	$35.89
WA	$53.70	$53.70	N/A	N/A
Study Average	$51.72	$44.10	$31.72	$29.06

* Western Australia provided one rate for multiple staff categories to best represent the two community mental health clinics that participated.

Table 3-3 Average Hourly Rate – Allied Health Professional Staff Categories

Jurisdiction	Average Hourly Reported Rate															
	Aboriginal Liason Officer	Aboriginal Health Worker	Allied health	Cardiac Tech	Dietetics & Nutrition	Occupational therapist	Other therapists	Other Allied Health	Allied Health Suport	Pharmacy	Physiotherapy	Podiatry	Psychology	Social work	Speech Therapist	Student
NSW	$49.48	$49.48	$47.11	$49.48	$47.86	$47.50	$49.48	$49.48	$49.48	$49.48	$49.92	$49.48	$55.63	$51.00	$47.25	$0.00
NT	$46.71	$46.71	$47.17	$47.45	$46.66	$49.55	$48.18	$48.18	$46.71	$49.34	$49.98	$48.29	$55.21	$50.44	$47.25	$0.00
QLD	$23.82	$23.82	$49.46	$33.83	$39.11	$49.46	$33.83	$33.83	$23.82	$49.46	$49.46	$39.11	$55.74	$49.46	$49.46	$0.00
SA	$32.16	$34.06	$44.15	$45.72	$44.15	$49.98	$44.15	$44.15	$32.16	$49.98	$49.98	$44.15	$63.71	$56.12	$49.98	$0.00
VIC	$37.39	$37.39	$45.56	$37.39	$40.43	$73.25	$47.23	$47.23	$37.39	$47.23	$51.24	$43.42	$49.82	$45.00	$45.07	$0.00
WA	$49.24	$49.24	$49.24	$49.24	$49.24	$54.40	$34.88	$34.88	$34.88	$49.24	$49.24	$49.24	$55.25	$52.42	$49.24	$0.00
Study Average	**$43.15**	**$43.64**	**$46.49**	**$47.12**	**$46.17**	**$49.84**	**$46.16**	**$46.55**	**$42.49**	**$49.49**	**$49.95**	**$47.29**	**$57.40**	**$52.00**	**$48.04**	**$0.00**

3.2 Direct Time Attributable to a Patient

The hourly rates were converted to a rate per minute and applied to both the direct and indirect time reported by each clinician spent with the patient or as part of treating/managing the patient and recorded either on the manual data collection form or in the locally supplied clinical information systems extracts.

The same hourly rates supplied by hospitals were applied to the respective datasets (i.e. if a hospital indicated that the senior medical hourly rate for their establishment is $132.55 without on costs, then this value was converted to an input cost per minute and applied to the time reported on the non-admitted dataset and the subacute admitted dataset respectively).

3.2.1 Ancillary Services – Pathology, Imaging and Pharmacy

Data extracts were used to source the number of pathology or radiology tests provided to patients, as well as pharmaceuticals provided. Each site was asked to provide a standard unit cost for individual tests (pathology, imaging) or pharmaceuticals which was then applied in the costing process to derive the direct component of the respective cost buckets.

Table 3.4 provides an illustration of the type of data provided to the study team, where hospitals were able to comply with the request.

Table 3-4 Illustration of Ancillary Input Cost File provided by participating sites

Examination Code	Examination Description	Examination Standard Cost
65060	Haemoglobin, erythrocyte sedimentation rate, blood viscosity 1 or more tests	$7.85
65066	Examination of: (a) a blood film by special stains to demonstrate Heinz bodies, parasites or iron; or (b) a blood film by enzyme cytochemistry for neutrophil alkaline phosphatase, alphanaphthyl acetate esterase or chloroacetate esterase; or (c) a blood film using any other special staining methods including periodic acid Schiff and Sudan Black; or (d) a urinary sediment for haemosiderin including a service described in item 65072	$10.40
65070	erythrocyte count, haematocrit, haemoglobin, calculation or measurement of red cell index or indices, platelet count, leucocyte count and manual or instrument generated differential count - not being a service where haemoglobin only is requested - one or more instrument generated set of results from a single sample; and (if performed) (a) a morphological assessment of a blood film; (b) any service in item 65060 or 65072	$16.95
65072	Examination for reticulocytes including a reticulocyte count by any method - 1 or more tests	$10.20
65075	Haemolysis or metabolic enzymes - assessment by: (a) erythrocyte autohaemolysis test; or (b) erythrocyte osmotic fragility test; or (c) sugar water test; or (d) G-6-P D (qualitative or quantitative) test; or (e) pyruvate kinase (qualitative or quantitative) test; or (f) acid haemolysis test; or (g) quantitation of muramidase in serum or urine; or (h) Donath Landsteiner antibody test; or (i) other erythrocyte metabolic enzyme tests - 1 or more tests	$51.95
65078	Tests for the diagnosis of thalassaemia consisting of haemoglobin electrophoresis or chromatography and at least 2 of: (a) examination for HbH; or (b) quantitation of HbA2; or (c) quantitation of HbF; including (if performed) any service described in item 65060 or 65070	$90.20
65081	Tests for the investigation of haemoglobinopathy consisting of haemoglobin electrophoresis or chromatography and at least 1 of: (a) heat denaturation test; or (b) isopropanol precipitation test; or (c) tests for the presence of haemoglobin S; or (d) quantitation of any haemoglobin fraction (including S, C, D, E) including (if performed) any service described in item 65060, 65070 or 65078	$96.60
65087	Bone marrow - examination of aspirated material (including clot sections where necessary), including (if performed): any test described in item 65060, 65066 or 65070	$83.10

Even though standard specifications were produced as part of the overall design of the study, participating hospitals elected to submit data in a format that best complied with the request, and minimised the impost on the hospital. For example, some hospitals provided the total ancillary cost charged to a patient encounter or day and others provided the total number of tests as well as the unit cost for each test.

The variability in data provision introduced challenges to the team in terms of linkage. Additional requests for unit costs and examination codes were made to participating hospitals and where possible additional data was provided to the study team. Analysis of the number of occurrences and the materiality of linking was undertaken to guide requests and focus attention on either high value and/or high occurrence diagnostics and or prosthetics and consumables.

Appendix C and Section 4 (Part A) provides a list of hospitals that provided the respective data for these services.

3.2.1.1 High Cost Consumables and Prostheses

Each participating clinic from each site was asked to identify up to twenty high cost consumables and prostheses specifically used in the treatment of their patients. A threshold of unit cost greater than $50 was used to identify "high cost" items falling into these two categories. Some clinics such as dialysis clinics at some sites indicated that few items would fall into this category, however for each dialysis treatment a bundle of consumables were standard issue to patients and collectively this bundle would exceed the threshold. Where this occurred, bundled costs were also accepted.

In a number of instances individual clinics were able to name a range of high cost consumables, challenges arose however in their ability to identify an appropriate cost profile. Therefore the resultant compliance to this data request was highly variable as described and illustrated in Section 4 (Part A). Table 3.5 provides an illustration of the data provided to the study team for each of the high cost prostheses for individual clinics. A similar set of data was provided for high cost consumables.

Table 3-5 Illustration of Prosthetic Input Cost File provided by participating sites

Site Code	Clinic Code	Clinic Description	Study Prosthetic Code	Prosthetic Description	Prosthetic Unit Cost
ABC	89472	ABC Diabetes Service	5	Vacodiaped cam boot	$350.00
ABC	89472	ABC Diabetes Service	2	Formthotics Pre-fabricated Foot Orthotics	$36.00
ABC	89472	ABC Diabetes Service	4	Darco All-Purpose Boot	$27.00
ABC	89472	ABC Diabetes Service	3	PPT Adhesive cushioning	$4.75
ABC	89472	ABC Diabetes Service	1	Adhesive Felt	$3.00
DEF	EYE	Ophthalmology	1	Prosthetic eye -Clinician A	$1,150.00
DEF	EYE	Ophthalmology	2	Prosthetic eye - Clinician B	$1,275.00

3.2.1.2 Overheads

Overhead costs associated with each of the above cost buckets needed to be derived for each site. To enable this process the study team requested access to either the most recent:

- annual expenditure profile (typically ascertained from the general ledger), or

- completed annual patient costed data (containing sufficient information to identify the overhead costs allocated to non-admitted services.) It was assumed that the allocation of overheads to non-admitted services is consistent with NHCDC costing standards and has been validated by the sites patient costing staff.

The annual volume of non-admitted activity and occupied bed days for subacute admitted patients for the same period was also required. Calculation of the average overhead unit cost was obtained from these two data sources and distributed to the patient encounter/record in the case of non-admitted services, and occupied bed day for subacute admitted services. The allocation to the respective cost buckets was based on either a per time basis, per encounter basis or per day basis. The method of allocation is described below.

3.3 Common costing approaches adopted across both services

The costing methodology adopted across the two product types were similar in many aspects. The major difference being the:

- Distribution for non-admitted services was based upon time, service utilisation per reported encounter

- Distribution of subacute admitted services was based upon time, service utilisation per reported bed-day.

The following outlines common activities undertaken in the derivation of the cost profile for the respective product types.

3.3.1 Stage 1 - Preparation of cost files

In order to calculate the costing inputs, the study (in accordance with the agreed design) requested an extract of the full FY2012/13 General Ledger that included Program, Cost Centre and Account Code data; with mapping to the relevant *Australian Hospital Patient Costing Standard v2.0* and total annual value per NHCDC cost bucket (refer Appendix G through to J for complete data specification).

As information was received from participating jurisdictions in differing formats, the following processing procedures were conducted in order to align the cost data to the required specification:

Table 3-6 Summary of Input Cost File provided by participating sites

State	Format of data received	Processing required
NSW	Extract of full GL at the level of program, cost centre and Account code.	• Indexation if GL received was FY 2011/12 • Mapping to AHPCS v2.0 • Monthly values summed to produced total annual spend
SA	Extract of full GL at the level of cost centre, account code and value by month of financial year	• Cost centres codes were mapped to final / overhead in accordance with AHPCS v2.0 GL 4.003 – Cost Centre Mapping • Account codes mapped to NHCDC cost buckets using AHPCS v2.0 • Monthly values summed to produce total annual spend
NT	Extract of full GL at the level of cost centre, account code and value by month of financial year	• Cost centres codes were mapped to final / overhead in accordance with AHPCS v2.0 GL 4.003 – Cost Centre Mapping • Account codes mapped to NHCDC cost buckets using AHPCS v2.0 • Monthly values summed to produce total annual spend
VIC – Bendigo	NHCDC_Round 16 cost dataset by cost bucket for non-admitted episodes at encounter level	• Calculated average cost per encounter for cost buckets
QLD	NHCDC_Round 16 cost dataset by cost bucket aggregated to average cost per Tier 2 category	• Average cost per bucket information used as provided
WA	Subset of FY2012/13 GL relating to the two facilities participating in the study with line items corresponding to cost buckets	• Calculated average cost per encounter for cost buckets

3.3.2 Stage 2 - Calculation of standard unit costs used in the costing process

To prepare for the costing process, the following information was calculated for each participating facility. These values have then been used throughout the cost application process.

i. Fractions to be allocated to the respective product types (non-admitted and subacute admitted activity for those jurisdictions that did not provide information already costed and apportioned).

   Note: Product fractions were applied to cost centres as per financial data supplied to the study team from the respective jurisdictions. Where detailed financial data was not available, an appropriate product fraction was calculated based on either:

   o NHCDC Round 16 returns; or (if sites did not report outpatient activity in the NHCDC Round 16)

- o cost centre mapping groups as defined by the Australian Hospital Patient Costing Standards v2.0 were applied and the values employed were restricted to those that were applicable to the respective programs being costed (non-admitted services and subacute admitted services respectively as specified by the jurisdiction).

  - The total expenditure for these cost centres was summed and expressed as an overall percentage of the total hospital budget (less TTR, special purpose grants and funds held in trust funds, etc.).

  - This fraction was then applied to the overhead cost centres to identify an amount to be allocated to the relevant cost buckets.

  - As an illustration, for medical overheads the medical administration cost centre was identified. Clinical units, such as cardiology, urology, etc. were also identified and an outpatient fraction (or subacute admitted fraction respectively) was applied to these cost centres to extract the appropriate expenditure proportion.

  - Derivation of the fractions was dependent upon the data provided by the hospital. Some identified specific fractions for each cost centre, others were derived based upon the total expenditure of known outpatient (or subacute admitted services) as a percentage of total hospital expenditure.

  - The product fraction could vary by cost centre depending upon the information provided by each site.

ii. Total annual non-admitted encounters and subacute admitted bed-days.

The unit input cost per minute for each of the respective clinical staffing categories was derived for each product type based upon the:

- Average number of minutes per staff category (medical, nursing and allied health) as reported through direct and indirect time recorded on the non-admitted OCR forms and local data extracts

- Average number of minutes per staff category (medical, nursing and allied health) as reported through direct and indirect time recorded on the subacute admitted OCR forms and local data extracts.

3.4   Derivation of a cost per encounter for non-admitted products

Unit input costs for labour, ancillary services and other cost buckets identified through the preceding process were then applied to each non-admitted encounter contained on the study database. Costs per encounter were calculated for each cost bucket using a two-step process:

3.4.1   Cost Buckets: Time-Medical, Nursing, Allied Health

Direct Costs (includes direct and indirect staff time) – Cost buckets WardMedDir, WardNursDir, AlliedDir	
Step 1: *Development of the unit cost*	Participating hospitals were requested to provide standard unit input costs per staff category as collected on the optical character recognition (OCR) forms. Where these costs were provided at a facility level, this value was used. Where this value was not provided, a state average hourly rate was used. Hourly rates were then divided by 60 to provide a direct rate per minute of time
Calculation methodology	*Average hourly rate (A) / 60 (B) = Direct rate per minute (C)*
Step 2: *Application methodology*	The total time per encounter was derived through the sum of minutes of time (based upon the sum of direct and indirect time) completed on the Optical Character Recognition (OCR) forms by staff type (per form: e.g. senior medical, junior medical, nursing categories, allied health categories). The sum of minutes of time was multiplied by the direct rate per minute to calculate the total value of the time for each staff group for each episode. *Total time per form by staff type(sum of direct and indirect time) (D) * Direct rate per minute (C) = Total "direct" cost per episode (E)*

Overhead Costs – Cost buckets WardMedOhd, WardNursOhd, AlliedOhd

Overhead Costs – Cost buckets WardMedOhd, WardNursOhd, AlliedOhd	
Step 1: *Development of the unit cost*	Prior to commencing the costing process, a non-admitted fraction was applied to the relevant cost centres isolating the total value of expense in each cost bucket that was applicable to non admitted services. (As described in Stage 2 (1)). The sum of the cost reported in the GL for the overhead cost buckets was divided by the total number of annual encounters to derive an overhead cost per encounter for each staff group. The average number of minutes per encounter per staff group was derived from the OCR forms (based on the total direct and indirect reported time). The overhead cost per encounter was then divided by the average number of minutes per encounter to provide an average overhead cost per minute per encounter by staff group.
Calculation methodology	Step 1 *Total annual cost reported for each cost bucket (F) * Fraction to be applied to non-admitted services (A) = Value to be allocated to non-admitted activity (G)* (Part B of this step was performed if required based on underlying financial information provided.) Step 2 *Value to be allocated to non-admitted activity (G) / Total annual encounters (B) = Cost per encounter (H)* Step 3 *Cost per encounter (H) / Average number of minutes per encounter for each staff group (C) = Overhead cost per minute for each staff group (I)*
Step 2: *Application methodology*	The total time (the total of the direct and indirect time reported by each staffing category) per encounter was derived from the OCR dataset or local extractions provided to the study team. The sum of minutes of time was multiplied by the Overhead cost per minute calculated specifically for each clinical professional group and applied to each non-admitted encounter total overhead for each staff group for each episode. *Total time per form by staff type (D) * Overhead cost per minute (I) = Total overhead cost per episode*

3.4.2   Cost Buckets: Ancillary Services (Radiology, Pathology and Pharmacy)

Direct Costs – Cost buckets PathDir, ImagDir, PharmDir	
Step 1: *Development of the unit cost*	Participating hospitals were asked to supply files for each respective ancillary service relating to the patient areas covered in the study. The requested information included both incidence of service and the hospital reported cost value to be applied to the service. These data were linked to the OCR data and ancillary costs attributed to each service event as appropriate. Where hospitals were unable to supply either the incidence or hospital specific direct cost of the service, a zero cost was applied to that relevant service event.
Calculation methodology	*Hospital reported service event for episode (J) * hospital reported cost for that service event (K) = Direct cost per service event (L)*
Step 2: *Application methodology*	The ancillary cost per encounter was then applied to all episodes reported in the study. *If, hospital reported service event (J) >0, then apply Direct cost (L)*

Overhead Costs – Cost buckets PathOhd, ImagOhd, PharmOhd	
Step 1: *Development of the unit cost*	Prior to commencing the costing process, a non-admitted fraction was applied to the relevant cost centres that specifically related to the overheads associated with ancillary services (as described in Stage 2 (i)). The sum of the cost reported for the overhead cost buckets was then divided by the total number of annual encounters to derive an overhead cost per encounter for each ancillary service group.
Calculation methodology	Step 1 *Total annual cost reported for each cost bucket (F) * Fraction to be applied to non admitted services (A) = Value to be allocated to non admitted activity (G)* (Part B of this step was performed if required based on underlying financial information provided.) Step 2 *Value to be allocated to non admitted activity (G) / Total annual encounters (B) = Cost per encounter (J)*
Step 2: *Application methodology*	For those hospitals where ancillary extracts were provided, the overhead cost was applied to only those cases that reported consumption of ancillary services. For those hospitals where no ancillary extracts were provided an ancillary overhead cost per encounter was then applied to all episodes reported in the study.

3.4.3   Cost Buckets: Consumables and Prostheses

Direct Costs – Cost buckets WardSuppliesDir, ProsDir	
Step 1: *Development of the cost attribution*	Participating hospitals were asked to supply details for the top 20 consumables and prosthetics relating to the patient areas covered in the study, either at hospital level or specific to a particular clinic or ward. The incidence was recorded on the OCR form and the hospital specific value was provided in a standard extract. Where hospitals were unable to supply high cost consumable or prosthetic lists, the following process was adopted.
Calculation methodology	*OCR reported consumable / prosthesis (N) * hospital reported direct cost for that consumable / prosthesis (O) = Direct cost per consumable / prosthetic (P)*
Step 2: *Application*	The total consumable / prosthetic cost per encounter was derived through the sum of all consumables / prosthetics reported through OCR.

Direct Costs – Cost buckets WardSuppliesDir, ProsDir	
methodology	*Sum of all Direct costs for consumables / prosthetics linked to the non-admitted episode (P) = Consumable / Prosthetics Direct cost per encounter (Q).*

Overhead Costs – Cost buckets WardSuppliesOhd, ProsOhd		
Step 1: *Development of the unit cost*	The non-admitted fraction was applied to the cost centres deemed to represent the overheads for ward consumables and prosthetics. The sum of the cost reported for the consumables and prosthetics overhead cost buckets respectively was then divided by the total number of annual encounters to derive an overhead cost per encounter for each ancillary service group.	
Calculation methodology	Step 1	*Total annual cost reported for each cost bucket (F) * Fraction to be applied to non-admitted services (A) = Value to be allocated to non-admitted activity (G)* (Part B of this step was performed if required based on underlying financial information provided.)
	Step 2	*Value to be allocated to non- admitted activity (G) / Total annual encounters (B) = Cost per encounter (J)*
Step 2: *Application methodology*	The overhead cost per encounter was then applied to all episodes reported in the study	

3.4.4   Cost Buckets: Remaining buckets - Direct and Overhead

Direct Costs – Cost buckets NonClinicalDir , NonClinicalOhd, SPSDir, SPSOhd, OncostsDir, OncostsOhd, HotelDir, HotelOhd, DeprecDir, DeprecOhd, OtherOhd(corporate)		
Step 1: *Development of the unit cost*	The non-admitted fraction was applied to each of the cost centres aligning with the cost buckets represented above. The sum of the cost reported for each of these cost buckets were then divided by the total number of annual encounters to derive an unit input cost per encounter for each of hotel services, non-clinical services, oncosts, depreciation and corporate services.	
Calculation methodology	Step 1	*Total annual cost reported for each cost bucket (F) * Fraction to be applied to non-admitted services (A) = Value to be allocated to non-admitted activity (G)*
	Step 2	*Value to be allocated to non-admitted activity (G) / Total annual encounters (B) = Cost per encounter (J)*
Step 2: *Application methodology*	The remaining bucket cost per encounter was then applied to all encounters.	

For hospitals that provided data in cost bucket format, there were instances where the on-costs cost bucket was omitted. In these instances, 9% of costs in the medical, nursing, allied health and non-clinical direct and indirect cost buckets were backed out of these cost buckets and allocated to the oncost direct and indirect cost bucket. The unit input costs for each of the cost buckets were then recalculated in-line with the documentation provided above.

3.5   Derivation of a cost per bed day for subacute admitted products

Unit input costs for labour, ancillary services and other cost buckets identified through the processes outlined in Section 8.3 were then applied to each subacute admitted bed day contained on the study database. Costs per bed day were calculated for each cost bucket using a two-step process described in the tables below.

3.5.1   Cost Buckets: Time-Medical, Nursing, Allied Health

Direct Costs (includes direct and indirect staff time) – Cost buckets WardMedDir, WardNursDir, AlliedDir	
Step 1: *Development of the unit cost*	Participating hospitals were asked to provide standard unit input costs per staff category as collected on the subacute admitted Optical Character Recognition (OCR) forms. Where these costs were provided at a facility level, this value was used. Where this value was not provided, a state average hourly rate was used. Hourly rates were then divided by 60 to provide a direct rate per minute of time.
Calculation methodology	*Average hourly rate (A) / 60 (B) = Direct rate per minute (C)*
Step 2: *Application methodology*	The total time per encounter was derived through the sum of minutes of time (based upon the sum of direct and indirect time) completed on the Optical Character Recognition (OCR) forms by staff type (per form: e.g. senior medical, junior medical, nursing categories, allied health categories). The sum of minutes of time was multiplied by the unit cost rate per minute to calculate the total value of the direct care for each staff group per episode. *Total time per form by staff type (D) * Direct unit rate per minute (C) = Total direct cost per episode (E)*

Overhead Costs – Cost buckets WardMedOhd, WardNursOhd, AlliedOhd	
Step 1: *Development of the unit cost*	Prior to commencing the costing process, a subacute admitted fraction was applied to the relevant cost centres isolating the total value of expense in each cost bucket that was applicable to subacute admitted services (as described in Stage 2 (i)). The sum of the cost reported for the overhead cost buckets was divided by the total number of annual bed-days to derive an overhead cost per bed day for each staff group. The average number of minutes per bed day per staff group was derived from the OCR forms. The overhead cost per bed day was then divided by the average number of minutes per bed day to provide an average overhead cost per bed day by staff group.
Calculation methodology	Step 1 *Total annual cost reported for each cost bucket (F) * Fraction to be applied to subacute admitted services (A) = Value to be allocated to subacute admitted activity (G) (Part B of this step was performed if required based on underlying financial information provided.)* Step 2 *Value to be allocated to subacute admitted activity (G) / Total annual bed-days (B) = Cost per bed day (H)* Step 3 *Cost per bed day (H) / Average number of minutes per bed day for each staff group (C) = Overhead cost per minute for each staff group (I)*
Step 2: *Application methodology*	The total time per bed day was derived through the sum of minutes (the total of the direct and indirect time reported by each staffing category) of time completed on the OCR forms by staff type (per form: e.g. senior medical, junior medical, nursing categories, allied health categories). The sum of minutes of time was multiplied by the Overhead cost per minute to calculate the total overhead for each staff group for each episode. *Total time per form by staff type (D) * Overhead cost per minute (I) = Total overhead cost per episode*

3.5.2   Cost Buckets: Ancillary Services (Radiology, Pathology and Pharmacy)

Direct Costs – Cost buckets PathDir, ImagDir, PharmDir	
Step 1: *Development of the cost attribution*	Participating hospitals were asked to supply files for each respective ancillary service relating to the patient areas covered in the study. The requested information included both incidence of service and the hospital reported cost values to be applied to the service. These data were linked to the OCR data and ancillary costs attributed to each service event as appropriate. Where hospitals were unable to supply either the incidence or hospital specific direct cost of the service, a zero cost was applied to that service event.
Calculation methodology	*Hospital reported service event for episode (J) * hospital reported cost for that service event (K) = Direct cost per service event (L)*
Step 2: *Application methodology*	The ancillary cost per encounter was then applied to all episodes reported in the study. *If, hospital reported service event (J) >0, then apply Direct cost (L)*

Overhead Costs – Cost buckets PathOhd, ImagOhd, PharmOhd	
Step 1: *Development of the unit cost*	Prior to commencing the costing process, a non-admitted fraction was applied to the relevant cost centres that specifically related to the overheads associated with ancillary services (as described in Stage 2 (i)).The sum of the cost reported for the overhead cost buckets was then divided by the total number of annual encounters to derive an overhead cost per encounter for each ancillary service group.
Calculation methodology	Step 1 *Total annual cost reported for each cost bucket (F) * Fraction to be applied to subacute admitted services (A) = Value to be allocated to subacute admitted activity (G) (Part B of this step was performed if required based on underlying financial information provided.)* Step 2 *Value to be allocated to subacute admitted activity (G) / Total annual bed-days (B) = Cost per bed day (J)*
Step 2: *Application methodology*	For those hospitals where ancillary extracts were provided, the overhead cost was applied to only those cases that reported consumption of ancillary services. For those hospitals where no ancillary extracts were provided an ancillary overhead cost per encounter was then applied to all episodes reported in the study.

3.5.3   Cost Buckets: Consumables and Prostheses

Direct Costs – Cost buckets WardSuppliesDir, ProsDir	
Step 1: *Development of the cost attribution*	Participating hospitals were asked to supply details for the top 20 consumables and prosthetics relating to the patient areas covered in the study, either at hospital level or specific to a particular clinic or ward. The incidence was recorded on the OCR form and the hospital specific value was provided in a standard extract. Where hospitals were unable to provide the specific direct cost of the service, a zero cost per service was generated. A subacute admitted fraction was applied to the medical and surgical supply (consumables) cost centre and to the prosthetic cost centre. The direct costs associated with these cost centres were then divided by the total number of subacute bed-days to generate a per bed day unit cost.
Calculation methodology	*OCR reported consumable / prosthesis (N) * hospital reported direct cost for that consumable / prosthesis (O) = Direct cost per consumable / prosthetic (P)*

Direct Costs – Cost buckets WardSuppliesDir, ProsDir	
	[Consumable/prosthesis direct cost (O_2) * subacute admitted fraction(A)] / Total subacute bed-days = Consumable / Prosthetics Direct cost per bed day (Q_2)
Step 2: *Application methodology*	The total consumable / prosthetic cost per bed day was derived through the sum of all consumables / prosthetics reported through OCR. *Sum of all Direct costs for consumables / prosthetics linked to the subacute admitted episode (P) = Consumable / Prosthetics Direct cost per bed day (Q).*

Overhead Costs – Cost buckets WardSuppliesOhd, ProsOhd		
Step 1: *Development of the unit cost*	The subacute admitted fraction was applied to the cost centres deemed to represent the overheads for ward consumables and prosthetics. The sum of the cost reported for the consumables and prosthetics overhead cost buckets respectively was then divided by the total number of annual bed-days to derive an overhead cost per bed day for each ancillary service group.	
Calculation methodology	Step 1	*Total annual cost reported for each cost bucket (F) * Fraction to be applied to subacute admitted services (A) = Value to be allocated to subacute admitted activity (G)* (Part B of this step was performed if required based on underlying financial information provided.)
	Step 2	*Value to be allocated to subacute admitted activity (G) / Total annual bed-days (B) = Cost per bed day (J)*
Step 2: *Application methodology*	The overhead cost per bed day was then applied to all episodes reported in the study	

3.5.4　Cost Buckets: Remaining buckets - Direct and Overhead

Direct Costs – Cost buckets NonClinicalDir , NonClinicalOhd, SPSDir, SPSOhd, OncostsDir, OncostsOhd, HotelDir, HotelOhd, DeprecDir, DeprecOhd, OtherOhd(corporate)		
Step 1: *Development of the unit cost*	The sub acute admitted fraction was applied to each of the cost centres aligning with the cost buckets represented above. The sum of the cost reported for each of these cost buckets was then divided by the total number of annual bed-days to derive an overhead cost per bed day for each of hotel services, non-clinical services, oncosts, depreciation and corporate services.	
Calculation methodology	Step 1	*Total annual cost reported for each cost bucket (F) * Fraction to be applied to subacute admitted services (A) = Value to be allocated to subacute admitted activity (G)*
	Step 2	*Value to be allocated to subacute admitted activity (G) / Total annual bed-days (B) = Cost per bed day (J)*
Step 2: *Application methodology*	The cost per bed day for these remaining buckets was then applied to all bed-days.	

For hospitals providing data in cost bucket format, there were instances where the oncosts cost bucket was omitted. In these instances, 9% * of costs in the medical, nursing, allied health and non-clinical direct and indirect cost buckets were backed out of these cost buckets and allocated to the oncost direct and indirect cost bucket. The unit input costs for each of the cost buckets were then recalculated in-line with the documentation provided above.

*9% represents a conservative allocation for staff oncost expenses.

4.   Technical Considerations

This section provides background to the processes employed throughout the project to validate quality data receipt and linking. This section will focus initially on the linking of two key patient attributable cost elements; ancillary activity (Imaging, Pathology & Pharmacy) and high cost Consumables and Prosthetics. The cost attribution for these services has been discussed in Section 3 describing the Costing Methodology. Validation analysis undertaken can be grouped as follows

- Review and confirmation of the appropriate Tier 2 mapping for all non-admitted clinics participating in the study

- Review of episode count by classification to ensure that a statistically representative cost sample was reported for each classification category

- On site manual form completion QA check by an independent observer

- High level review of reported average minutes of clinician time across sites and category (a 'reasonableness' check)

- Cross check of all submitted site data extracts against expected data extracts

- Review of all linked data files to ensure that all information received was linked in accordance with the methodology and linkage windows agreed by the steering committee

- Review of final allocated cost amounts against submitted expense files and previous NHCDC submissions for the site (where available) to ensure that total allocate cost was within the expected range

- Review of the key patient attributable ancillary cost files to provide an understanding of potential underrepresentation of costs.

- High level variability assessment of costs within classes and between class and jurisdiction.

The purpose of this section is to outline the complexity associated with the steps to facilitate high quality data receipt and to identify linkage rules deployed in the study.

4.1   Ancillary Extracts

The provision of extracted data files within the project was challenging as with the manual collection for participating hospitals. With eleven (11) distinct extracts required by each hospital initially and then an additional six (6) key extracts to cover Outpatient Booking (OP), Medical Imaging (RIS), Pathology (LIS), Pharmacy (PHARM), Allied Health (AH) and Patient Administration Systems (PAS) for subsequent months of the study, approximately one thousand two hundred and fifty (1,250) files were either uploaded through EY's secure Parcel Post or through NSW's secure file transfer facility.

Due to either local access to data files and or operational practices with the use of third party organisations for Pharmacy, Pathology and or Imaging Services not all participating organisations could provide all requested files. In some cases the patient level costed encounters were bereft of key patient attributable ancillary activity. Please see Costing Methodology (Section 3, Part A) for handling of hospitals where files were unavailable. Below is a summary of the files received within Tranche 1 to highlight the areas and extent to where patient attributable data was not received. In addition received data extracts by hospital can be seen within Appendix II.

Summary of data extracts received within Tranche1 and that subsequently affect Tranche 2 is provided in Table 4.1 below. Where the hospital indicated that the data was not available the denominator was reduced from the number of sites within the jurisdiction and the totals. For example 36 of 39 hospitals provided Imaging files with 4 of the 43 hospitals stating the extract was

unavailable. For Pathology 35 of 39 hospitals provided a pathology extract with 4 additional hospitals unable to provide the requested data.

Table 4-1 Summary of data extracts received vs the number required per jurisdiction

Jurisdiction	Outpatient Booking	Medical Imaging	Pathology	Pharmacy	Allied Health	PAS	Diagnostic/ Procedure	AN-SNAP
Northern Territory	2/2	2/2	2/2	0/2	2/2	2/2	0/2	Not available
Queensland	2/2	2/2	2/2	2/2	2/2	2/2	2/2	All received
South Australia	11/11	11/11	11/11	11/11	10/11	11/11	11/11	Sub set received
Victoria	1/1	2/2	1/2	1/2	1/2	1/2	0/2	All received
Western Australia	1/1	n/a	n/a	n/a	n/a	n/a	n/a	n/a
New South Wales	18/18	19/22	19/22	19/22	11/22	19/22	19/22	All received
Totals	36/36	36/39	35/39	32/39	26/39	35/39	32/39	4/5

Key patient attributable ancillary costs

This information was provided to the Steering Committee with a view to improving the submission rates for Tranche 2. Part of the difficulties encountered by hospitals in extracting the data related to the study timelines and the linkage rules adopted in the study.

Typically, linkage rules stipulate that an ancillary service provided 30 days either side of a non-admitted occasion of service (excluding any admission days) are deemed to be linked to the non-admitted encounter. The reporting timelines associated with the study created challenges to this and a 15 day window was used instead. This 15 day window was based on discussions with the Steering Committee and evidence supplied by Queensland that indicated that approximately 92% of all ancillary services relating to a non-admitted encounter fell within a 15 day window.

Tranche 2 extracts covered the full period of the study data collection plus a two week window. Improvements in the linkage process and number of extracts were observed. Tables 4.2 and 4.3 provide an overview of the number of non-admitted records and subacute admitted records respectively by site containing linked ancillary cost driver data for each of pathology, imaging and pharmacy services.

Table 4-2 Number of non-admitted records with linked ancillary services

| NHCDCID | Study Hospital Name | Non-admitted Dataset | | | | | |
		Number of Records	Number of Records with Imaging Services Linked	Number of records with Pathology Services linked	Number of records with pharmacy linked	Records linked: commencement date	Records linked: completion date
2BUL	Bulli	294	0	0	0	29/07/2013	6/09/2013
2CON	Concord Repatriation Hospital	752	11	111	45	5/08/2013	13/09/2013
2DUB	Dubbo Base Hospital	2,154	352	575	19	3/08/2013	13/09/2013
2JON	John Hunter Hospital	6,057	427	1068	178	5/08/2013	14/09/2013

NHCDCID	Study Hospital Name	Non-admitted Dataset					
		Number of Records	Number of Records with Imaging Services Linked	Number of records with Pathology Services linked	Number of records with pharmacy linked	Records linked: commencement date	Records linked: completion date
2LIS	Lismore Hospital	811	115	183	40	5/08/2013	13/09/2013
2LIV	Liverpool District Hospital	2,047	110	637	0	2/08/2013	19/09/2013
2NEP	Penrith DHS - Nepean Hospital	15,812	352	3483	816	5/08/2013	30/09/2013
2ORA	Orange Base Hospital	2,408	241	491	100	5/08/2013	13/09/2013
2PRN	Prince of Wales Hospital	20,551	135	487	122	21/07/2013	31/10/2013
2RHW	Royal Hospital for Women	5,162	24	1479	27	21/07/2013	31/10/2013
2RNH	Royal North Shore Hospital	2,307	361	466	20	22/07/2013	13/09/2013
2ROY	Royal Prince Alfred Hospital	2,925	126	1062	207	5/08/2013	13/09/2013
2SCH	Sydney Children's Hospital	445	38	54	17	19/08/2013	27/09/2013
2SGN	St. George Hospital	12,613	49	194	23	21/07/2013	31/10/2013
2SJH	St Joseph's	3,186	0	0	0	31/07/2013	18/09/2013
2SVP	St. Vincent's Hospital Darlinghurst/Sacred Heart	17,273	545	845	0	12/08/2013	3/10/2013
2SYD	Sydney/ Sydney Eye Hospital	12,105	517	189	612	2/08/2013	30/09/2013
2THE	Children's Hospital at Westmead	11,705	1034	1475	1164	5/08/2013	28/09/2013
2WMH	Westmead Hospital	34,533	2658	6300	2527	3/08/2013	30/09/2013
2WOL	Wollongong Hospital	1,981	94	428	16	29/07/2013	13/09/2013
3BND	Bendigo Health Care Group (Hospital)	9,589	229	0	46	22/07/2013	27/09/2013
4GEN	RBH Genetics	518	518	518	518	22/07/2013	30/08/2013
4RBH	Royal Brisbane & Women's Hospital	89,070	3225	8285	1714	21/07/2013	31/10/2013
4ROC	Rockhampton Base Hospital	10,704	1502	2381	401	22/07/2013	30/09/2013
5FLI	Flinders Medical Centre	36,683	4451	6935	2460	22/07/2013	30/09/2013
5GEN	Genetics Service SA	4,614	35	4614	18	19/08/2013	31/10/2013
5HRC	Hampstead Rehabilitation Centre	1,471	68	81	40	1/08/2013	27/09/2013
5LMH	Lyell McEwin Hospital	18,225	2520	4987	429	22/07/2013	11/10/2013
5MOD	Modbury Hospital	7,154	1243	1649	166	22/07/2013	11/10/2013
5MTG	Mt Gambier Health Service	3,806	225	592	168	29/07/2013	21/10/2013
5PTL	Port Lincoln Hospital	5,292	47	184	0	29/07/2013	30/09/2013
5RAH	Royal Adelaide Hospital	30,327	2483	6547	1437	22/07/2013	30/09/2013
5REP	Repatriation General Hospital	15,035	1607	1686	439	29/07/2013	27/09/2013
5TQE	Queen Elizabeth Hospital	7,828	589	765	23	22/07/2013	27/09/2013
5WCH	Women's and Children's Hospital	18,558	1548	4077	688	22/07/2013	4/10/2013
5WHY	Whyalla Hospital	6,519	97	452	87	29/07/2013	18/10/2013

| NHCDCID | Study Hospital Name | Non-admitted Dataset | | | | | |
		Number of Records	Number of Records with Imaging Services Linked	Number of records with Pathology Services linked	Number of records with pharmacy linked	Records linked: commencement date	Records linked: completion date
6INC	Inner City Community Mental Health	8,307	0	0	0	22/07/2013	30/09/2013
6JDN	Joondalup Community Mental Health	9,609	0	0	0	22/07/2013	30/09/2013
8ASH	Alice Springs Hospital	14,995	1358	2144	0	23/07/2013	30/10/2013
8RDH	Royal Darwin Hospital	7,464	772	1223	0	6/08/2013	30/10/2013
Total*		460,889	29,706	66,647	14,567		

It should be noted that not all records were expected to have a full suite of linked ancillary services. For example, community mental health patients were not expected to have an imaging service provided to them in the course of the study. As a result caution needs to be extended in drawing any inferences regarding the robust nature of the dataset based upon the proportion or number of records which have reported the use of ancillary services.

Table 4-3 Number of subacute admitted records with linked ancillary services

NHCDCID	Study Hospital Name	Subacute admitted Dataset					
		Number of Records	Number of Records with Imaging Services Linked	Number of records with Pathology Services linked	Number of records with pharmacy linked	Records linked: date commenced	Records linked: completion date
2BRA	Braeside	1,854	0	142	0	12/08/2013	14/09/2013
2DBE	David Berry Hospital	1,097	0	95	90	1/08/2013	13/09/2013
2JON	John Hunter Hospital	1,800	76	187	168	18/05/2013	13/09/2013
2LIV	Liverpool District Hospital	634	34	78	0	5/08/2013	13/09/2013
2ORA	Orange Base Hospital	535	32	125	70	13/08/2013	15/09/2013
2PRN	Prince of Wales Hospital	533	0	103	85	14/08/2013	12/09/2013
2RRH	Royal Rehabilitation	1,855	1	148	0	23/07/2013	13/09/2013
2SGN	St. George Hospital	909	3	192	130	5/08/2013	15/09/2013
2SJH	St Joseph's	2,741	32	63	0	1/08/2013	30/09/2013
2SVP	St. Vincent's Hospital - Darlinghurst/Sacred Heart	3,360	109	464	0	17/08/2013	13/10/2013
2WMH	Westmead Hospital	2,228	119	488	305	5/08/2013	15/09/2013
3BEU	The Alfred - Caulfield General Medical Centre	9,533	155	406	244	16/07/2013	29/09/2013
4RBH	Royal Brisbane & Women's Hospital	3,669	7	172	102	25/07/2013	18/10/2013
4ROC	Rockhampton Base Hospital	1,183	118	166	121	15/07/2013	11/09/2013
5HRC	Hampstead Rehabilitation Centre	4,046	107	399	941	1/08/2013	27/09/2013
5MOD	Modbury Hospital	3,575	248	516	51	20/07/2013	11/10/2013
5MTG	Mt Gambier Health Service	394	36	69	30	29/07/2013	18/10/2013
5REP	Repatriation General Hospital	7,092	385	728	373	5/08/2013	27/09/2013
5WCH	Women's and Children's Hospital	137	14	32	16	21/07/2013	2/10/2013
5WHY	Whyalla Hospital	115	9	25	8	27/08/2013	14/11/2013
8ASH	Alice Springs Hospital	1,134	25	67	0	29/07/2013	29/10/2013
8RDH	Royal Darwin Hospital	1,547	48	145	0	20/08/2013	21/10/2013
TOTAL*		49,971	1,558	4,810	2,734		

4.2   High Cost Consumables and Prosthetics

The identification of high cost consumables and prostheses by the participating sites also proved to be difficult. Participating sites were, in some instances, able to identify the list of high cost consumables and/or prostheses but unable to identify the costs associated with the products. In other instances, they were unable to identify a list of high cost consumables. In part some of this was attributed to the threshold set by the study. The threshold was set at any item greater than $50 being considered a high cost consumable or prosthetic. For many clinics no single consumable met this threshold. However, in some clinics, the routine use of a group of consumables that collectively totalled in excess of $120 for every patient was identified and listed as a high cost consumable. Thus, the practice of identifying and reporting high cost consumables varied across participating hospitals.

The overall reporting of high cost consumables and prosthetic costs represented a low volume of activity and costs. Accordingly, the attribution of costs was largely made on a per encounter or per bed day basis as outlined within the Costing Methodology (refer Section 3, Part A).

4.3   Supplementary Clinical Attributes

The collection of supplementary clinical attributes whilst not informing the attribution of costs may inform future classification development. Accordingly, indicators such as the:

- Palliative Care Outcomes Collaboration -PCOC

- Australian Rehabilitation Outcomes Centre - AROC

- Rockwood Frailty Index

- Mini Mental

were nominated by clinicians and jurisdictions informing the overall project design process. It was assumed that some of these measure(s), such as AROC and PCOC, were already routinely captured by the sites and could be extracted at the end of each month of data collection.

Of note, these supplementary attributes relate largely to the subacute and adult or older adult populations. They do not adequately account for, or apply to, the paediatric sites participating in the study. The nominated paediatric sites involved in the study were consulted to define appropriate paediatric based subacute outcomes measures to be collected during the course of the study. Discussion focused on the substitution from the adult based Functional Independence Measure (FIM) scores to the paediatric functional independence measure (Wee FIM) with other tools also considered.

The subacute form provided paediatric hospitals participating in the study to tick the box "paediatric specific indicator(s)" to alert the study team to the fact that relevant paediatric tool was being completed by staff participating in the study. This alerted the study team for the need to extract the relevant data from site based data management systems (if available) and to link this with the study record.

Further, sites with high Indigenous client activity indicated that they preferred to use the Kimberley Indigenous Cognitive Assessment (KIKA) tool instead of the mini-mental scoring instrument. This instrument is routinely used in the Northern Territory and amongst some of the Queensland sites and was to be provided to the study team at the conclusion of the study.

4.3.1   Rehabilitation Patients

Sites were requested to collect AROC data items for individual patients and forward this to the EY study team.

AROC data could be provided in any one of the following formats:

1. Direct request by the individual site to the University of Wollongong to supply the data direct to the EY study team

2. Extract the AROC data at patient level from site based systems and submit an electronic file to the EY study team

3. Request the state/territory jurisdiction to extract the AROC data and supply the information to the EY study team

4. Enter the AROC data into a study purpose built database and send an electronic copy of the database to the EY study team.

The AROC Impairment codes and a copy of the form are provided in Appendix GG.

4.3.2   Palliative Care Patients

Sites were requested to collect PCOC data items for individual patients and forward this to the EY study team.

PCOC data can be provided in any one of the following formats:

5. Direct request by the individual site to the University of Wollongong to supply the data direct to the EY study team

6. Extract the PCOC data at patient level from site based systems and submit an electronic file to the EY study team

7. Request the state/territory jurisdiction to extract the PCOC data and supply the information to the EY study team

8. Supply the EY study team with copies of the hard copy PCOC forms completed for each patient

9. Enter the PCOC data into a study purpose built database and send an electronic copy of the database to the EY study team.

A copy of the form is provided in Appendices V and W.

4.3.3   Geriatric Evaluation and Maintenance (GEM) and Psychogeriatric Patients

Clinicians involved in providing services to GEM patients have indicated that this study provided the opportunity to collect a number of characteristic variables that may help to further refine and inform classification development for this cohort of patients. Amongst the variables nominated are:

- Carer availability, carer residency and carer relationship to patient – all of which have been included on the Day of Admission to subacute ward form

- Rockwood Frailty Index

- Confusion Assessment Method

- Mini-mental State Examination.

For the purposes of this study, we requested that forms be completed on the day of admission to designated subacute GEM and psychogeriatric wards. Databases were created and provided to each subacute facility and jurisdiction. A copy of these forms can be found in Appendix X.

No further analyses have been conducted on these datasets.

4.4   Quality Validation Processes

A study of this importance necessitates the undertaking of quality validation processes throughout key stages of the data collection process in order to ensure the overall integrity of the dataset and to maintain confidence in the quality of the resultant outputs. A mix method of data quality assurance/ validation was undertaken. This included:

- Onsite review of the manual data collection forms prior to dispatch

- Scanning company producing error reports identifying records with no reported time, or negative time reported, or missing medical record numbers (MRNs)

- Onsite observations at the request of specific hospitals

- Identification of outlier records during linkage processes

- Financial checks in the derivation of the unit costs.

4.4.1 Onsite data form review

One of the functions of the Project Officer located on site was to manage the data collection process and to undertake spot checks of the data reported on the manual forms. New South Wales further supported this process, with members of the Ministry of Health team making themselves available for the quality sampling. This process was beneficial in identifying where further training on form completion was required.

4.4.2 Scanning Reports

Once critical mass had been achieved, the scanning facility began to provide the study team with routine reports that identified the number of records received, number scanned and any error records identified through the process. An example of the type of information provided is depicted in Table 4.4 below.

Table 4.4: Illustration of quality assurance report provided by OCR company

Summary Week Ending XX/XX/13	Total	Last Week	This week
Total Scanned	61,400	60,200	1,200
Total Keyed	61,351	60,155	1,196
Total Error Flags	260	260	0
Total Missing MRNs	246	246	0

This information was used to identify if additional training or instruction needed to be provided to specific clinics or wards or staff categories by respective hospitals. In some instances missing MRNs corresponded to group sessions and modifications were made to the dataset to enable this capture to go through as a valid entry rather than as an error.

4.4.3 Onsite visits and observations

Within the data collection period, preliminary summary statistics were provided to sites. On review of this data some hospitals requested a member of the study team visit the participating hospital. The visit was to discuss the preliminary data and to validate, through observation compliance with the recording of key data elements across a sample of healthcare providers.

The following is offered as a case study in describing some of the concerns initially raised with the summary statistics issued to some sites.

Preliminary data for a site reporting subacute admitted data indicated a very low average direct time by senior medical staff which raised concerns about compliance in data reporting. When investigated further the following evidence was documented:

- At this particular site, senior medical staff undertook ward rounds either once or twice a week.

- The ward round typically lasted up to an hour and a half (90 minutes)

- A ward typically covered 30 beds

- The ward was 100% occupied during the study period

- If the senior medical staff attended in a week for 90 minutes then across the 210 bed-days that week (30 x 7) the average time allocated would be reported in the summary statistics as 0.42minutes.

Whilst as a broad statistic the presentation of this information was valid, assurances were provided that the time reported by the senior medical staff specific to each patient was recorded and used for cost allocation purposes. The lesson learnt related to the fact that caution needed to be extended in how the summary statistics were interpreted. Some explanatory notes accompanying the data would have been of benefit.

The site was reassured that based on the above, compliance with data reporting was being maintained.

A few sites requested on site observations be undertaken to gain confidence in the accuracy of reporting by participating staff. A direct and indirect time sampling tool was developed. The data recorded through this process was then compared to the time based data recorded by the respective healthcare providers to determine consistency of recording and reporting. This process was conducted at both Queensland sites and one of the Victorian sites with strong correlation found between the time observed and that reported on the forms and with the average minutes reported through the broader site specific OCR data. NSW, WA, SA and the NT declined to participate in this "third level QA" process. Reasons given for not pursuing this form of data validation included:

- a similar activity was performed internally with satisfactory results

- concern that this activity may have been viewed as intrusive by clinicians.

4.4.4   Data quality processes involved in the linkages

Notwithstanding the scanning facility edit checks, an independent set of checks were also applied by the study team responsible for the construct of the study datasets and databases. The OCR data was validated for completeness and accuracy which included but was not limited to;

a)   Patient identifier present

b)   Hospital identifier present

c)   Clinic or ward identifier present

d)   Date present

e)   Time allocation made.

Where required all non-conforming or un-linked form batches were reviewed and corrected if possible.

Ancillary files (LIS, RIS, PHARM, AH) were reviewed for their completeness and the ability to link through MRN, URN and or unique identifier. The file was also reviewed and checked off in regards to content from:

a.   The right file

b.   Correct hospital identified

c.   Correct dates and

d.   Exam/test name within same structure as the provided lookup files.

PAS and non-admitted booking files were reviewed with all leading zeros, date variants and or site specific configurations removed to enhance linking. Linking percentages were subsequently run and as required enhancements were made.

Ancillary files were linked to the OCR forms, PAS and non-admitted data. Linking percentages run and as required enhancements made to improve linking and or Lookup files. Codes and lookups and visual reviews of both OCR data and Lookup tables were undertaken to increase matching. Where supplied files were corrupt or contained insufficient or incorrect fields, replacement files were requested from the relevant hospital. These were not always supplied.

Consumable & Prosthetics codes identified within the OCR forms were linked to the available look up files. Linking percentages and unlinked occurrences by hospital were reviewed during the staging processes for this component of the costing. Enhancements were made to improve linking and or lookup files wherever possible. Some hospitals were unable to provide the required costs or

code lookups to the consultants and in these cases, consumable costs were spread uniformly over the relevant patient activity.

4.4.5   Financial Checks

It is important to recognise that with hospitals only reporting partially on non-admitted or subacute admitted activity, a comprehensive financial reconciliation could not be achieved. Some checks were undertaken and related to:

- Ensuring the product fractions aligned with reported data from the hospital

- Cross referencing that the product fractions aligned with data reported in Round 16 NHCDC returns where available

- Re-engineering the unit costs derived for each product and ensuring that the resultant amount did not exceed the original amount contained in the general ledger (GL)

- Benchmarking the unit costs across the participating hospitals to identify outliers.

As not all sites provided 12/13 financial data, indexation was applied at the rate of 1.051% (based on IHPA standards). The indexation was applied to the unit costs derived for each cost bucket and was independent of the financial checks performed in the derivation of cost bucket costs.

The following table identifies which sites required the application of an index and the nature of financial edits and cross checks undertaken during the derivation of the individual unit costs per cost bucket.

Table 4-4 Summary of financial edits, cross checks and the application of an index by participating jurisdiction and or site

State	Hospital	Data Source	Derivation of Unit Cost	Edit Checks	Other Information
NSW	All Sites	Site specific costed file 2011/12	- Filtered on program type, area code type, cost centre to isolate non-admitted costs - Unit cost per encounter determined based on annual volumes - Average time by staff category derived from OCR returns used to establish unit cost per minute	Inter site comparisons to identify significant variations	Checked non-admitted and subacute admitted total cost pools as proportion of total hospital expenditure as check on filtering process
SA	All Sites	Site specific costs via GL costed file linked to outpatient fraction file 2012/13 RAH GL 2011/12	- Filtered final cost centres with zero outpatient fraction - Applied non-admitted fraction to overhead cost centres - Mapped line items to cost buckets - Derived average cost per client encounter based on annual volumes - Applied average time by staff category derived from OCR returns used to establish unit cost per minute	Inter site comparisons to identify significant variations	Checked non-admitted and subacute admitted total cost pools as proportion of total hospital expenditure
VIC	All sites	Site specific costed file BND extract 2011/12	- Average cost per client encounter based on actual annual utilisation data - Applied average time by staff category derived from OCR returns used to establish unit cost per minute	Summed back to total non-admitted cost pool identified by hospital Summed back to total subacute admitted cost pool identified by hospital	
WA	All sites	Cost report 2012/13	- Overhead costs identified by site in cost report - Average cost per client encounter based on annual volume - Applied average time by staff category derived from OCR returns	Summed back to total cost report for each site	Both sites 100% non-admitted services

State	Hospital	Data Source	Derivation of Unit Cost	Edit Checks	Other Information
			used to establish unit cost per minute		
NT	All sites	Site specific expenditure 12/13	• Filtered on Cost Area, Line Item, Item Code • Applied NHCDC Rd 16 outpatient fraction to overhead cost centres • Derived average cost per client encounter based on annual volume • Applied average time by staff category derived from OCR returns used to establish unit cost per minute •	Checked against NHCDC Rd 16	Checked against non-admitted and subacute admitted total cost pools as proportion of total hospital expenditure
QLD	All sites	Site specific outpatient costed file 2012/13	• Average cost per client encounter calculated for each cost bucket based on annual volume • Applied average time by staff category derived from OCR returns used to establish unit cost per minute	Checked against NHCDC	Summed back to total non-admitted cost pool identified by hospital

The next section (Part B) of the report outlines the processes employed in the design of the overall study and describes how the study was implemented.

Part B: Study Approach

This section provides an overview of how the study was conducted. It introduces the study, the design of the collection methodology, collection instruments and the collection process itself. Detail on participant engagement, supporting tools and study reference materials are also discussed including lessons learnt.

1.   Introduction

1.1   Background

The Independent Hospital Pricing Authority (IHPA) commissioned this data collection in April 2013 (the study). The non-admitted and subacute admitted costing study was designed to collect data prospectively from a representative set of public hospitals across the country. The aim of the study was to produce a dataset that would supplement and inform the Round 16 national costing data for these two product types, as well as informing future classification development.

This report has been prepared for the greater Australian health community, IHPA and the sites that participated in the national non-admitted and subacute admitted costing study to provide an overview of the study design, data collection methods, participation rates and characteristics of the resultant datasets. It provides insight to undertaking such a large scale and ambitious study, yielded learnings and will inform future comparable studies.

The calculation of price weights for the non-admitted and subacute products is the remit of the IHPA and as such, this report does not present any price weight or unit cost data. However, the study has yielded a range of benefits and data for hospitals undertaking patient, clinical, cost modelling of non-admitted and subacute admitted services, such as:

- Potential service weights for medical, nursing and allied health services for tier 2 clinics both for individual and group encounters

- Potential service weights for medical, nursing and allied health services for subacute admitted class type

- Data that can be used to identify whether there are substantial cost differentials occurring on a per diem basis by subacute class type.

In the conduct of the study, data specifications were developed and documented in a study reference manual (Reference guide). It is not the intent to replicate this within this report. Readers are encouraged to refer to this document and the study Engagement Framework both attached as appendices (Appendix EE and FF) for more detailed information if required. References to the study manual are however also made throughout the report to guide the reader. Further, to ensure consistency with broader national costing processes, this document also makes reference to existing data specifications, minimum datasets and costing standards that underpin the collection of the national costing data.

1.2   Objective of the National Non-admitted and Subacute admitted Costing Study

The costing study objective was to undertake a comprehensive costing of non-admitted and subacute services resulting in the collection of a definitive baseline dataset of patient level cost data which can be used for several purposes, including:

- Producing costs

- Price and service weights

- Development of current and future classifications

- To inform the development of new costing standards to assist hospitals with future costing.

The study reported to a Steering Committee with representation from most jurisdictions. The composition of the Steering Committee are specified in Appendix D.

1.3   Costing Study Scope

The services within scope of the costing study were defined to be:

- Non-admitted services: all services provided outside of the admitted and emergency department setting including but not limited to outpatients, community health, subacute and outreach.

- Subacute admitted services: subacute patients in the admitted setting (note: non-admitted subacute patients are included in non-admitted services)

1.4 Participation

The data collection covered multiple hospitals across the country and included representation from relevant peer groups (covering tertiary, specialist, regional and rural hospitals) as well as tier 2 non-admitted classes and subacute admitted classes.

The original study premise was that if a hospital participated in the non-admitted study they would enrol all of the non-admitted services offered within their organisation and the study would involve collecting data from approximately fifteen sites across the country. A set of eligibility criteria was developed by the study team to guide the hospital selection processes. These are detailed in Table 1.1 overleaf.

Table 1-1 Hospital Eligibility Criteria

Service	Criteria

Non-admitted services	1. Are from Peer A, B and C's Groups
	
	2. Have the ability to collect patient level data that includes, but not limited to:
	
	  • Patient demographics (age, location, sex, etc.)
	  • Tier 2 clinic information
	  • Clinician information
	  • Setting (hospital, community, patient's home etc.)
	  • Single vs. group
	  • Single vs. multidisciplinary
	  • Other clinical information e.g. diagnosis and/or procedure
	
	3. Provide a range of non-admitted services in various settings
	
	4. Provide a range of service types including acute, subacute, paediatric and mental health
	
	5. May provide specialised state wide services in low volume high cost impairment types e.g. spinal cord injury, brain injury and burns
	
	6. Have the ability to isolate costs to non-admitted services
	
	Note: the entire study should achieve this distribution and a single hospital does not need to do all these activities to be included

Subacute admitted services	1. Are from Peer A, B, C and F Groups
	
	2. Have the ability to collect patient level data that includes, but not limited to:
	
	  • Patient demographics (age, location, sex etc.)
	  • Collection of subacute clinical assessment tools
	  • AN-SNAP variables and class
	
	3. Provide a variety of subacute care services (rehabilitation, palliative care, psychogeriatric, Geriatric Evaluation and Management, maintenance and paediatric patients)
	
	4. Provide standalone or integrated service
	
	5. May provide specialised state wide services in low volume high cost impairment types e.g. spinal cord injury, brain injury and burns
	
	6. Have the ability to isolate costs to subacute services

List of participating hospitals by jurisdictions is provided in Table 1.2 below.

Table 1-2 List of participating hospitals

State / Territory	Participating Site	Coverage	
		Non-admitted	Subacute admitted
New South Wales	Concord Repatriation Hospital		X
	John Hunter Hospital	X	X
	Orange Base Hospital	X	X
	Prince of Wales Hospital	X	X
	St. George Hospital	X	X
	St. Vincent's Hospital - Darlinghurst	X	X
	Westmead Hospital	X	X
	Children's Hospital at Westmead	X	
	Dubbo Base Hospital	X	X
	Lismore Hospital	X	
	Liverpool District Hospital	X	X
	Penrith DHS - Nepean Hospital	X	
	Royal Hospital for Women	X	
	Royal North Shore Hospital	X	
	Royal Prince Alfred Hospital	X	
	Sydney Children's Hospital	X	
	Sydney/ Sydney Eye Hospital	X	
	Bulli Hospital	X	
	Wollongong Hospital	X	X
	David Berry Hospital		X
	Royal Rehabilitation		X
	St Joseph's		X
	Sacred Heart		X
Northern Territory	Alice Springs Hospital	X	X
	Royal Darwin Hospital	X	X
Queensland	Rockhampton Base Hospital	X	X
	Royal Brisbane & Women's Hospital	X	X
South Australia	Flinders Medical Centre	X	
	Hampstead Rehabilitation Centre	X	X
	Lyell McEwin Hospital	X	
	Modbury Hospital	X	X
	Mt Gambier Health Service	X	X
	Hampstead Hospital	X	X
	Queen Elizabeth Hospital	X	
	Repatriation General Hospital	X	X
	Royal Adelaide Hospital	X	
	Port Lincoln Hospital	X	X
	Whyalla Hospital	X	X
	Women's and Children's Hospital	X	X
Victoria	Bendigo Health Care Group	X	
	The Alfred - Caulfield General		X
Western Australia	Joondalup Community Mental Health	X	
	Inner City Community Mental Health	X	

1.5   Timelines

The original timelines as set out by the Steering Committee and within the Request for Tender indicated an onsite data collection start date of 10 June, 2013 running through to the week of 30 August, 2013 providing 12 weeks of patient data to produce a patient level costed file by 16 September, 2013.

A number of logistical issues emerged giving cause to adjust this timeline including:

- delays associated with site participation agreements

- delays associated with gaining ethics approvals required by the study

- changes to nominated facilities

- delays in recruiting onsite Project Officers

- onsite engagement issues and delays.

These factors resulted in many sites not commencing data collection until mid to late July. In addition New South Wales opted for a pilot approach with the majority of their sites scheduled to commence data collection on 5 August, 2013.

As a result, the study reported in two distinct tranches. The first data tranche was provided to IHPA and included a costed patient level file incorporating data collected up to 30 August, 2013 for use in FY14/15 NEP development. The second file (referred to as the Tranche 2 dataset) represented a cumulative file consisting of all data captured up until 31 October, 2013. This was provided to IHPA on 9 December 2013 and further updated in March, 2014.

2. Sampling Framework

Prior to commencing data collection, estimates of the volume of records required to ensure that the study would yield a representative sample were calculated. This also informed the hospital selection process and the range of non-admitted services and subacute admitted services respective participating sites would need to cover. The following outlines the assumptions underpinning the derivation of record estimates required for the non-admitted services costing and subacute admitted services costing datasets respectively.

2.1   Sampling Assumptions – Non-admitted services

To estimate the likely non-admitted sample available through the survey a number of assumptions were made. They included provision for:

- a staggered start with a number of hospitals initiating data collection in the week starting 21 July

- all sites would contribute 12 weeks of data.

The projected sample size was calculated allowing for:

- "ramping" during the first few weeks the weekly volumes for the hospitals other than New South Wales based facilities being reduced by 60%, 30% and 10% over the first three weeks of the study and for the New South Wales sites reduced by 20% and 10% for the first 2 weeks of their survey

- anticipation that a loss of momentum at the end of the 12 week data collection period, a reduction of 10%, 25% and 50% was also applied to the last three weeks of all participating sites anticipated volumes.

Based on the non-admitted activity volumes recorded in the hospital establishment data and adjusted by the above factors and taking into account the range of clinics covered by the respective participating hospitals a sample size was able to be calculated by Tier 2 clinic.

Using the cost variances of the 1998 national outpatient costing study which showed an average coefficient of variation of approximately 90%, the sample size required to deliver a 10% confidence interval on the mean cost was estimated to be approximately 350 cases per clinic. In constructing the anticipated sample, those clinics expected to have low volumes and not supporting this tolerance expectation were also identified (refer Figure 6.1 overleaf).

A number of these flagged low volume clinics represent low national volumes or at the time of constructing the sample were considered to be relatively new in Tier 2 and yet to be appropriately recorded against the national classification. Others related to imaging examinations that are not separately counted but bundled with the primary outpatient attendance that generated the exam request. The project sample size expected to be generated over the 12 week period for the non-admitted dataset was estimated to contain 500,202 records.

Figure 2-1 Projected non-admitted sample sizes for Tranches 1 and 2

Category	Clinic Code	Clinic Name	TOTAL 6 Weeks	10% contingency	20% contingency	TOTAL 12 Weeks (Including NEP Setting)	10% contingency (including NEP Setting)	20% contingency (including NEP Setting)	Flag for Low Volume
		TOTAL	**280,562**	**252,506**	**224,450**	**500,202**	**450,182**	**400,161**	
Procedures	1001	Hyperbaric Medicine	1,395	1,255	1,116	1,839	1,655	1,471	*imaging
	1002	Interventional Imaging	62	56	50	107	97	86	*imaging
	1003	Minor Surgical	533	480	426	1,053	948	842	
	1004	Dental	1,244	1,120	995	2,281	2,053	1,825	
	1005	Angioplasty/Angiography	86	77	69	86	77	69	
	1006	Endoscopy - Gastrointestinal	848	763	678	1,599	1,439	1,279	
	1007	Endoscopy - Urological/Gynaecological	805	725	644	1,508	1,357	1,207	
	1008	Endoscopy - Orthopaedic	168	151	135	342	307	273	
	1009	Endoscopy - Respiratory/ENT	325	292	260	431	388	345	
	1010	Renal Dialysis	1,087	978	870	1,717	1,545	1,373	
	1011	Medical Oncology (Treatment)	5,848	5,263	4,678	11,514	10,363	9,211	
	1012	Radiation Oncology (Treatment)	9,342	8,408	7,474	18,842	16,958	15,074	
	1013	Minor Medical Procedures	1,657	1,492	1,326	3,105	2,795	2,484	
	1014	Pain Management Interventions	24	22	20	39	35	31	
	1015	AH/Clinical Nurse Specialist Interventions	200	180	160	406	365	325	LOW
Medical Consultation	2001	Transplants	3,267	2,941	2,614	5,386	4,848	4,309	
	2002	Anaesthetics	4,793	4,314	3,835	9,730	8,757	7,784	
	2003	Pain Management	1,574	1,416	1,259	2,783	2,505	2,227	
	2004	Developmental Disabilities	738	664	590	1,010	909	808	
	2005	General Medicine	3,363	3,027	2,690	6,711	6,040	5,369	
	2006	General Practice and Primary Care	937	843	749	1,019	917	815	
	2007	General Surgery	7,142	6,428	5,714	13,740	12,366	10,992	
	2008	Genetics	1,240	1,116	992	1,352	1,217	1,082	
	2009	Geriatric Medicine	1,062	956	850	1,683	1,514	1,346	
	2010	Haematology	5,834	5,250	4,667	10,668	9,601	8,534	
	2011	Paediatric Medicine	4,064	3,658	3,252	7,624	6,861	6,099	
	2012	Paediatric Surgery	791	712	633	1,474	1,326	1,179	
	2013	Palliative Care	2,326	2,093	1,861	4,701	4,231	3,761	
	2014	Epilepsy	278	250	222	410	369	328	
	2015	Neurology	3,600	3,240	2,880	6,438	5,794	5,150	
	2016	Neurosurgery	1,701	1,530	1,360	2,919	2,627	2,335	
	2017	Ophthalmology	15,462	13,915	12,369	26,353	23,718	21,082	
	2018	Ear	4,250	3,825	3,400	7,733	6,959	6,186	
	2019	Respiratory	3,786	3,407	3,028	7,096	6,387	5,677	
	2020	Respiratory - Cystic Fibrosis	463	416	370	667	601	534	
	2021	Anti-coagulant Screening and Management	104	94	83	104	94	83	
	2022	Cardiology	4,791	4,312	3,833	8,582	7,724	6,865	
	2023	Cardiothoracic	219	197	175	400	360	320	
	2024	Vascular Surgery	2,496	2,247	1,997	4,773	4,296	3,818	
	2025	Gastroenterology	5,034	4,530	4,027	9,340	8,406	7,472	
	2026	Hepatobiliary	1,566	1,409	1,253	3,008	2,707	2,407	
	2027	Craniofacial	281	253	225	479	431	383	
	2028	Metabolic Bone	1,059	953	848	1,964	1,768	1,572	
	2029	Orthopaedics	15,367	13,830	12,294	25,408	22,867	20,327	
	2030	Rheumatology	3,041	2,737	2,433	5,755	5,179	4,604	
	2031	Spinal	964	868	771	1,344	1,210	1,075	
	2032	Breast	2,312	2,081	1,850	4,365	3,928	3,492	
	2033	Dermatology	3,810	3,429	3,048	7,094	6,385	5,675	
	2034	Endocrinology	4,641	4,177	3,713	8,042	7,238	6,434	
	2035	Nephrology	6,033	5,430	4,826	10,445	9,401	8,356	
	2036	Urology	3,682	3,314	2,946	6,944	6,249	5,555	
	2037	Psychiatry	5,227	4,704	4,181	9,641	8,677	7,713	
	2038	Assisted Reproductive Technology	2,433	2,190	1,947	3,431	3,088	2,745	
	2039	Gynaecology	5,621	5,059	4,497	10,823	9,741	8,659	
	2040	Gynaecology Oncology	790	711	632	1,333	1,199	1,066	
	2041	Obstetrics	11,981	10,783	9,585	20,260	18,234	16,208	
	2042	Immunology	1,230	1,107	984	2,028	1,825	1,622	
	2043	Medical Oncology (Consultation)	4,876	4,389	3,901	8,919	8,027	7,135	
	2044	Radiation Oncology (Consultation)	2,614	2,352	2,091	5,306	4,775	4,244	*imaging
	2045	Infectious Diseases	2,219	1,997	1,775	4,269	3,842	3,415	
	2046	Plastic and Reconstructive Surgery	2,036	1,832	1,629	4,132	3,719	3,306	
	2047	Rehabilitation	5,227	4,704	4,181	9,641	8,677	7,713	
	2048	Multidisciplinary Burns Clinic	2,433	2,190	1,947	3,431	3,088	2,745	
	2049	Geriatric Evaluation and Management (GEM)	380	342	304	709	638	567	LOW
	2050	Psychogeriatric	52	46	41	105	94	84	LOW
	2051	Sleep Disorders	21	19	17	43	38	34	
Stand-alone Diagnostic	3001	General Imaging	1,028	925	823	1,719	1,547	1,375	
	3002	Medical Resonance Imaging (MRI)	5,774	5,197	4,620	11,703	10,532	9,362	*imaging
	3003	Computerised tomography (CT)	257	231	206	257	231	206	*imaging
	3004	Nuclear Medicine	25	23	20	25	23	20	
	3005	Pathology (Microbiology)	0	0	0	0	0	0	*imaging
	3006	Positron emission tomography (PET)	0	0	0	1,618	1,456	1,295	*imaging
	3007	Mammography Screening	0	0	0	0	0	0	*imaging
	3008	Clinical Measurement	5,482	4,934	4,385	9,338	8,404	7,471	LOW
Allied Health and/or Clinical Nurse Specialist Intervention	4001	Aboriginal Health Clinic	184	166	148	184	166	148	
	4002	Aged Care Assessment	442	398	354	668	601	534	
	4003	Aids and Appliances	1,913	1,722	1,531	2,250	2,025	1,800	
	4004	Clinical Pharmacology	305	274	244	1,711	1,540	1,369	
	4005	Hydrotherapy	377	339	301	764	688	611	
	4006	Occupational Therapy	2,126	1,913	1,701	4,104	3,694	3,283	
	4007	Pre-Admission and Pre-Anaesthesia	4,213	3,792	3,370	7,528	6,775	6,022	
	4008	Primary Health Care	2,776	2,498	2,220	5,612	5,050	4,489	
	4009	Physiotherapy	10,052	9,047	8,041	19,734	17,760	15,787	
	4010	Sexual Health	450	405	360	458	412	366	
	4011	Social Work	797	717	637	1,089	980	871	
	4012	Rehabilitation	2,794	2,515	2,235	5,608	5,047	4,487	
	4013	Wound Management	1,617	1,455	1,293	2,519	2,267	2,015	
	4014	Neuropsychology	559	503	447	603	542	482	
	4015	Optometry	864	777	691	1,537	1,383	1,230	
	4016	Orthoptics	1,467	1,321	1,174	1,683	1,515	1,346	
	4017	Audiology	1,014	912	811	1,937	1,743	1,549	
	4018	Speech Pathology	1,340	1,206	1,072	2,488	2,239	1,990	
	4019	Asthma	76	69	61	155	139	124	
	4020	Chronic Obstructive Pulmonary (Disease)	27	24	22	55	49	44	
	4021	Cardiac Rehabilitation	1,541	1,387	1,233	2,831	2,548	2,265	
	4022	Stomal Therapy	325	293	260	559	503	447	
	4023	Nutrition/Dietetics	3,743	3,368	2,994	5,866	5,280	4,693	
	4024	Orthotics	305	274	244	618	557	495	
	4025	Podiatry	2,119	1,907	1,695	3,869	3,482	3,095	
	4026	Diabetes	742	667	593	1,505	1,355	1,204	
	4027	Family Planning	213	192	171	418	376	335	
	4028	Midwifery	12,470	11,223	9,976	23,834	21,451	19,067	
	4029	Psychology	510	459	408	905	815	724	
	4030	Alcohol and Other Drugs	16	14	13	16	14	13	LOW
	4031	Burns	2,088	1,879	1,670	2,893	2,603	2,314	
	4032	Continence	714	642	571	1,449	1,304	1,159	
	4033	General Counselling	6	6	5	6	6	5	LOW
	4034	Community Mental Health	12,762	11,486	10,210	25,566	23,010	20,453	
	4035	Cancer & Palliative Care Services	170	153	136	345	310	276	
	4038	Infectious Diseases	276	248	221	433	390	347	
	4039	Neurology	776	698	621	776	698	621	
	4040	Respiratory	295	265	236	355	320	284	
	4041	Gastroenterology	718	646	575	718	646	575	
	4042	Circulatory	276	248	221	276	248	221	
	4043	Hepatobiliary	136	122	109	136	122	109	
	4044	Orthopaedics	187	168	149	187	168	149	
	4045	Dermatology	555	499	444	555	499	444	
	4046	Endocrinology	490	441	392	546	491	437	
	4047	Nephrology	57	51	45	106	95	85	
	4048	Haematology and Immunology	963	867	771	963	867	771	
	4049	Gynaecology	42	38	33	42	38	33	LOW
	4050	Urology	514	462	411	514	463	411	LOW
	4051	Breast	25	22	20	25	22	20	LOW
	4052	Oncology	66	60	53	102	92	82	LOW
	4053	General Medicine	45	40	36	45	40	36	LOW
	4054	General Surgery	36	32	29	36	32	29	LOW
	4055	Paediatrics	1,542	1,388	1,234	1,696	1,527	1,357	LOW
	4056		0	0	0	0	0	0	
	4057		577	519	462	1,171	1,054	937	
	4058	Hospital avoidance programs	1,200	1,080	960	1,200	1,080	960	
	4059	Post Acute Care	314	282	251	637	573	510	
Specialist Intervention	5001	AH/Clinical Nurse Specialist Interventions	346	312	277	346	312	277	
	9998	Unclassified or not mapped	0	0	0	0	0	0	

National Non-admitted and Subacute Admitted Costing Study 2013

2.2 Sampling Assumptions – Subacute admitted services

To estimate the likely subacute admitted sample available through the survey a number of assumptions were made. They included provision for:

- a staggered start with a number of hospitals initiating data collection in the week starting 21 July

- all sites would contribute 12 weeks of data.

The subacute data collection was viewed as being less prone to ramping effects when compared to the non-admitted collection. The projected sample size was calculated allowing for:

- "ramping" during the first few weeks the weekly volumes for the hospitals other than New South Wales based facilities being reduced by 50%, 20% and 10% over the first three weeks of the study and for the New South Wales sites reduced by 50% and 40% for the first 2 weeks of their survey

- anticipation that a loss of momentum at the end of the 12 week data collection period, a reduction of 10%, 25% and 50% was also applied to the last three weeks of all participating sites anticipated volumes.

Based on the subacute admitted bed days recorded in the Hospital Establishment data and the information that was available from participating sites regarding their coverage of subacute wards, estimates were provided for each care type. Based on the construct of the study and the daily collection the estimates below were built by care type and bed day. The Steering Committee subsequently requested that the study team also capture activity by Australian National Subacute and Non-Acute Patient (AN-SNAP) class.

However, Using a sample size generator, using the Hospital Establishment data as the population size, allowing for a 10% confidence interval and a 95% confidence level the projected sample size required for each subacute class type has been estimated at around 100 bed days per class type. Figure 6.2 shows the expected bed days by clare type and flags the subacute classes expected to have low volumes which will not support this tolerance expectation

The project sample size expected to be generated over the 12 week period for the subacute admitted dataset was estimated to contain 51,837 records (where each record representing activities and services provided on a daily basis).

Figure 2-2 Projected subacute admitted sample sizes for Tranches 1 and 2

Description of Care Type	NEP Setting (6 weeks)			Analytics Database (12 weeks)		
		10%	20%		10%	20%
	TOTAL 6 Weeks	10% contingency	20% contingency	TOTAL 12 Weeks (Including NEP Setting)	10% contingency (including NEP Setting)	20% contingency (including NEP Setting)
	33,690	**30,321**	**26,952**	**51,837**	**46,654**	**41,470**
Rehabilitation Care	**25,030**	22,527	20,024	**36,938**	33,244	29,551
Palliative care	**3,410**	3,069	2,728	**4,786**	4,308	3,829
Geriatric evaluation and management	**1,965**	1,769	1,572	**3,989**	3,590	3,191
Psychogeriatric care	**1,415**	1,274	1,132	**2,328**	2,095	1,862
Maintenance care	**1,870**	1,683	1,496	**3,796**	3,416	3,037

3. Data collection design

3.1 Underlying hypothesis

In order to deliver a dataset to IHPA that would have the confidence of the jurisdictions and stakeholders, it was critical that cost variances represented actual differences in treatment costs rather than the methods used to derive those costs.

The adopted data collection approach was to ensure that information describing major cost drivers would form the mandatory data items required in the study.

The primary hypothesis underpinning the study design was that by collecting time based data, and attributing an appropriate unit cost to this time, variations in cost profiles within classes, between classes and across jurisdictions or sites would be transparent and better understood. Similarly, reviewing the type of ancillary services ordered and consumed by patients would improve the clarity in understanding differences in clinical treatment regimes within classes and across jurisdictions. This could help explain some of the variation in cost profiles identified in previous rounds of the National Hospital Cost Data Collection (NHCDC).

Further, given the desire to minimise any impost on organisations, the data collection design sought to collect cost driver information from locally held data sources such as pathology information management systems. Where this information was not readily available, but deemed to be critical to the costing process, manual data collection methods were designed.

3.2 Major cost drivers

The cost drivers for both non-admitted and subacute admitted services are similar and both are referenced in this section. The following are common cost drivers to both non-admitted and subacute admitted services:

- the time spent by clinicians providing services to patients, families and carers both direct and indirect time (refer to glossary for definitions)

- the type of ancillary services consumed by, or provided to the patient (such as pathology tests, imaging and diagnostic tests, pharmaceuticals, consumables, prostheses).

The major source of difference influencing the method of data collection between non-admitted and subacute admitted services was the unit of count. Specifically data were collected for the:

- non-admitted costing study focussing on patient level information recorded on an encounter basis

- subacute admitted costing study focussing on patient level information recorded on a per day basis.

3.3 Major elements to the study design

The following section summarises the key stages in the design and planning of the study, with Figure 3.1 providing a visual representation of these key elements. As previously referenced, the study began with the agreement on scope and the development of the criteria for participation. The study design then followed an approach that is characterised by the following five stages:

- Process design and development - this step included the design of the collection process, the development of the project tools, how participants would be assisted though the project and the business rules for each distinct study. These activities are detailed further in this chapter.

- Collection instrument design – this step included the design of the data collection process itself, the design and development of the manual collection forms, instructions on how to fill out the forms and the dataset specifications for these forms. Time and effort was also spent developing the data specifications for the required ancillary, financial data extracts, look up

and reference tables. The forms are described within this chapter, and definitions etc. can be found in the study reference manual.

- Hospital Mobilisation and Volume Confirmation – Conducted in parallel it was important to develop an engagement framework and support mechanisms to assist hospitals. At the same time as this support and confirming the degree of participation it was paramount to understand and determine if the dataset would be statistically representative and fulfil the requirements of the study. This was achieved through the development and use of a Sampling framework discussed further in Section 2 of Part B.

- Data collection, analysis and validation – A range of mechanisms were developed to monitor the inflow of data and the quality of those data. These included random checks of the comprehensiveness of the data reported on the manual data collection forms by site based project officers, through to reports presented by the company scanning the forms in terms of errors and unreadable forms. Other forms of quality controls were also implemented by the team, some at the request of specific sites and others related to the technical processes associated with linking multiple files and records. These are discussed further in Section 4.4, Part A where analysis on the data coverage is also described.

- Data Linkages and Costing – Once the data collection commenced, the study team was required to build databases to house the respective datasets. The process was complicated by the fact that data collection involved both electronic and manual data collections. The manual data collections were designed on customised forms able to be scanned using optical character recognition software. This is discussed further in Section 3.4. Where hospitals had access to electronic data that would support the overall costing process, they were encouraged to source these data and to provide them to the study team. Although specifications were drawn up for the extraction of these files, the submission of the files rarely matched the specifications and programming had to be undertaken to import fields into a standardised format. This is discussed further in Section 3 and 4 Part A.

  Unit cost data and extracts from general ledgers and patient costing systems were provided to the study team from which input costs were derived for each participating site for particular service categories (such as medical overhead costs, hotel services direct costs, etc.). The costing methodology adopted in the non-admitted and subacute admitted studies are described further in Section 3 Part A – Costing Methodology.

The steps above resulted in the successful collection of data that were then collated, merged and costed at the patient level. The process can be seen within the data collection process schema (Figure 7.1) on the next page.

In addition and to support these five stages outlined above, regular and structured reporting to both IHPA and the Steering Committee was undertaken. Reporting – throughout the study ongoing reporting to IHPA and the Steering Committee was maintained by the study team. Regular weekly meetings were held in which the overall progress of the study was monitored and emergent issues were addressed. This is outlined further in Part B Section 5.3 and 5.4.
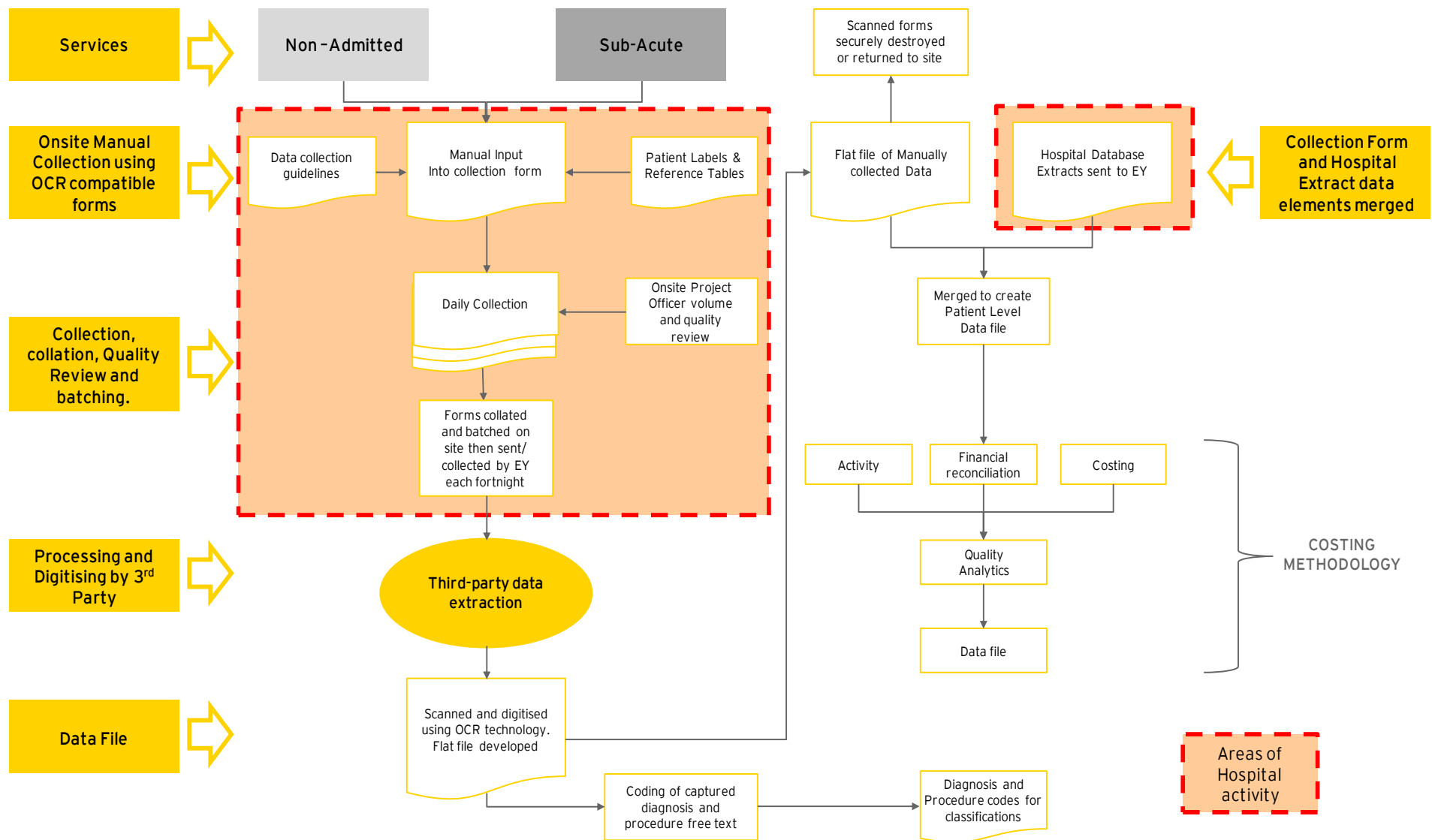
Figure 3-1 Overview of the overall study design phases

3.4   A multi-faceted method to data collection

The study comprised a multi-faceted data collection of over 500,000 service events across non-admitted and subacute admitted to understand direct and potential cost dependent variables. This data collection was done by capturing data through a manually completed form and through the extraction of system generated information. The later included both ancillary diagnostic information and where possible system generated clinician attributable time. The underlying premise in the construct of the database involved reducing the level of statistical "noise" contributing to artificial variability in cost attribution. Accordingly, the prescribed process focussed on collecting cost driver attributes such as;

- direct minutes of clinician time attributable to each event, and

- indirect minutes of clinician time attributed to each event

- classification description elements e.g. AN-SNAP classification and phase of care

There are few data collections in place that collect time based information for medical, nursing or allied health staff. During the initial design phase, consideration was given to utilising nurse dependency scores and information contained on nurse dependency systems as a method of allocating costs; however the ability to extract this information in any meaningful and consistent fashion limited the pursuit of this as a potential data source.

A number of sites however, were able to identify locally held databases that routinely captured the total amount of time (direct and indirect) provided by either a subset of clinicians or to a subset of clients. For example, one site indicated that they had a locally developed radiotherapy information system that routinely captured the amount of time spent by doctors with patients. An extract covering patient activity for the study period was then generated and provided by this site. Where similar data existed, sites were encouraged to supply data extracts to include in the study database.

In other instances, hospitals indicated that they routinely reported time based information associated with allied health professionals to a state based information management system. These data were extracted centrally and provided to the study team for the subset of participating hospitals using the specified system. Fifteen of the forty three (43) sites provided time based data electronically for a subset of services and they are listed below.

- John Hunter Hospital

- Prince of Wales Hospital

- Royal Hospital for Women

- St. George Hospital

- St Joseph's

- St. Vincent's Hospital - Darlinghurst/Sacred Heart

- Sydney/ Sydney Eye Hospital

- Children's Hospital at Westmead

- Royal Brisbane & Women's Hospital

- Rockhampton Base Hospital

- Flinders Medical Centre

- Hampstead Rehabilitation Centre

- Royal Adelaide Hospital

- Queen Elizabeth Hospital

- Inner City Community Mental Health

- Joondalup Community Mental Health

Even though these sites provided locally generated data extracts, manual data collection was also deployed by the hospitals listed above across those wards, or in specific non-admitted clinics where local information management systems were not in place or did not contain time based information. The manual data collection was based on a common data collection form for non-admitted services and one for subacute admitted services that could be electronically scanned using contemporary optical character recognition (OCR) technology. Appendix AA and Appendix BB depict the manual data collection forms deployed in the non-admitted and subacute admitted data collection respectively.

An external independent company (Datatime Services) was engaged to undertake the scanning functions, and as a result privacy and confidentiality undertakings had to be entered into.

3.5   Confidentiality and privacy

The ability to link records requires access to a unique identifier and the ability to identify the date on which the service was provided. The critical data items enabling this linking were the unique medical record number and the date of service provision or encounter. Collection of patient identifiable data within South Australia required an ethics approval processes. This process took time and involved multiple ethics approvals including site, LHN and state. The initial timelines governing the study did not anticipate for this process and provide an important lesson learnt.

Recognising the sensitivities associated with collecting medical record numbers, and that the manual forms would need to be transported to a third party for scanning, relevant site specific confidentiality undertakings were entered into by EY to ensure that each site was provided with the assurance that the data collected in the course of this study would be used only for the purposes stipulated in the Head Contract with IHPA and that the forms transfer process was undertaken using relevant and appropriate security measures.

As requested by the respective state or territory, confidentiality agreements were also entered into by the provider of the data scanning/ processing services Datatime Services Pty. Ltd.

In addition to the above privacy and confidentiality undertakings, each participating hospital was requested to provide either an email or document stating that their organisation had considered all relevant privacy rules and issues with regard to this project. A copy of the relevant undertaking is provided in Appendix K.

4. Collection Process

4.1 Collection Process – Non-admitted Services

This section provides detail on the data collection process and business rules used within the study. The specific data collection processes associated with the collection of non-admitted services is depicted in Figure 4.1.

Figure 4-1 Non-admitted services data collection process map
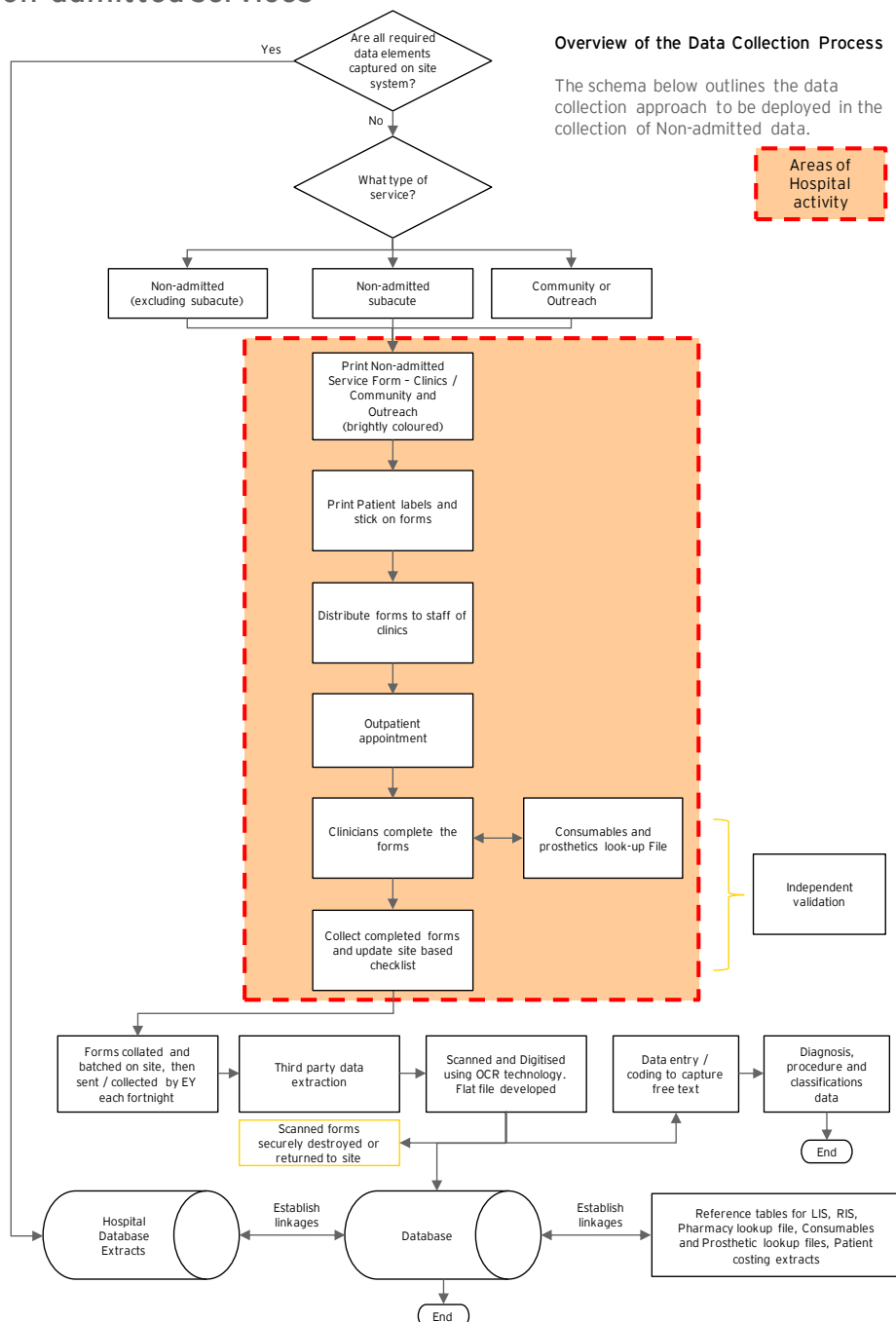
4.2 Collection Process – Subacute admitted services

This section provides detail on the data collection process and business rules used within the study. The specific data collection processes associated with the collection of subacute admitted services is depicted in Figure 4.2.

Figure 4-2 Subacute admitted services data collection process map

Subacute Admitted services
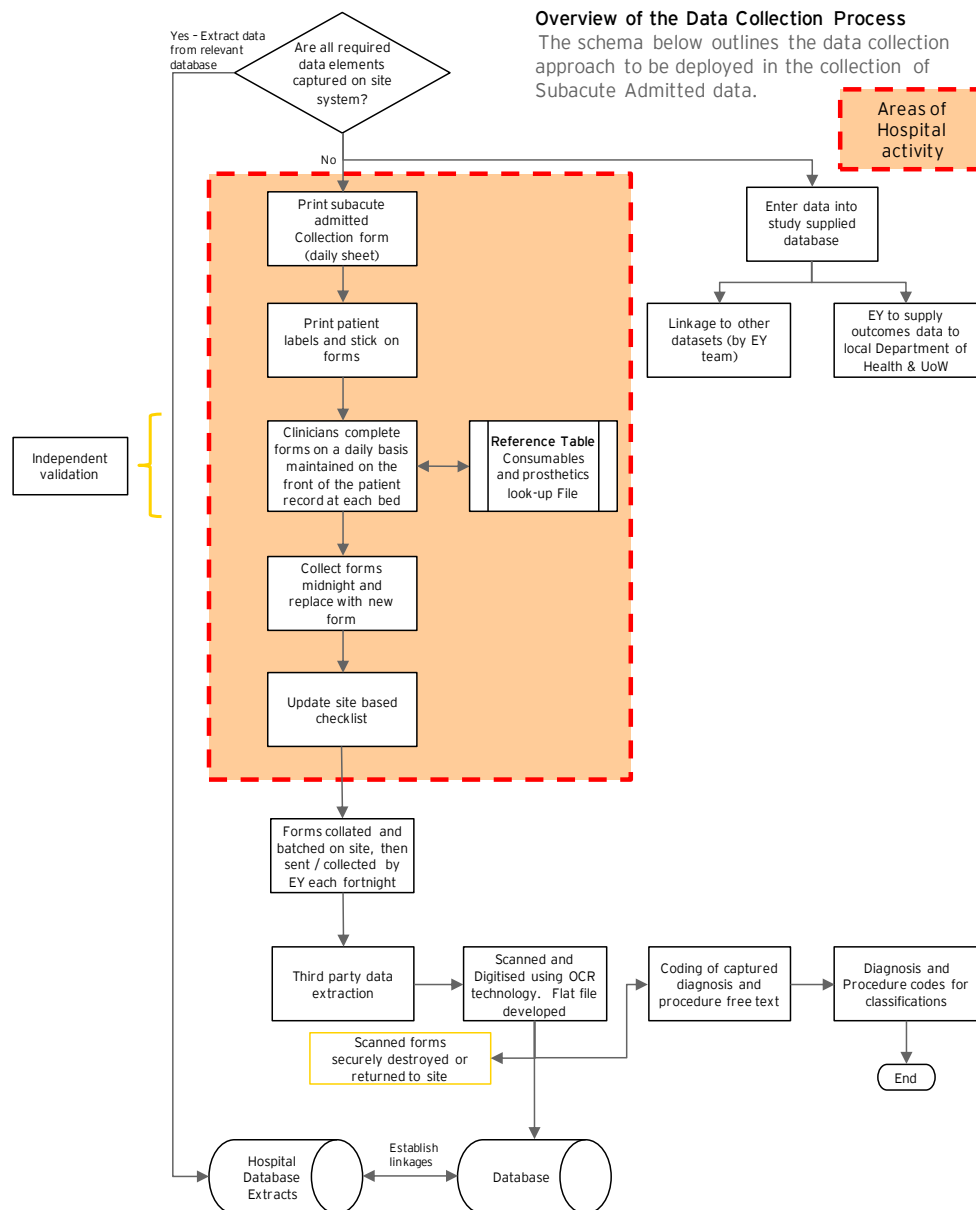
As with the non-admitted study the subacute admitted collection was grounded by business rules described in below.

4.3   Business Rules

Business rules and definitions employed by the Independent Hospital Pricing Authority and supported through national references such as the National Health Data Dictionary and the Australian Institute of Health and Welfare's (AIHW) Metadata Online Registry (METeOR) applied to the routinely captured data to be sourced from local or jurisdictionally based information management systems.

Where manual data collection was proposed, separate data definitions and dataset specifications were provided (refer to Appendix G & H and the study reference manual for further detail).

The business rules that applied to the collection of data for both the non-admitted and the subacute admitted costing study can be found as Appendix A & B. These rules were developed for the study by the team in consult with IHPA and signed off and approved by the Steering Committee.

5. Engagement Framework

Prior to data collection beginning on site an engagement framework was developed. The framework below outlines the interactions between the study team (EY team), Onsite Project Officers, clinicians involved in the study, Jurisdictional Representatives (Jurisdictional representatives on the Steering Committee) and IHPA. The diagram below (Figure 5.1) illustrates the support elements built into the project approach. There were five key elements:

- a detailed running sheet of pre collection and day of collection activities

- training

- communication

- issues resolution, and

- general project support.

Integral to the delivery of these elements were the Onsite Project Officers and the EY Jurisdictional Project Officers.

Each jurisdiction was assigned an EY jurisdictional support officer and a backup officer to provide support to the participating hospitals. This EY jurisdictional support officer acted as the key conduit between the EY study team and the Onsite Project Officer. This person developed open lines of communication, support mechanisms, training sessions and utilised the issue resolution process (detailed within this section at 5.4) to support the Onsite Project Officers and hence the hospital staff. The following pages will describe in detail the role of each party and the key engagement elements.

Figure 5-1 Non-admitted and subacute admitted costing study engagement framework
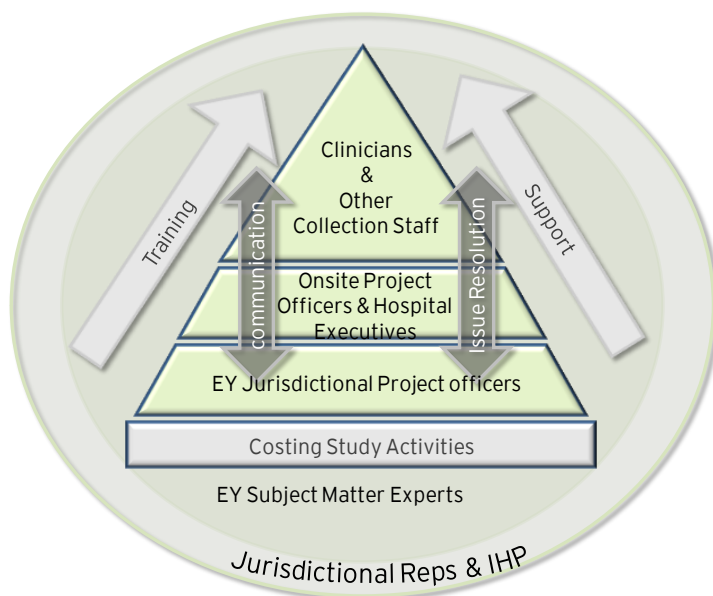
The expectations of the roles and responsibilities of the respective parties depicted in Figure 5.1 are contained in the study Engagement Framework document. The proceeding content within this section summarises some key themes and tools used to support participating hospitals and onsite project officers. A full copy of the Engagement Framework approved by IHPA and the Steering committee can be found as Appendix FF.

5.1 Training

Three or more training or learning workshops were scheduled for participants at each site to ensure that staff participating in the site collections, Onsite Project Officers and Jurisdiction representatives fully understood what was expected during the study period. This included how to

prepare and distribute the forms, how to complete the forms and what to do with the forms after completion.

The steps involved in providing the training are outlined below.

5.1.1 Introductory call to site designated Project Officer & Hospital Executive

The purpose of this call was to introduce the EY team, provide a project overview and discuss the costing study collection process, collection mechanics, timelines, study resources and answer any initial questions that Onsite Project Officers and Hospital Executives may have had. In some cases this meeting was delivered face to face with the hospital executives and or in the case of NSW in a combined hospital participants workshop.

This meeting was also used as an opportunity to discuss any additional or outstanding data required e.g. clinic names and mapping to Tier 2, list of top 20 high cost consumables and prosthesis.

Additional support materials required were also discussed and provisioning of such support also agreed during this meeting.

Within this meeting we also arranged working sessions to draft specific collection process maps for extracted data and form completion and collection within both non-admitted clinics and admitted subacute wards.

5.1.2 Jurisdictional Workshop/briefing session outlining costing methodology and study approach with participating hospitals (centralised)

The purpose of this face to face workshop at a central location in each Jurisdiction was to further consolidate the initial training performed during the introductory call and address any questions or issues that may have arisen since the introductory call.

By the end of the session, Onsite Project Officers and Jurisdictional representatives had a clear understanding of the costing methodology and approach and what would be required of them prior, during and after the study.

5.1.3 Participating site briefings / training

A training workshop was conducted for each site by the EY Jurisdictional Officer and the Onsite Project Officer prior to the targeted go live date. These sessions principally focussed on engaging with the clinicians and staff involved in the site data collections. It also provided the opportunity to act as a refresher for the Onsite Project Officer.

Attendees were provided study overview information, information on collection methodology, shown how to complete the forms and how to deal with less routine time recording such as indirect patient attributable time. They were taken through reference tables and how these were to be used as well as the site specific process maps.

The benefits and value of the study was also covered.

5.2 Support

Support to participating sites was provided on several fronts.

5.2.1 Support provided by IHPA

In recognition of the importance of this study, and the commitment provided by staff in the participating hospitals to improve existing costing datasets and inform future classification development, IHPA provided funding to each jurisdiction and or participating hospital to support the backfill of the onsite Project Officer position. In addition IHPA provided multiple dedicated project resources to support both the program management but also support jurisdictional and hospital resources on an as needed basis.

5.2.2   EY state project support coordinators

Ernst and Young (EY) Jurisdictional Support Officers were available to provide support and assistance in the implementation of any given stage of the data collection process, particularly in relation to logistics (setting up collection form printing on site), data collection (queries relating to quality checks, questions regarding form completion, interpretation of data specifications, data extract fields from existing systems, etc.), or data collation and batching processes (queries on the use of batch headers and collation of completed forms).

5.2.3   Other support resources

5.2.3.1   Toolkit

Other support resources were also provided to Onsite Project Officers to assist them in the smooth running of the site data collection. These Toolkits were developed and shipped out to all forty-three (43) sites. The Toolkit included:

- PowerPoint presentation for the training sessions.

- Study promotional materials / templates e.g. flyers and messages that can be customised with minimal effort and displayed in staff tea rooms or in clinics and wards.

- A3 posters of forms including instructions

- Macros enabled printing instructions and tools to facilitate form printing by the Onsite Project Officer.

- Provision of collections bins and stationery

- Reference guides

- Engagement Strategy documents

- Frequently Asked Questions documents

- Initial shipping boxes

- Other required support as indicated during the introductory call to site designated Onsite Project Officer & Hospital Executive.

5.2.3.2   Project reference manual

A project reference manual was developed to described in detail the objectives of the study, the specifications and definitions of data items to be collected throughout the course of the study, the method of data collection, available support mechanisms, privacy and confidentiality undertakings etc. As a key initial study document this tool, upon approval was distributed to participating sites, and also included in the overall toolkit discussed in preceding pages. A copy of the Project reference Guide can be found as Appendix EE.

5.2.3.3   Other tools and resources

As outlined in the overall objectives of the study, the data collection sought to provide inputs into informing future classification development across both the non-admitted and subacute admitted product lines. Accordingly, whilst the focus of the study was on the collection of data that would drive cost attribution; the study also presented the opportunity to collect other data such as patient demographics (i.e. gender, Indigenous status, etc.) and information about outcomes or functional measures all of which could be considered from a classification development perspective.

The list of resources documented in Table 5.1 identifies some tools developed specifically for this component of the study. For example, a database was also provided to participating sites to input if they so choose, Supplementary Clinical Attributes collected specifically for subacute patients. This database was developed and distributed to each participating site. Those sites that held the

requisite data in local system elected not to make use of this database. Information about the coverage and utility of these data is discussed further in Sections 4 Part A.

Table 5-1 Set of resources and tools developed in the conduct of the study

Tools	Purpose	Cross Reference
Non-admitted data collection form	To collect major drivers of cost not routinely captured in existing information systems and characteristic variables that may inform classification development. Examples include: • Time spent with the patient by the doctor, nurse, allied health professional, multi-disciplinary team • Diagnosis • Procedure • High cost consumables used • High cost prosthetics used • Patient attributable indirect time	Refer to Chapter three in this report
Non-admitted dataset specification	A list of definitions and data specifications associated with each data item specified on the manual data collection form. A data specification file for the mapping of hospital specific non-admitted clinic codes and descriptors to the nationally endorsed Tier 2 non-admitted clinic codes. A list of definitions and data specifications associated with each data item specified for hospital/jurisdictional ICT system extracts.	Refer to Chapter three & Appendix D in this report
Subacute admitted data collection form	To collect major drivers of cost not routinely captured in existing information systems and characteristic variables that may inform classification development. Examples include: Time spent with the patient by the doctor, nurse, allied health professional Time spent on indirect patient attributable activities by the doctor nurse, allied health professional Frailty score for GEM patients Mini-mental state examination for cognitive function in subacute patients	Refer to Chapter six in this report
Subacute admitted dataset specification	A list of definitions and data specifications associated with each data item specified on the manual data collection form. A list of definitions and data specifications associated with each data item specified for hospital/jurisdictional ICT system extracts.	Refer to Chapter six and Appendix E in this report
Site checklist	To enable the onsite Project Officer to monitor operations of services and collection of forms. This form is site specific and identifies the clinics and other non-admitted services as well as designated subacute wards that were operating during the data collection period. This checklist will be used on a daily basis thereby providing the onsite Project Officer with a mechanism to ensure that forms from each participating service have been collected. The form is provided as a suggested checklist and is not mandated for use.	Refer to Chapter 8
AROC database	For sites that could not readily extract AROC data an access database was provided with form input screens mimicking the AROC data collection.	Refer to Appendix P
PCOC database	For sites that could not readily extract PCOC data an access database was provided with form input screens mimicking the PCOC data collection.	Refer to Appendix J
Rockwood Frailty Score	Sites participating in the subacute admitted study were supplied with copies of the Rockwood Frailty Score to be applied to Geriatric Evaluation and Maintenance (GEM) patients. A database was provided with form input screens mimicking the Rockwood Frailty Instrument to enable data entry to occur on site.	Refer to Appendix L
Confusion Assessment Method (CAM)	Sites participating in the subacute admitted study were supplied with copies of the CAM to be applied to Geriatric Evaluation and Maintenance (GEM) patients. A database was provided with form input screens mimicking the CAM Instrument to enable data entry to occur on site.	Refer to Appendix L
Mini-mental State Examination (MMSE)	Sites participating in the subacute admitted study were supplied with copies of the MMSE to be applied to Geriatric Evaluation and Maintenance (GEM) patients. A database was provided with form input screens mimicking the MMSE Instrument to enable data entry to occur on site.	Refer to Appendix L

Tools	Purpose	Cross Reference
Site collection toolkit	Sites participating in the study were provided with a comprehensive set of tools (toolkit) including: • PowerPoint presentation for the training sessions. • Study promotional materials / templates e.g. flyers and messages that can be customised with minimal effort and displayed in staff tea rooms or in clinics and wards. • A3 posters of forms including instructions • Macros enabled printing instructions and tools to facilitate form printing by the Onsite Project Officer. • Provision of collections bins and stationery • Consumable & Prosthetics Reference guides • Engagement Strategy documents • Frequently Asked Questions documents • Shipping boxes • Other required support as indicated during the introductory call to site designated Onsite Project Officer & Hospital Executive.	Sent to each participating site Project Officer

5.3 Communications

5.3.1 Standard Project Communication

Table 5.2 summarises the communications activities that occurred during the study to ensure that sites, Onsite Project Officers, Jurisdictional Representatives, the EY Team and IHPA were kept abreast of study progress, issues and resolutions.

Table 5-2 Communication activities undertaken during the study

Activity	Outcome	When	Audience	Communications vehicle	Responsibility
Study Helpline (manned 8AM – 6PM) for each Jurisdiction	• Dedicated mobile number per jurisdiction for timely response issues or questions from Onsite Project Officer and Jurisdictional representatives	Week commencing 24th Jun	• Onsite Project Officers • Jurisdictional representatives	Telephone & Email	• EY Jurisdictional Support Officer
Frequent calls to Onsite Project Officers	• Communication of successes and any significant issues by Onsite Project Officers their respective EY Team contact	Weekly at a minimum for the duration of the study (1st Jul – 30th Nov)	• Onsite Project Officers	Telephone conversation	• EY Jurisdictional Support Officer
Participating site progress update	• Communication of successes and any significant issues by EY Jurisdictional Support Officer	Fortnightly	• Site executives • Jurisdictional representatives • Onsite Project Officers • IHPA	Telephone	• EY Jurisdictional Support Officer • Onsite Project Officer
Weekly project team meeting	• Any issues arising during the study are discussed and addressed	Each for the duration of the study (1st Jul – 30th Nov)	• EY Team • IHPA	Teleconference	• EY Project Director
Progress Report	• To monitor the progress of the study against project plan. • To discuss and resolve any issues for consideration.	Twice Weekly	• IHPA	Email of project status workbook & Follow on meeting	• EY PMO and Project Director
Frequently Asked Questions (FAQs)	• Answers to FAQs communicated to stakeholders via website and emails to onsite project officers and steering group members	Weekly as required	• Project stakeholders including Jurisdictions, IHPA ABF related groups and committees and Onsite Project Officers	Email/ IHPA Website	• EY project team (Development and Updating) • IHPA (Posting on the website)

5.4 Issue resolution

Figure 5.1 depicts the process map developed and implemented to address emergent issues as they arose throughout the study period. A triaging method was adopted in formulating responses to emergent issues arising in the course of the data collection phase. The initial resolution of issues and questions was undertaken by the Onsite Project Officer and if those issues or questions could not be resolved at this level then it was escalated to the next level namely the EY Jurisdictional Officer.

Responses to commonly occurring issues were transcribed into a frequently answered questions document which was then loaded onto the IHPA website. This was updated on a regular basis early on in the data collection phase as new issues were raised. A copy of the 'Frequently Asked Questions' is attached as Appendix CC & DD.

An integral component of the Issues Resolution Process was the development of a process to include a sub- committee of the Steering Committee within this process. This sub-committee depicted within level 4 of the process flow depicted in Figure 5.1 supported and developed responses and solutions to questions that were escalated beyond Onsite Project Officers and EY Jurisdictional Officers. Standing weekly conference calls were scheduled and initiated when issues required this level of intervention.

All issues identified during the study period were either resolved by the Onsite Project Officer, the EY Jurisdictional Officer or the sub-committee. No issues identified through this process remained unresolved.

Figure 5-1 Issues resolution process map

Issue Resolution Process

3

Site Collection Staff 1

Start

Issues or questions involving:
- Form completion
- Form Collection
- Compliance with form completion
- Technical Costing
- Extract data
- Other data collection areas

Refer to Reference Guide and FAQs

Resolved
— Yes → End
— No →

Contact onsite Project Officer

Onsite Project Officer 2

Start

Issues or questions involving:
- Form Collection
- Form/ Batch Header printing
- Compliance with form completion
- Technical Costing
- Extract data
- Other data collection areas

Refer to Reference Guide and FAQs

Resolved
— Yes → End
— No →

Contact EY Jurisdictional Officer

Log issue on Standardised issue

Resolved
— Yes →
— No →

Advice site collection staff of resolution

End

EY Jurisdictional Officer 3

Resolved
— No →

Contact EY Subject Matter Experts

Resolved
— Yes →
— No →

Advice onsite project officer of resolution

End

Subject Matter Experts 4

Resolve escalated issue

Escalate to the IHPA and Steering Committee

6.   Key Conclusions

The results of this study have provided IHPA and the jurisdictions with a cost dataset which provides direct cost allocation to a level that has not previously been possible. This dataset can be used to understand the true underlying cost of treatment provided to both non-admitted and subacute admitted patients. It also contains encounter characteristics that can be used to support further classification development in these areas, and the time based data provides a national service weight reference table that can support local clinical costing until such time as individual patient costing can be achieved for non-admitted or subacute admitted patients.

Using the manual forms and time based outcomes as a foundation and the costing methodology the following average costs were derived.

- Within non-admitted services the average cost calculated per encounter was $257.29

- Results for subacute admitted services represented as an average per bed day for all care types is $719.53

Although successful, studies involving hospitals of the size and complexity embodied by this project need to embrace a degree of flexibility to insure relevant co-operation and participation is maintained, and to this extent the design, timelines and extent of participation will vary. To this same extent participation in these studies is voluntary so a delicate balance between structure and specifications of the project should be balanced with the resources and time requirements of the hospitals. To this end the product achieved has been as a result of hard work and the ability of all parties to be flexible and adapt to the required process variations, flexible timelines and in some instances the lack of data to accommodate the needs of all participants and jurisdictions.

As always, studies of this magnitude and complexity give rise to a range of learnings which can benefit future costing and classification work. Some of these learnings are listed below.

6.1   Lessons Learnt

It was noted earlier in the report the level of interest expressed by hospitals across the country exceeded the number that initially participated in the program. Our inability to initially recruit more sites to the study may have been influenced by the following factors and perceptions:

- The timelines as initially proposed were viewed by many hospitals as ambitious leaving limited lead-time to engage effectively with their clinicians.

- Many sites expressed a sense of feeling overwhelmed by the size of the study particularly if they had to involve all of their non-admitted clinics to a full 12 week data collection.

- The actual data collection period clashed with end of year and start of financial year activities and sites could not commit to providing the level of resources to the study.

- Lack of good information management systems to support the collection and a focus on manual data collection processes deterred some sites from participating.

As also discussed sufficient lead time needs to be allocated to allow for the pursuit of relevant ethical clearances, confidentiality and privacy undertakings. Time should be inbuilt into the overall study design phase for large scale projects of this nature. Typically a period of approximately 12 weeks should be allocated to this process alone, noting that the work involved in this can be undertaken concurrently with hospital recruitment activities and reference guide development.

Whilst IHPA did provide resources to the participating sites, and flexibility in terms of start dates, number of clinics participating and the duration of data collection were all introduced into the construct of the study, the feedback and learnings from the study in terms of design relate to the following four key ingredients:

- Timeframes need to be realistic, particularly allowing sufficient lead time to engage with clinicians and put in place the data collection methods, tools and mechanics necessary to support the study. A three to four month period is considered to be more practical.

- Flexibility needs to be inbuilt into the study, to enable cessation of data collection when sufficient volume of data has been achieved. Other forms of flexibility were also introduced, namely the ability to accept data from local information management systems.

- Having noted the need for flexibility, this does need to be balanced with the impact this has upon the overall quality of the data, the ability to report consistently and comprehensively on key or mandatory data items and the time required to standardise the submitted data into a common study format. All of which are discussed further in subsequent sections of this report but can't be over emphasised when reviewing results and the integrity of the study.

- Scheduling of the data collection should seek to avoid those months associated with end and start of financial years.

- Understanding that decisions made at the participant level can affect study outcomes from a volume and integrity of information perspective. Self selection of clinic and ward participants and decisions to only provide one source of medical record number on forms have led to a reduced valid sample size.

The National Non-admitted and Subacute admitted Costing Study has been a challenging endeavour. It has been a long but necessary journey that has provided learning and lessons for all participants. No matter how arduous, the study has gone a long way to provide insight into and explain cost variances in both non-admitted and subacute admitted activity seen in NHCDC studies. Although containing possible identified gaps in diagnostic and supply consumption the large sample still provides a rich valuable dataset. The study provided over 560,000 costed and classification intensive records that can be trimmed, smoothed, analysed and used to;

- Produce costs, price and service weights,

- Inform the development of current and future classifications, and

- Inform the refinement of the national costing standards.

therefore meeting its objectives whilst also designing an approach and reusable resources for future bottoms up patient level cost data studies.

Appendix A   Business rules non-admitted

Business Rule Number	Business Rule Description	Reference
1	Where there is a mix of medical specialists and allied health/clinical nurse specialists (CNS) in the one operational clinic for a specific service, this clinic will map to the Tier 2 medical clinic for that service. In medical consultation/procedural/ diagnostic clinics, it is assumed that there may also be input from allied health/CNS personnel.	Tier 2 mapping business rules
2	Spontaneous consultations provided by a medical specialist to an allied health/clinical nurse specialist led operational clinic should not result in a reassignment to a Tier 2 medical consultation clinic. These services should be categorised to the relevant Tier 2 clinic in category 4, Allied Health &/or Clinical Nurse Specialist Interventions.	IHPA Tier 2 Outpatient Clinic Definitions, Version 2.0 dated 25/02/2013
3	Where there are allied health/CNS professionals providing the service in the operational clinic, the clinic should be categorised to the appropriate allied health/CNS Tier 2 clinic.	
4	Where a clinic is a combination of two or more disciplines (e.g. a Respiratory Cancer clinic), use the "50% or more" rule to determine which clinic a service event is to be reported against, using the usual provider as the criterion. For example, if 60% of the clinic's activity is performed by a respiratory specialist, all service events performed by the clinic should be reported under 20.19 Respiratory.	
5	Specialist paediatric operational clinics in specialist children's hospitals should be categorised to the appropriate medical specialty in Tier 2 clinic, rather than 20.11 Paediatric Medicine or 20.12 Paediatric Surgery. In these circumstances, clinics 20.11 and/or 20.12 may only be used for general paediatric services not covered by specialist paediatric operational clinics.	
6	In some settings, there may be a combination of procedure and consultation services within the one operational clinic. In this scenario, unless the majority of the services provided are procedural, map the operational clinic to the appropriate Tier 2 medical consultation clinic.	
7	Stand-alone diagnostic (ancillary) clinics do not report service events; these are an integral part of the 'requesting' Tier 2 clinic service event.	
8	The non-admitted patient service event will be counted only once	Counting business rule
9	Non-admitted services involving multiple healthcare providers are counted as one non- admitted patient service event.	IHPA Tier 2 Non-admitted Services Compendium 2013-2014[1]
10	If the clinic providing the services is a clinic where care is provided by multiple healthcare providers, then it is irrelevant whether the patient was seen jointly or separately by multiple providers. This should still be counted as one non-admitted patient service event.	
11	For multiple non-admitted patient service events to be counted, the patient must have attended separate clinics.	
12	If the therapeutic/clinical content was ongoing across non-admitted patient service events then only a single non-admitted patient service event must be counted.	
13	Appointments at clinics where services are provided by multiple healthcare providers must not be counted as separate non-admitted patient service events in order to report increased non- admitted patient service events.	
14	Clinics where services have traditionally been provided by multiple healthcare providers must not be registered as separate clinics in order to report increased non-admitted patient service events.	
15	Consultations delivered via ICT must involve an interaction between at least one healthcare provider and the patient. Hence, the presence of the patient is required at one location.	
16	Consultations delivered via ICT must be a substitute for a face to face consultation to be counted as a non-admitted patient service event.	
17	Administrative phone calls, such as booking or rescheduling appointments, must not be counted as non-admitted patient service events.	
18	Consultations delivered via ICT must only be counted as one non-admitted patient service event, by one public hospital service, irrespective of the number of healthcare providers or locations participating.	

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[1] http://www.ihpa.gov.au/internet/ihpa/publishing.nsf/Content/5A5241ACEEFB02BDCA257AD90013231F/$File/Tier2-Non-Admitted-Services-Compendium-2013-2014.pdf

Business Rule Number	Business Rule Description	Reference
19	If the patient is located at a public hospital service provider, the non-admitted patient service event should be counted and reported at the location where the patient physically attends.	
20	If the patient is not located at a public hospital service provider, for example, the patient is in a nursing home or a GP clinic; the non-admitted patient service event should be counted and reported by the hospital providing the consultation.	Counting business rule IHPA Tier 2 Non-admitted Services Compendium 2013-2014
21	If the patient's location is at home the non- admitted patient service event should be counted and reported by the hospital providing the consultation.	
22	The non-admitted patient service event must be documented in the medical record of the hospital where the patient is physically located. It may also be documented in the medical record of another hospital or location attending via ICT	
23	The clinic should be classified to a Tier 2 class based on the specialty or discipline of the usual provider. This may be the speciality or discipline of the healthcare provider at the location where the patient is not physically present.	
24	Patient education service must contain therapeutic/clinical content in order to be counted as a non-admitted patient service event.	
25	Patient education service must be documented in the patient's medical record in order to be counted as a non-admitted patient service event.	
26	Staff education and training must not be counted as a non-admitted patient service event.	
27	The group session must contain therapeutic/clinical content for each patient in the group in order to be counted as non-admitted patient service events.	
28	The interaction must be documented in the individual patient medical records in order to be counted as non-admitted patient service events.	
29	Family members seen as a group can each be counted as non-admitted patient service events as long as each family member was provided with therapeutic/clinical input and a dated entry was made in each family member's medical record.	
30	Family members/carers accompanying a patient to an appointment must not be counted as additional non-admitted patient service events.	
31	Any service provided by non-admitted clinic staff to an inpatient of the hospital must not be counted as a non-admitted patient service event.	Counting business rule IHPA Tier 2 Non-admitted Services Compendium 2013-2014
32	Any attendance or appointment by an inpatient of the hospital at a non-admitted service must not be counted as a non-admitted patient service event.	
33	Services provided by diagnostic clinics are an input or intermediate product to a non-admitted patient service event. They must be included with the non-admitted patient service event.	
34	Non-admitted services recorded by diagnostic clinics should be linked to the related non- admitted patient service event in the costing data.	
35	Where hospital costing systems do not enable a diagnostic service to be linked directly to a non- admitted patient service event, the diagnostic service should be linked to an appropriate non- admitted patient service event within a thirty day range. The thirty day range is thirty days either side of the diagnostic service. Data collection for the purposes of this study will be structured to accommodate this process.	
36	Travel by a healthcare provider, or transport services provided to a patient, must not be counted as a non-admitted patient service event. Provision has been made to identify if healthcare provider travel was required in order to provide service and will be used to refine the cost attribution process.	Counting business rule IHPA Tier 2 Non-admitted Services Compendium 2013-2014 Data collection business rule Study specific defined
37	Care planning or case coordination activities conducted on behalf of a patient but without the patient being present must not be counted as a non-admitted patient service event. Provision has been made to identify time spent on this activity – attributable to an individual patient and will be used to refine the cost attribution process.	Counting business rule IHPA Tier 2 Non-admitted Services Compendium 2013-2014 Data collection business rule Study specific defined

Business Rule Number	Business Rule Description	Reference
38	Services which do not deliver clinical care do not meet the criteria of a non-admitted patient service event and must not be counted. For example, home cleaning, meals on wheels and home maintenance.	Counting business rule IHPA Tier 2 Non-admitted Services Compendium 2013-2014
39	For the purposes of the study data collection process, data will be collected for each of the following non-admitted patient service encounter: a) Each session where a patient undergoes haemodialysis. b) Each day that a patient undertakes peritoneal dialysis. c) Each day that a patient undertakes Total Parental Nutrition (TPN). d) Each day that a patient undertakes Home Enteral Nutrition (HEN). Bundling of these encounters into appropriate non-admitted patient service events using nationally agreed prescribing norms will be applied to the data after each encounter has been costed	Counting business rule IHPA Tier 2 Non-admitted Services Compendium 2013-2014 Data collection business rule Study specific defined
40	Data collection is based at the individual non-admitted patient encounter level which will then be aggregated to a non-admitted service event using appropriate linkages specified in the dataset specifications	Data collection business rule Study specific defined
41	Time spent treating the patient should be completed on the manual data collection form by each attending clinician using a single unique row per clinician	
42	Manual data collection will not be required for non-admitted patients failing to attend a booked appointment. An overhead cost will be allocated to these patients as identified through the outpatient booking system or allied health information system	Costing business rule Study specific defined
43	Provision is made to identify if teaching and training activities are undertaken during the patient encounter. Teaching and training for the purposes of this study is defined to be: *Teaching:* is any activity where the primary aim is to transfer clinical and technical knowledge of ongoing professional development via a teacher or mentor to a student or candidate in a recognised program/course. *Training:* is the planned and organised activity to impart skills, techniques and method to employers and their employees.	Data collection and definition business rule Study specific defined
44	Diagnostic services that are not able to be linked, either directly or using the thirty day range, will not be counted or costed in the non-admitted patient service events.	Costing business rule Study specific defined

Appendix B   Business rules subacute admitted

Business Rule Number	Business Rule Description	Reference
1	The manual data collection form is to be completed on a daily basis for the duration of the subacute admitted episode of care.	Data collection business rule Study specific defined.
2	Data collection is restricted to designated subacute wards where admitted patients are treated	Data collection business rule Study specific defined.
3	Services which do not deliver clinical care do not meet the criteria of inclusion as a subacute admitted patient service event and must not be counted. For example, meals on wheels and home maintenance.	Data collection business rule Study specific defined.

Appendix C Participating Sites and Nominated EY Jurisdictional Officer

State / Territory	Participating Site	Nominated Project Officer
New South Wales	Concord Repatriation Hospital John Hunter Hospital Orange Base Hospital Prince of Wales Hospital St. George Hospital St. Vincent's Hospital – Darlinghurst Westmead Hospital Children's Hospital at Westmead Dubbo Base Hospital Lismore Hospital Liverpool District Hospital Penrith DHS - Nepean Hospital Royal Hospital for Women Royal North Shore Hospital Royal Prince Alfred Hospital Sydney Children's Hospital Sydney/ Sydney Eye Hospital Bulli Wollongong Hospital David Berry Hospital Royal Rehabilitation St Joseph's Sacred Heart Hospital	Angus Cameron *Back-up* Jennifer Powell
Northern Territory	Alice Springs Hospital Royal Darwin Hospital	Angus Cameron *Back-up* Fred Alale
Queensland	Rockhampton Base Hospital Royal Brisbane & Women's Hospital	Gabrielle Dyer *Back-up* Angus Cameron
South Australia	Flinders Medical Centre Hampstead Rehabilitation Centre Lyell McEwin Hospital Modbury Hospital Mt Gambier Health Service Noarlunga Health Service Queen Elizabeth Hospital Repatriation General Hospital Royal Adelaide Hospital Port Lincoln Hospital Whyalla Hospital Women's and Children's Hospital	Robin Michael & *Back-up* Fred Alale
Victoria	Bendigo Health Care Group (Bendigo - Ann Claude The Alfred - Caulfield General Medical Centre	Helen Rizzoli *Back-up* Fred Alale
Western Australia	Joondalup Community Mental Health Inner City Community Mental Health	Rita Brewerton *Back-up* Helen Rizzoli

Appendix D   Steering Committee Members

Chairperson: James Downie

Members:

- Victoria : Greg Dalton

- Tasmania: Kristian Murray, John Marrone, Kevin Ratcliffe and Ian Jordan

- Queensland: Colin McCrow & Gerry Wyvill

- South Australia: Kym Piper & Krystyna Parrott

- DoHA: Richard Hurley

- NSW: Sharon Smith, Suellen Fletcher & David Hardman

- Northern Territory: Jo Wright & Ian Pollock

- Western Australia: Beress Brooks

- IHPA: Karen Chudleigh, Angela Leary-Smith, Joanne Siviloglou & Julia Hume

- EY: Ernst & Young project team.

Appendix E   Example of the Structure of the Reference Tables

National non-admitted and subacute admitted costing study

Top 20 High Cost Prosthesis Reference Table	

Hospital Code	

Hospital Name	

Clinic/ Ward Code		Clinic/ Ward Name	

Project Officer Name	

Note: As a general guide, high cost prosthesis are those with a unit cost of $50 or more, however this level can be adjusted locally to suit specific clinics / wards.

#	Prosthesis Code	Prosthesis Description	Unit cost
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

National non-admitted and subacute admitted costing study

Allied Health Professional Reference Table

Code	Discipline
1	Audiology
2	Dietetics & Nutrition
3	Occupational Therapy
4	Orthotics
5	Peer Support Worker
6	Physiotherapy
7	Podiatry
8	Psychology
9	Social Work
10	Speech Therapy
11	Pharmacy
12	Other

National non-admitted and subacute admitted costing study

Hospital Codes (NHCDC IDs)

#	State	Name	NHCDCID Code
1	NSW	Concord Repatriation Hospital	2CON
2	NSW	John Hunter Hospital	2JON
3	NSW	Orange Base Hospital	2ORA
4	NSW	Prince of Wales Hospital	2PRN
5	NSW	St. George Hospital	2SGN
6	NSW	St. Vincent's Hospital - Darlinghurst/Sacred Heart	2SVP
7	NSW	Westmead Hospital	2WMD
8	NSW	Children's Hospital at Westmead	2THE
9	NSW	Dubbo Base Hospital	2DUB
10	NSW	Lismore Hospital	2LIS
11	NSW	Liverpool District Hospital	2LIV
12	NSW	Penrith DHS - Nepean Hospital	2NEP
13	NSW	Royal Hospital for Women	2RHW
14	NSW	Royal North Shore Hospital	2RNH
15	NSW	Royal Prince Alfred Hospital	2ROY
16	NSW	Sydney Children's Hospital	2SCH
17	NSW	Sydney/ Sydney Ear Hospital	2SYD
18	NSW	Tweed Heads	2TWE
19	NSW	Wollongong Hospital	2WOL
20	NSW	David Berry Hospital	2DBE
21	NSW	Royal Rehabilitation	2RRH
22	NSW	St Joseph's	2SJH
23	NSW	Woy Woy Hospital	2WOY
24	NT	Alice Springs Hospital	8ASH
25	NT	Royal Darwin Hospital	8RDH
26	QLD	Rockhampton Base Hospital	4ROC
27	QLD	Royal Brisbane & Women's Hospital	4RBH
28	SA	Flinders Medical Centre	5FLI
29	SA	Hampstead Rehabilitation Centre	5HRC
30	SA	Lyell McEwin Hospital	5LMH
31	SA	Modbury Hospital	5MOD
32	SA	Mt Gambier Health Service	5MTG
33	SA	Noarlunga Health Service	5NOA
34	SA	Queen Elizabeth Hospital	5TQE
35	SA	Repatriation General Hospital	5REP
36	SA	Royal Adelaide Hospital	5RAH
37	SA	Port Lincoln Hospital	5PTL
38	SA	Whyalla Hospital	5WHY
39	SA	Women's and Children's Hospital	5WCH
40	VIC	Bendigo Health Care Group (Bendigo - Ann Claude	3BND
41	VIC	The Alfred - Caulfield General Medical Centre	3BEU
42	WA	Joondalup Community Mental Health	6JDN
43	WA	Inner City Community Mental Health	6INC

Appendix F   Site standard input costs form

Product type	Unit Cost
Medical Hourly Rate:	
Medical Levels:	
Nursing Hourly Rate:	
Nursing Levels:	
Allied Health Hourly Rate:	
Physiotherapist Social Work Dietician Occupational Therapist Psychologist Speech Pathologist Audiologist Pharmacist Other, specify discipline	

Appendix G   Non-admitted Dataset Specifications

Non-admitted Services: DSS Part 1 – Tier 2 Clinic Mapping File

It is recognised that hospitals have unique non-admitted clinics and have adopted in-house coding and nomenclature to describe and differentiate between these clinics. A unique mapping was required of each hospital non-admitted clinic name and code to one of the Tier 2 non-admitted clinic codes listed in Appendix H.

An example of the mapping file provided to the costing team is outlined below:

Hospital/Facility Code: VA001			
Hospital non-admitted Clinic Code	Hospital non-admitted Clinic Name/Description	Tier 2 non-admitted Clinical Code Mapped to	Tier 2 non-admitted Clinic Description
All01	Allergic Rhinitis and Chronic Sinusitis Clinic	20.41	Immunology
Aud01	Diagnostic Hearing Assessment	40.17	Audiology
Spt02	Laryngology/Voice Clinic	40.18	Speech Pathology

Non-admitted Services: DSS Part 2 – Manual Form Specification

The scope of this data file is non-admitted patient service events involving non-admitted patients in hospitals participating in the non-admitted costing study. This includes all arrangements made to deliver non-admitted patient service events to non-admitted patients:

- irrespective of location (includes on-campus and off-campus),

- whose treatment has been funded through the hospital, regardless of the source from which the hospital derives these funds.

In particular, Department of Veterans' Affairs, compensable and other patients funded through the hospital (including Medicare ineligible patients) are included; and

- regardless of setting or mode

Excluded from the scope are all services covered by:

- the Admitted patient care,

- the Admitted patient mental health care,

- the non-admitted patient emergency department care

- the admitted patient emergency department care; and

- Service events which deliver non-clinical care, e.g. activities such as home cleaning, meals on wheels or home maintenance.

For further details, refer to the non-admitted patient DSS 2013-14 (METeOR ID: 509071)

Item No	Data item	Position	Type & size	Description/Valid values / Notes	Edit Rules
1	Hospital Code	1-4	A(4)	Study assigned unique hospital identifier.	Critical error if blank or not unique
2	Encounter Date	5-8	N(4)	DD/MM used to identify the date of the patients encounter with non-admitted services	Critical error if blank or not number dd/mm format
3	Medical record number (MRN)	9-20	A(11)	Person identifier unique within hospital.(left justified blank filled)	Critical error if not left justified Critical error if blank
4	Clinic Code	21-25	A(5)	Use to identify hospital unique non-admitted clinic. The clinic code covers: • outpatient clinics • community programs • outreach programs	Critical error if blank

Item No	Data item	Position	Type & size	Description/Valid values / Notes	Edit Rules
				• subacute non-admitted programs and clinics • The code used is drawn from each hospitals internal information systems and is unique to each participating hospital A mapping of this clinic code to the Tier 2 classification is to be provided (reference Non-admitted DSS Part 1)	
5	Staff travelled to provide service	26	A(1)	Used to identify if a staff member had to travel to provide service to client (e.g. to client home, to outreach clinic) Tick box	Tick box, blank allowed
7	Indigenous status/ATSI flag	27	A(1)	Use NHDD/METeOR definition. To be ticked if patient fits any one of the following descriptions: 1 - Aboriginal but not Torres Strait Islander origin 2 - Torres Strait Islander but not Aboriginal origin 3 - Both Aboriginal and Torres Strait Islander origin Tick box	Tick box, blank allowed
8	Location of Service	28-31	A(1)	Identifies location in which non-admitted service was provided to the patient. Options include: • hospital • community clinic • home • nursing home Tick Box	Critical error if blank Need to select only one of the four options for each form completed. Tick Box
9	Teaching or training in session	32	A(1)	Identifies if teaching or training occurs during session Tick box	Tick Box, blank allowed
10	Private Patient Status	33	A(1)	A private patient is anyone who has an external payer including bulk billed Medicare, private health insurer and payment via own funds.	Tick Box, blank allowed
11	Service Provision Type	34-37	A(4)	Identifies service delivery mode, other than direct face to face and one to one consultation. Options include service provision via: • Teleconference • Video conference • Group Session, number of patients in the group to be identified • Other, further specification required	If blank defaults to one on one (face to face) session having occurred
12	Reason for Visit	38-40	A(1)	Identifies the service event status. An indicator of whether a service event involves a problem not previously addressed at the same clinical service. Options include service provision via: • New (A new non-admitted patient service event is one for a problem not previously addressed at the same clinical service.) • Review (non-admitted patient service events that are not new or involve maintenance of a condition or are being seen as a result of pre-operative or post-operative requirements. Examples may include medical patients, or screening services, etc.) • Encounter linked to an inpatient episode (pre or post operative consultations are covered by this category)	Critical error if blank Multiple selections allowed Tick Box
13	Support	41-43	A(1)	Indicator of patient supports involved in the	Multiple selections allowed

Item No	Data item	Position	Type & size	Description/Valid values / Notes	Edit Rules
				delivery of non-admitted services. Options include: • presence of carer/family • presence of an interpreter • presence of an Aboriginal Liaison Officer	Tick Box
14	Diagnosis	44	Free Text	Principal reason / diagnosis for which the patient is having this episode of care	Critical error if blank Free Text
15	Significant Procedure	45	Free Text	Significant procedure conducted during the patient encounter	Free Text
16	Clinical Staff Category	49-52	A(2)	Identifies the profession of the clinician treating the non-admitted patient per encounter. Options include: Tick box for: *Medical* • Senior • Junior 'Senior' medical professionals refer to Consultants, Staff Specialists, Visiting Medical Officers (VMOs) and Visiting Medical Practitioners (VMPs) whilst 'Junior' medical professionals refer to all other medical ranks e.g. Registrars, Senior House Officers and Interns. *Nursing* • Advanced Nurse • RN (Registered Nurse) • EN (Enrolled Nurse) • Other (Assistant in Nursing) Use 'Advanced Nurse' for Nurse Practitioners, Clinical Nurse Consultants and Clinical Nurse Specialists. *One row per Nurse*, if there are multiple Nurses seeing the patient during the encounter. Numeric selection for: *Allied Health Professional* 1. Audiology 2. Dietetics & Nutrition 3. Occupational Therapy 4. Orthotics 5. Dental 6. Physiotherapy 7. Podiatry 8. Psychology 9. Social Work 10. Speech Therapy 11. Pharmacy 12. Other	Critical error if *all* rows are blank Critical error if *multiple clinical professionals nominated on one line*
17	Direct Care Time	53	N(4)	Time spent by the clinician providing care directly to the patient. Specified in minutes.	Critical error if blank
18	Patient Attributable Indirect Care Time	54	N(4)	Time spent by the clinician undertaking activities on behalf of a patient, where the patient is not present e.g. Case conference, history, referrals, reports, care plans etc. Other examples include organisation of patient transport, organisation of respite care with another provider, organisation of equipment, etc. Specified in minutes	
19	High Cost Consumable_1	55	N(2)	Identification of first high cost consumable used in the patient encounter. Site specific list restricted to 20 items	Critical error if not numeric

Item No	Data item	Position	Type & size	Description/Valid values / Notes	Edit Rules
20	High Cost Consumable_2	57	N(2)	Identification of second high cost consumable used in the patient encounter. Site specific list restricted to 20 items	Critical error if not numeric
21	High Cost Consumable_3	59	N(2)	Identification of third high cost consumable used in the patient encounter. Site specific list restricted to 20 items	Critical error if not numeric
22	High Cost Prosthetic_1	61	N(2)	Identification of first high cost prosthesis used in the patient encounter. Site specific list restricted to 20 items.	Critical error if not numeric
23	High Cost Prosthetic_2	63	N(2)	Identification of second high cost prosthesis used in the patient encounter. Site specific list restricted to 20 items	Critical error if not numeric
24	High Cost Prosthetic_3	65	N(2)	Identification of third high cost prosthesis used in the patient encounter. Site specific list restricted to 20 items	Critical error if not numeric
25	Supplementary Clinical Attributes	677-71	A(1)	Specific to subacute non-admitted patient encounters. Indicator of whether Supplementary Clinical Attributes have been collected specific to the patient encounter. Supplementary Clinical Attributes collected cover: Confusion Assessment Method (CAM) Mini Mental State Examination Rockwood Frailty Index	Tick Box

Preferred file naming conventions and Dates for extraction of data by Information Management System

The following table provides the preferred naming convention to be applied to the data extract files and nominated dates when extracted data should have been supplied to the study team. As a result of delays in collection initiation the project timelines were extend to ensure the study captured a statistically relevant volume that covered the desired Tier 2 coverage and subacute care type. In elongating the project time line the decision was made to provide 2 tranches of data. Tranche 1 being made available to IHPA by October 30th and Tranche 2 a cumulative dataset that was transferred on December 7th.

Information system extract	Preferred Naming Convention	Date of data submission
Outpatient Booking System	OP<Hospital Name><Period to which extraction relates (dd_mm-dd_mm)> e.g. OPWWH01_07-30_07	This extract is to be supplied to the EY Jurisdictional Officer 14 days after the end of each month and at the conclusion of the study. Submission dates are: • Wednesday 14th August 2013 covering the July data collection period • Monday 16th September 2013 covering any outstanding data • Friday 15th November 2013.
Radiology System	RIS<Hospital Name><Period to which extraction relates (dd_mm-dd_mm)> e.g. RISWWH01_07-30_07	The RIS extract is to be supplied to the Jurisdictional representatives 14 days after the end of each month and at the conclusion of the study. Submission dates are: • Wednesday 14th August 2013 covering the July data collection period • Monday 16th September 2013 covering any outstanding data • Friday 15th November 2013.

Information system extract	Preferred Naming Convention	Date of data submission
Laboratory System	LIS<Hospital Name><Period to which extraction relates (dd_mm-dd_mm)> e.g. LISWWH01_07-30_07	The extract from LIS is to be supplied to the EY Jurisdictional Officer 14 days after the end of each month and at the conclusion of the study. Submission dates are: • Wednesday 14th August 2013 covering the July data collection period • Monday 16th September 2013 covering any outstanding data • Friday 15th November 2013.
Pharmacy System	PHARM<Hospital Name><Period to which extraction relates (dd_mm-dd_mm)> e.g. PHARMWWH01_07-30_07	The pharmacy extract is to be supplied to the EY Jurisdictional Officer 14 days after the end of each month and at the conclusion of the study. Submission dates are: • Wednesday 14th August 2013 covering the July data collection period • Monday 16th September 2013 covering any outstanding data Friday 15th November 2013.
Allied Health System	AHP<Hospital Name><Period to which extraction relates (dd_mm-dd_mm)> e.g. AHPWWH01_07-30_07	This extract is to be supplied to the EY Jurisdictional Officer 14 days after the end of each month and at the conclusion of the study. Submission dates are: • Wednesday 14th August 2013 covering the July data collection period • Monday 16th September 2013 covering any outstanding data • Friday 15th November 2013.
Patient Administration System	PAS<Hospital Name><Period to which extraction relates (dd_mm-dd_mm)> e.g. PASWWH01_07-30_07	This extract is to be supplied to the EY Jurisdictional Officer 14 days after the end of each month and at the conclusion of the study. Submission dates are: • Wednesday 14th August 2013 covering the July data collection period • Monday 16th September 2013 covering any outstanding data • Friday 15th November 2013.

Appendix H   Subacute Dataset Specifications

Subacute admitted Services: DSS Part 1 – Manual Form Specification

The scope of this data file is same day and overnight subacute and non-acute care episodes in designated subacute and non-acute care units, programs or hospitals, and admitted patients in rehabilitation care, palliative care, geriatric evaluation and management, psychogeriatric and maintenance care designated programs treated in the hospital-in-the-home. Excluded from the scope are subacute and non-acute episodes in non-designated units, programs or hospitals.

(For further details, refer to the Activity based funding: Admitted subacute and non-acute hospital care DSS 2013-2014 (METeOR ID: 496358))

Item No	Data item	Position	Type & size	Description/Valid values / Notes	Edit Rules
1	Hospital Code	1-4	A(4)	Unique Hospital Name.	**Critical error** if blank
2	Medical record number (MRN)	5-9	A(11)	Person identifier unique within hospital.(left justified blank filled)	**Critical error** if blank or not unique
3	High Cost Prosthetic_1	10-11	N(2)	Identification of first high cost prosthesis used in the patient encounter. Site specific list restricted to 20 items	**Critical error** if not numeric
4	High Cost Prosthetic_2	12-13	N(2)	Identification of second high cost prosthesis used in the patient encounter. Site specific list restricted to 20 items	**Critical error** if not numeric
5	High Cost Prosthetic_3	14-15	N(2)	Identification of third high cost prosthesis used in the patient encounter. Site specific list restricted to 20 items	**Critical error** if not numeric
6	High Cost Consumable_1	16-17	N(2)	Identification of first high cost consumable used in the patient encounter. Site specific list restricted to 20 items	**Critical error** if not numeric
7	High Cost Consumable_2	18-19	N(2)	Identification of second high cost consumable used in the patient encounter. Site specific list restricted to 20 items	**Critical error** if not numeric
8	High Cost Consumable_3	20-21	N(2)	Identification of third high cost consumable used in the patient encounter. Site specific list restricted to 20 items	**Critical error** if not numeric
9	Ward Code	22-27	A(6)	Unique hospital specific ward descriptor or code	**Critical error** if blank
10	Date of Stay	28-31	N(4)	Date field DD/MM Day of stay and day on which subacute admitted service provided	**Critical error** if blank
11	Supplementary Clinical Attributes	32	A(1)	Specific to subacute admitted patient encounters. Indicator of whether Supplementary Clinical Attributes have been collected specific to the patient encounter. Supplementary Clinical Attributes collected cover: • PCOC • AROC • Confusion Assessment Method (CAM) • Mini Mental State Examination • Rockwood Frailty Index	**Tick Box** **Multiple selections allowed**
12	Care Type	33	N(1)	Identifies the service event status. An indicator of whether a service event involves a problem not previously addressed at the same clinical service. Options include service provision via: 1 Rehabilitation 2 Palliative Care 3 Geriatric evaluation and management (GEM) 4 Psychogeriatric care 5 Non-acute/Maintenance	**Critical error** if blank

Item No	Data item	Position	Type & size	Description/Valid values / Notes	Edit Rules
13	Carer Availability	34	A(1)	Indicator of carer availability Tick Box	**Tick Box**
14	Carer Residency	35	A(1)	Identifies whether carer is co-resident with patient	**Critical error** if blank
15	Specialling hours_night shift	36	N(1)	Total number of hours that the patient was 'specialled' during the shift	**Critical error** if not numeric
16	Specialling staff category_night shift	37	A (2)	Identifies the code which identifies the category of staff member undertaking the specialling for the patient Options include via: • AN – Advanced Nurse • NM – Nurse Unit Manager • RN – Registered Nurse • EN – Enrolled Nurse • OT - Other • 01 - Audiology • 02 - Dietetics & Nutrition • 03 - Occupational Therapy • 04 - Orthotics • 05 - Dental • 06 - Physiotherapy • 07 - Podiatry • 08 - Psychology • 09 - Social Work • 10 - Speech Therapy	
17	Specialling hours_day shift	39	N(1)	Total number of hours that the patient was 'specialled' during the shift	**Critical error** if not numeric
18	Specialling staff category_day shift	40	A (2)	Identifies the code which identifies the category of staff member undertaking the specialling for the patient Options include via: • AN – Advanced Nurse • NM – Nurse Unit Manager • RN – Registered Nurse • EN – Enrolled Nurse • OT – Other • 01 - Audiology • 02 - Dietetics & Nutrition • 03 - Occupational Therapy • 04 - Orthotics • 05 - Dental • 06 - Physiotherapy • 07 - Podiatry • 08 - Psychology • 09 - Social Work • 10 - Speech Therapy	
19	Specialling hours_evening shift	42	N(1)	Total number of hours that the patient was 'specialled' during the shift	Critical error if not numeric
20	Specialling staff category_evening shift	43 - 44	A (2)	Identifies the code which identifies the category of staff member undertaking the specialling for the patient Options include via: • AN – Advanced Nurse • NM – Nurse Unit Manager • RN – Registered Nurse • EN – Enrolled Nurse • OT – Other • 01 - Audiology • 02 - Dietetics & Nutrition • 03 - Occupational Therapy	

Item No	Data item	Position	Type & size	Description/Valid values / Notes	Edit Rules
				• 04 - Orthotics • 05 - Dental • 06 - Physiotherapy • 07 - Podiatry • 08 - Psychology • 09 - Social Work • 10 - Speech Therapy	
21	Clinical Staff Category	45-46	A(2)	Identifies the profession of the clinician treating the non-admitted patient per encounter. Options include: **Tick box for:** ***Medical*** • Senior • Junior 'Senior' medical professionals refer to Consultants, Staff Specialists, Visiting Medical Officers (VMOs) and Visiting Medical Practitioners (VMPs) whilst 'Junior' medical professionals refer to all other medical ranks e.g. Registrars, Senior House Officers and Interns. Nursing • Advanced Nurse • NUM (Nurse Unit Manager) • RN (Registered Nurse) • EN (Enrolled Nurse) • Other (Assistant in Nursing) Use 'Advanced Nurse' for Nurse Practitioners, Clinical Nurse Consultants and Clinical Nurse Specialists. Numeric selection for: Allied Health Professional 1. Audiology 2. Dietetics & Nutrition 3. Occupational Therapy 4. Orthotics 5. Dental 6. Physiotherapy 7. Podiatry 8. Psychology 9. Social Work 10. Speech Therapy 11. Pharmacy 12. Other	**Critical error** if **all** rows are blank **Critical error** if ***multiple clinical professionals nominated on one line***
22	Shift	47	N(1)	1. Night 2. Day 3. Evening	
23	Direct Care Time	48-50	N(3)	Time spent by the clinician providing care directly to the patient. Specified in 5 minute aliquots. Tick box	**Critical error** if **all** blank **Tick Box**
24	Patient Attributable Indirect Care Time	51-52	N(2)	Time spent by the clinician undertaking activities on behalf of a patient, where the patient is not present e.g. Case conference, history, referrals, reports, care plans etc. Other examples include organisation of patient transport, organisation of respite care with another provider, organisation of equipment, etc. Specified in 5 minute aliquots	**Tick Box**

Appendix I   Non-admitted ICT Data Specifications

Non-admitted Services: DSS Part 3 – ICT Data Specification

The following outlines the data item extracts required from the respective information systems.

Preferred file formats are CSV, Access, and Excel; however this was discussed and agreed with each site to facilitate timeliness and ease of extraction.

Item No	Data item	Type & size	Valid values / Notes	Edit Rules	Information System
1	Hospital Code	A(4)	Study assigned unique hospital identifier.	Critical error if blank or not unique	All feeder systems (outpatient booking, radiology, laboratory, allied health, pharmacy, patient administration information systems).
2	Encounter Date	N(6)	DD/MM/YYYY used to identify the date of the patients encounter with non-admitted services.	Critical error if blank or not number dd/mm/yyyy format	All feeder systems (outpatient booking, radiology, laboratory, allied health, pharmacy, patient administration information systems).
3	Medical record number (MRN)	A(11)	Person identifier unique within hospital.(left justified blank filled).	Critical error if not left justified. Critical error if blank	All feeder systems (outpatient booking, radiology, laboratory, allied health, pharmacy, patient administration information systems).
4	Linked encounter number	A(11)	Unique patient encounter link enabling grouping of services to a specific patient event.	Not mandatory – jurisdiction or site specific	All feeder systems (outpatient booking, radiology, laboratory, allied health, pharmacy, patient administration information systems).
5	Date of Birth	N(6)	Date of person's birth. Date field DD/MM/YYYY To be used for data linkage purposes in conjunction with MRN, linked encounter number, selected letters of the First given name, Date of birth and Sex.		All feeder systems (outpatient booking, radiology, laboratory, allied health, pharmacy, patient administration information systems).
6	Indigenous Status	N(1)	Use NHDD/METeOR definition. Options are: 1 - Aboriginal but not Torres Strait Islander origin 2 - Torres Strait Islander but not Aboriginal origin 3 - Both Aboriginal and Torres Strait Islander origin 4 – Neither Aboriginal nor Torres Strait Islander origin 9 – Not stated/inadequately described.		Outpatient booking, patient administration information systems.
7	Gender	N(1)	Operationally, gender is the distinction between male and female, as reported by a person or as determined by an interviewer. Options are: 1 – Male 2- Female 3 – Intersex or indeterminate 9 - Not stated/inadequately described		Outpatient booking, patient administration information systems.

Item No	Data item	Type & size	Valid values / Notes	Edit Rules	Information System
8	Service event status	N(1)	Identifies the service event status. An indicator of whether a service event involves a problem not previously addressed at the same clinical service. Options include: • New (A new non-admitted patient service event is one for a problem not previously addressed at the same clinical service.) • Review (non-admitted patient service events that are not considered new) • Encounter linked to an inpatient episode (pre or post operative consultations are covered by this category)	Critical error if blank	Outpatient booking information systems.
9	Booked Time	N(4)			Outpatient booking information system.
10	Non-admitted clinic code	A(5)	Use to identify hospital unique non-admitted clinic. The clinic code covers: • outpatient clinics • community programs • outreach programs • subacute non-admitted programs and clinics The code used is drawn from each hospitals internal information systems and is unique to each participating hospital.	Critical error if blank	Outpatient booking, allied health information systems.
11	Non-admitted clinic name	A(20)	Use to identify hospital unique non-admitted clinic. The clinic description covers: • outpatient clinics • community programs • outreach programs • subacute non-admitted programs and clinics The description used is drawn from each hospitals internal information systems and is unique to each participating hospital.		Outpatient booking, allied health information systems.
12	Clinician(s) attending	A(20)	Unique identifier listing clinicians attending. May be name or clinician unique identifier – hospital specific.		Outpatient booking, allied health information systems.
13	Group Session	N(1)	Indicator to identify if service provided in a group setting or as a single patient encounter.		Outpatient booking, allied health information systems.
14	Number of patient attendees – group session	N(3)	The number of patients attending the group session.	Critical error if blank and data item 15 is indicated	Outpatient booking, allied health information systems.
15	Encounter Time Direct	N(4)	Time spent by the clinician providing care directly to the patient. Specified in minutes.		Allied Health Information Management System.

Item No	Data item	Type & size	Valid values / Notes	Edit Rules	Information System
16	Encounter Time Indirect Patient Attributable	N(4)	Time spent by the clinician undertaking activities on behalf of a patient, where the patient is not present. Examples include organisation of patient transport, organisation of respite care with another provider, organisation of equipment, etc. Specified in minutes.		Allied Health Information Management System.
17	Date of Admission		Date admitted to hospital. Used to exclude records.		Patient Administration Information System.
18	Date of Discharge		Date of discharge from hospital. Use to define patient episode to exclude from study.		Patient Administration Information System.
19	Service request date	N(6)	Date request for test/diagnostic was raised.		Radiology, pathology, pharmacy information systems.
20	Requesting Location	A(1)	Location identifier recording where request was raised Options are: 1. Outpatients 2. Emergency 3. Wards 4. Other 9. Unknown.		Radiology, pathology, pharmacy information systems.
21	Exams requested	A(10)	List of examination codes ordered within this request. Codes specific to hospital radiology, laboratory systems (refer radiology and laboratory reference table specifications respectively).	Critical error if blank To be paired with data item 24 in this table	Radiology, laboratory information management systems.
22	Quantity of exam requested	N(3)		Critical error if blank To be paired with data item 23 in this table	Radiology, laboratory information management systems.
23	Ordering Consultant	A(20)	Identifies consultant requesting examination.	Used for linkage to non-admitted service event	Radiology, laboratory, pharmacy information management systems.
24	Drugs Requested	A(20)	List of drugs (using Pharmacy catalogue ID) ordered within this request.	Critical error if blank To be paired with data item 27 in this table	Pharmacy information management system.
25	Drug quantity requested	N(5)	Drug quantity.	Critical error if blank To be paired with data item 26 in this table	Pharmacy information management system.

The date of admission and date of discharge from hospital was required from the patient administration system extract and was used to ensure linkages between respective feeder systems are made to the appropriate patient encounter (non-admitted) as distinct to a patient episode (admitted event).

Appendix J   Subacute ICT Data Specifications

Subacute admitted Services: DSS Part 2 – ICT Data Specification

The following outlines the data item extracts required from the respective information systems.

Preferred file formats are CSV, Access, and Excel; however this was discussed and agreed to with each site to facilitate timeliness and ease of extraction.

Item No	Data item	Type & size	Valid values / Notes	Edit Rules	Information System
1	Hospital Code	A(4)	Study assigned unique hospital identifier.	**Critical error** if blank or not unique	**All feeder** systems (dependency, radiology, laboratory, allied health, pharmacy, patient administration information systems)
2	Service Date	N(6)	DD/MM used to identify the date of the patients episode of care on which subacute admitted services were provided	**Critical error** if blank or not number dd/mm format	**All feeder** systems (dependency, radiology, laboratory, allied health, pharmacy)
3	Medical record number (MRN)	A(11)	Person identifier unique within hospital.(left justified blank filled)	**Critical error** if not left justified **Critical error** if blank	**All feeder** systems (dependency, radiology, laboratory, allied health, pharmacy, patient administration information systems)
4	Episode number	A(5)	The unique number that enables each hospital admitted encounter of the same patient to the same hospital to be uniquely identified	**Critical error** if blank	**All feeder** systems (dependency, radiology, laboratory, allied health, pharmacy, patient administration information systems)
5	Date of Birth	N(6)	Date of person's birth. Date field DD/MM/YYYY To be used for data linkage purposes in conjunction with MRN, linked encounter number, selected letters of the First given name, Date of birth and Sex		**All feeder** systems (radiology, laboratory, allied health, pharmacy, patient administration information systems)
6	Indigenous Status	N(1)	Use NHDD/METeOR definition. Options are: 1 - Aboriginal but not Torres Strait Islander origin 2 - Torres Strait Islander but not Aboriginal origin 3 - Both Aboriginal and Torres Strait Islander origin 4 – Neither Aboriginal nor Torres Strait Islander origin 9 – Not stated/inadequately described		Patient administration information systems
7	Gender	N(1)	Operationally, gender is the distinction between male and female, as reported by a person or as determined by an		Dependency, Patient administration information systems

Item No	Data item	Type & size	Valid values / Notes	Edit Rules	Information System
			interviewer. Options are: 1 – Male 2- Female 3 – Intersex or indeterminate 9 - Not stated/inadequately described		
8	Care Type	N(1)	Identifies the service event status. An indicator of whether a service event involves a problem not previously addressed at the same clinical service. Options include service provision via: 1. Rehabilitation 2. Palliative Care 3. Geriatric evaluation and management (GEM) 4. Psychogeriatric care 5. Non-acute / Maintenance	**Critical error** if blank	Dependency, Patient administration information systems
9	Admitted Ward	A(6)	Site specific ward code		Dependency, Patient administration information systems
10	Discharge Ward	A(6)	Site specific ward code	**Critical error** if blank	Dependency, Patient administration information systems
11	Encounter Time Direct	N(4)	Time spent by the clinician providing care directly to the patient. Specified in minutes.		Dependency, Allied Health Information Management Systems
12	Encounter Time Indirect Patient Attributable	N(4)	Time spent by the clinician undertaking activities on behalf of a patient, where the patient is not present. Examples include organisation of patient transport, organisation of respite care with another provider, organisation of equipment, etc. Specified in minutes		Dependency, Allied Health Information Management Systems
13	Date of Admission	N(6)	Date admitted to hospital Date field DD/MM/YYYY	**Critical error** if blank	Dependency, Patient Administration Information System
14	Date of Discharge		Date of discharge from hospital Date field DD/MM/YYYY		Dependency, Patient Administration Information System
15	Date of Care Type Change		Date of care type change Date field DD/MM/YYYY	**Critical error** if blank	Dependency, Patient Administration Information System

Item No	Data item	Type & size	Valid values / Notes	Edit Rules	Information System
16	Dependency Score	N(5)	Nurse dependency score Hospital specific system defined code	**Critical error** if blank extract from dependency system	Dependency information system
17	Service request date	N(6)	Date request for test/diagnostic was raised Date field DD/MM/YYYY	**Critical error** if blank	Radiology, pathology, pharmacy information systems
18	Requesting Location	A(1)	Location identifier recording where request was raised Options are: 1. Emergency 2. Wards 3. Other 9. Unknown		Radiology, pathology, pharmacy information systems
19	Exams requested	A(10)	List of examination codes ordered within this request Codes specific to hospital radiology, laboratory systems (refer radiology and laboratory reference table specifications respectively)	**Critical error** if blank To be paired with data item 21 in this table	Radiology, laboratory information management systems
20	Quantity of exam requested	N(3)		**Critical error** if blank To be paired with data item 20 in this table	Radiology, laboratory information management systems
21	Ordering Consultant	A(20)	Identifies consultant requesting examination	Used for linkage to admitted service event	Radiology, laboratory , pharmacy information management systems
22	Drugs Requested	A(20)	List of drugs (using Pharmacy catalogue ID) ordered within this request	**Critical error** if blank To be paired with data item 24 in this table	Pharmacy information management system
23	Drug quantity requested	N(5)	Drug quantity	**Critical error** if blank To be paired with data item 23 in this table	Pharmacy information management system
24	Palliative phase of care start date	A(8)	Format DDMMYYYY (zero filled) E.g. 3rd March 2010 would be 03032010	**Critical error** if record not in format DDMMYYYY **Critical error** if value > the end date of quarter date range (e.g. Dec quarter 2013 error if value > 31 Dec 2013).	Supplementary Clinical Attributes databases
25	Palliative phase of care end date	A(8)	Format DDMMYYYY (zero filled) E.g. 3rd March 2010 would be 03032010	**Critical error** if record not in format DDMMYYYY **Critical error** if value > the end date of quarter date range (e.g. Dec quarter 2013 error if value > 31 Dec 2013).	Supplementary Clinical Attributes databases

Item No	Data item	Type & size	Valid values / Notes	Edit Rules	Information System
26	Palliative care phase type	N(1)	Use METeOR definition 1-Stable 2-Unstable 3-Deteriorating 4-Terminal 9-Not reported	**Critical error** if not numeric **Critical error** if not 1, 2, 3, 4, 5 or 9	Supplementary Clinical Attributes databases
27	Clinical assessment tool	N (2)	Use METeOR definition 2.0 Resource Utilisation Groups - Activities of Daily Living (RUG-ADL) total Note: Left justified and blank fill to 2 places if not reported Data format excludes decimal point	**Critical error** if not 20 or blank	Supplementary Clinical Attributes databases
28	Clinical assessment score	N(2)	Use METeOR definition Format NN Right justified and zero filled (00) if no RUG-ADL total score Total RUG-ADL score would be between 04 and 18 Required to be collected at the start of each palliative care phase.	**Critical error** if not numeric **Critical error** if clinical assessment tool = 20 and clinical assessment score not in the range 04 to 18 or 00	Supplementary Clinical Attributes databases
29	Clinical assessment score	N(2)	Use METeOR definition Format NN Right justified and zero filled (00) if no RUG-ADL total score Total RUG-ADL score would be between 04-18 Optional to be collected at the end of each palliative care episode.	**Critical error** if not numeric **Critical error** if clinical assessment tool = 20 and clinical assessment score not in the range 04 to 18 or 00	Supplementary Clinical Attributes databases
30	AN-SNAP class	N(4)	Use METeOR definition Format NNNN (zero filled for AN-SNAP Version 1 which has 3 digit class codes) e.g. 0NNN Class codes for AN-SNAP Version 1 (3 digit), AN-SNAP Version 2 (4 digit) and AN-SNAP Version 3 (4 digit) are provided. 9999 - Class code not provided	**Critical Error** if not numeric **Critical error** if not 0101 - 0111, 2101 - 2112, 3101 - 3172, 3901, 3906 or 9999	Supplementary Clinical Attributes databases
31	Palliative care linking key	A(50)	State-produced key used for linking subacute admitted and Non-acute data and Palliative phase of care data Note: Left justified and blank fill.	**Critical error** if blank	Supplementary Clinical Attributes databases
32	Assessment only indicator	N(1)	Use METeOR definition 1 - Yes 2 - No 3 - Unknown 9 - Not stated / inadequately	**Critical Error** if not numeric **Critical error** if not 1, 2, 3 or 9	Supplementary Clinical Attributes databases

Item No	Data item	Type & size	Valid values / Notes	Edit Rules	Information System
			described	**Critical error** if not (3 or 9) and care type not (2, 3, 4, 5 or 6)	
33	Impairment type	N(7)	Use METeOR definition Format NN.NNNN (zero filled if less than 6 digits) Apply AROC impairment codes from 1 July 2012 99.9999 - No AROC impairment code provided Data format includes decimal point	**Critical Error** if not numeric **Critical Error** if not right justified **Critical error** if not 99.9999 or code not listed in the AROC impairment codes worksheet. **Critical error** if not 99.9999 and care type not 2	Supplementary Clinical Attributes databases
34	Type of maintenance care	N (2)	Use METeOR definition 1 - Convalescent 2 - Respite 3 - Nursing home type 8 - Other 98 - Unknown 99 - Not stated / inadequately described Right justified and zero filled if less than 2 digits	**Critical Error** if not numeric **Critical error** if not 1, 2, 3, 8, 98 or 99 **Critical error** if (value 1, 2, 3 or 5) and care type not 6	Supplementary Clinical Attributes databases
35	Clinical assessment tool array	N (2)	Use METeOR definition 1.1 Functional Independence Measure (FIM) - Motor subscale total 1.2 Functional Independence Measure (FIM) - Social cognition subscale total 2.0 Resource Utilisation Groups - Activities of Daily Living (RUG-ADL) total 3.0 Health of the Nation Outcome Scale 65+ (HoNOS 65+) total 3.1 Health of the Nation Outcome Scale 65+ (HoNOS 65+) Problems with Activities of Daily Living 3.2 Health of the Nation Outcome Scale 65+ (HoNOS 65+) Overactive, Aggressive, Disruptive Behaviour 9.0 Not stated/inadequately described Blank fill if care type not 2, 4, 5, 6 Data format excludes decimal point	**Critical error** if not 11, 12, 20, 30, 31, 32 or 90 **Critical error** if blank and care type is 2, 4, 5, 6	Supplementary Clinical Attributes databases
36	Clinical assessment score array	N(2)	Use METeOR definition Format NN Right justified and zero filled if less than 2 digits It clinical assessment tool is blank, clinical assessment score must be 00	**Critical Error** if not numeric **Critical Error** if not right justified **Critical error** if clinical assessment tool = 11 and clinical assessment score value not in the range 13 and 91 **Critical error** if clinical assessment tool = 12 and	Supplementary Clinical Attributes databases

Item No	Data item	Type & size	Valid values / Notes	Edit Rules	Information System
				clinical assessment score value not in the range 05 and 35	
				Critical error if clinical assessment tool = 20 and clinical assessment score value not in the range 04 and 18	
				Critical error if clinical assessment tool = 31 and clinical assessment score value not in the range 00 and 04	
				Critical error if clinical assessment tool = 32 and clinical assessment score value not in the range 00 and 04	
				Critical error if clinical assessment tool = 30 and clinical assessment score value not in the range 00 and 48	
				Critical error if clinical assessment tool is blank and clinical assessment score is not equal 00	

The following table provides the preferred naming convention to be applied to the data extract files and nominated dates when extracted data should have been supplied to the study team. As a result of delays in collection initiation the project timelines were extend to ensure the study captured a statistically relevant volume that covered the desired Tier 2 coverage and subacute care type. In elongating the project time line the decision was made to provide 2 tranches of data. Tranche 1 being made available to IHPA by October 30th and Tranche 2 a cumulative dataset that was transferred on December 6th.

Information system extract	Preferred Naming Convention	Date of data submission
Radiology System	RIS<Hospital Name><Period to which extraction relates (dd_mm-dd_mm)> e.g. RISWWH01_07-30_07	The RIS extract is to be supplied to the Jurisdictional representatives 14 days after the end of each month and at the conclusion of the study. Submission dates are: • Wednesday 14th August 2013 covering the July data collection period • Monday 16th September 2013 covering any outstanding July or August data • Friday 15th November 2013.
Laboratory System	LIS<Hospital Name><Period to which extraction relates (dd_mm-dd_mm)> e.g. LISWWH01_07-30_07	The extract from LIS is to be supplied to the EY Jurisdictional Officer 14 days after the end of each month and at the conclusion of the study. Submission dates are: • Wednesday 14th August 2013 covering the July data collection period • Monday 16th September 2013 covering any outstanding July or August data • Friday 15th November 2013.
Pharmacy System	PHARM<Hospital Name><Period to which extraction relates (dd_mm-dd_mm)> e.g. PHARMWWH01_07-30_07	The pharmacy extract is to be supplied to the EY Jurisdictional Officer 14 days after the end of each month and at the conclusion of the study. Submission dates are: • Wednesday 14th August 2013 covering the July data collection period • Monday 16th September 2013 covering any outstanding July or August data • Friday 15th November 2013.
Allied Health System	AHP<Hospital Name><Period to which extraction relates (dd_mm-dd_mm)> e.g. AHPWWH01_07-	This extract is to be supplied to the EY Jurisdictional Officer 14 days after the end of each month and at the conclusion of the study. Submission dates are:

Information system extract	Preferred Naming Convention	Date of data submission
	30_07	• Wednesday 14th August 2013 covering the July data collection period • Monday 16th September 2013 covering any outstanding July or August data • Friday 15th November 2013.
Patient Administration System	PAS<Hospital Name><Period to which extraction relates (dd_mm-dd_mm)> e.g. PASWWH01_07-30_07	This extract is to be supplied to the EY Jurisdictional Officer 14 days after the end of each month and at the conclusion of the study. Submission dates are: • Wednesday 14th August 2013 covering the July data collection period • Monday 16th September 2013 covering any outstanding July or August data • Friday 15th November 2013.
Dependency Information System	DEP<Hospital Name><Period to which extraction relates (dd_mm-dd_mm)> e.g. DEPWWH01_07-30_07	This extract is to be supplied to the EY Jurisdictional Officer 14 days after the end of each month and at the conclusion of the study. Submission dates are: • Wednesday 14th August 2013 covering the July data collection period • Monday 16th September 2013 covering any outstanding July or August data • Friday 15th November 2013

Appendix K   Confidentiality Undertaking

THIS CONFIDENTIALTY UNDERTAKING is made and effective _____ 2013 ("Effective Date")

Ernst and Young of [INSERT ADDRESS AND ABN] ("Receiving Party") UNDERTAKES to comply with the obligations contained in this Confidentially Undertaking.

HOSPITAL NAME {INSERT ADDRESS} will be disclosing to the Receiving Party confidential or proprietary information belonging to HOSPITAL NAME to enable the Receiving Party to cost non-admitted and subacute admitted services and to hand the dataset to the Independent Hospital Pricing Authority for the purposes of setting a National Efficient Price and further classification development and refinement.

Because of the confidential nature of such information, the Receiving Party agrees and undertakes to treat these disclosures as being subject to the following conditions:

- Definition. "Confidential Information" is defined as any information disclosed by the Hospital to the Receiving Party. Such confidentiality obligations apply without limitation to written documentation, oral disclosures, disclosures made by visual observation and disclosures in electronic form.

- Exceptions. Confidential Information shall not include any information that:

  e.   is already known to the Receiving Party at the time of disclosure; or

  f.   is generally available to the public or becomes publicly known through no wrongful act of the Receiving Party; or

  g.   is received by the Receiving Party from a third-party who had a legal right to provide it.

- Use; Disclosure. The Receiving Party agrees to use the Hospital's Confidential Information disclosed to it solely for the purposes of the national non-admitted and subacute admitted study where requested by Ernst and Young in the provision of a response to the Head Agreement with the Independent Hospital Pricing Authority, and without the written consent of the Hospital, agrees not to disclose such Confidential Information to any other person or entity other than Ernst and Young employees, Hospital employees, relevant state and territory health authorities (corresponding to the jurisdiction in which the hospital operates) and employees of the Independent Hospital Pricing Authority who must have access to such Confidential Information for price setting, classification development and contractual purposes. All such employees shall be bound to maintain such Confidential Information in confidence and the Receiving Party will take such reasonable steps to require its employees to preserve such trust and confidence.

- Protection; Return. The Receiving Party shall in all respects treat such Confidential Information disclosed to it hereunder at least as carefully as that accorded its own trade secrets or confidential information and will carry out with respect to it those security measures that it follows for its own trade secrets or confidential information. At the termination of this Confidentiality Undertaking or within thirty (30) days of receipt of a written request from the Hospital, the Receiving Party will return to the Hospital all Confidential Information disclosed to it under this Confidentiality Undertaking, limited to information stored in electronic form.

- Term. The term of this Confidentiality Undertaking shall be six (6) months from the Effective Date.

- Remedies. The Receiving Party agrees that the Confidential Information disclosed by the Hospital under this Confidentiality Undertaking is of a special, unique and intellectual character, the loss of which cannot be reasonably or adequately compensated in damages

in an action at law. Accordingly, it is agreed that the Hospital shall be entitled to seek an injunction or injunctions to prevent breaches of this Confidentiality Undertaking and to enforce specifically the terms and provisions of this Confidentiality Undertaking in any court having jurisdiction, this being in addition to any other remedy to which the Hospital is entitled at law or in equity.

- Completeness. This Confidentiality Undertaking contains the entire understanding between the parties related to the subject matter hereof, and supersedes all prior written and verbal negotiations, representations, and agreements concerning the subject matter.

- Miscellaneous.

    h. Amendment. The obligations of this Confidentiality Undertaking shall not be altered, amended or superseded by any subsequent agreement except by written instrument signed by both parties.

    i. Rights Not Conveyed. Confidential Information shall at all times remain the property of the Independent Hospital Pricing Authority.

    j. Further Agreements. Neither party is obligated to enter into any further agreements with the other party by virtue of entering into this Confidentiality Undertaking. Any intention of the parties to proceed with a further business arrangement shall be set forth in a separate written agreement signed by authorized representatives of both parties.

    k. Severability. If any provision of this Confidentiality Undertaking is declared void, or otherwise unenforceable, such provision shall be deemed to have been severed from this Confidentiality Undertaking, which shall otherwise remain in full force and effect.

- Laws: This Confidentiality Undertaking shall be governed by the laws of New South Wales, Australia.

This Confidentiality Undertaking has been executed by the Receiving Party through its authorized representatives and is effective as of the Effective Date set forth above.

FULL NAME PTY LIMITED

By: _____ Name: _____ Title: _____

Appendix L   Non-admitted time based data – Medical

Clinic Code	Description	Total Medical Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
10.01	Hyperbaric medicine	73,719	99.89	0	270	51.16	738
10.02	Interventional imaging	2,271	26.41	0	270	48.96	86
10.03	Minor surgical	15,694	29.33	0	220	35.17	535
10.04	Dental	419,783	39.27	0	420	38.42	10,690
10.05	Angioplasty/angiography	9,391	73.94	0	200	49.88	127
10.06	Endoscopy – gastrointestinal	157,961	112.27	0	5760	354.58	1,407
10.07	Endoscopy - urological/gynaecological	26,146	16.41	0	95	12.55	1,593
10.08	Endoscopy – orthopaedic	656	31.24	0	45	11.99	21
10.09	Endoscopy - respiratory/ENT	10,250	33.06	0	180	21.08	310
10.1	Renal dialysis - hospital delivered	14,300	12.14	0	240	24.01	1,178
10.11	Medical oncology (treatment)	11,920	2.24	0	390	13.81	5,318
10.12	Radiation oncology (treatment)	52,090	2.28	0	245	10.96	22,807
10.13	Minor medical procedures	5,018	8.56	0	85	13.06	586
10.14	Pain management interventions	703	58.58	0	115	34.15	12
10.15	Renal dialysis - haemodialysis - home delivered	235	1.84	0	50	9.15	128
10.17	Total parenteral nutrition - home delivered	120	1.33	0	30	5.65	90
20.01	Transplants	52,160	24.56	0	197	24.29	2,124
20.02	Anaesthetics	39,723	21.74	0	155	18.80	1,827
20.03	Pain management	71,084	34.26	0	380	39.88	2,075
20.04	Developmental disabilities	5,795	68.18	0	650	121.58	85
20.05	General medicine	131,445	13.90	0	240	20.18	9,459
20.06	General practice and primary care	3,632	21.24	0	90	18.86	171
20.07	General surgery	191,017	19.02	0	210	13.46	10,041
20.08	Genetics	177,245	24.73	0	540	43.18	7,166
20.09	Geriatric medicine	48,773	29.69	0	215	32.40	1,643
20.1	Haematology	119,956	19.63	0	310	15.28	6,111
20.11	Paediatric medicine	127,428	22.13	0	180	23.23	5,758
20.12	Paediatric surgery	8,554	13.20	0	85	11.70	648
20.13	Palliative care	21,207	17.51	0	270	35.30	1,211
20.14	Epilepsy	11,113	23.85	0	180	31.20	466
20.15	Neurology	97,955	33.80	0	215	27.09	2,898
20.16	Neurosurgery	59,613	21.65	0	180	18.96	2,754
20.17	Ophthalmology	285,227	16.64	0	220	12.64	17,146
20.18	Ear, nose and throat (ENT)	79,902	18.28	0	120	14.02	4,370
20.19	Respiratory	100,317	21.33	0	290	21.43	4,702
20.2	Respiratory - cystic fibrosis	19,260	34.39	0	161	20.45	560
20.21	Anti-coagulant screening and management	472	5.49	0	17	2.35	86
20.22	Cardiology	146,422	21.81	0	170	23.37	6,714
20.23	Cardiothoracic	1,358	15.61	0	70	15.46	87
20.24	Vascular surgery	35,935	15.48	0	130	13.63	2,321
20.25	Gastroenterology	99,041	21.10	0	440	20.47	4,693
20.26	Hepatobiliary	47,051	16.38	0	195	16.74	2,872
20.27	Craniofacial	28,372	22.25	0	230	26.12	1,275
20.28	Metabolic bone	5,571	36.89	0	90	23.52	151
20.29	Orthopaedics	226,216	14.26	0	120	13.24	15,866
20.3	Rheumatology	89,679	28.57	0	180	19.97	3,139
20.31	Spinal	8,522	33.95	0	340	45.99	251
20.32	Breast	72,546	25.98	0	246	21.69	2,792
20.33	Dermatology	89,311	19.03	0	220	16.01	4,692
20.34	Endocrinology	122,044	17.98	0	180	19.42	6,786
20.35	Nephrology	132,319	21.50	0	130	17.37	6,155
20.36	Urology	50,394	8.34	0	115	11.43	6,040

Clinic Code	Description	Total Medical Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
20.38	Gynaecology	155,628	24.66	0	220	20.03	6,311
20.39	Gynaecology oncology	28,241	26.03	0	190	24.82	1,085
20.4	Obstetrics	309,624	14.78	0	264	16.27	20,937
20.41	Immunology	65,830	30.10	0	181	29.33	2,187
20.42	Medical oncology (consultation)	222,075	17.53	0	360	20.23	12,668
20.43	Radiation oncology (consultation)	80,670	20.41	0	249	21.16	3,953
20.44	Infectious diseases	53,354	18.31	0	309	20.43	2,914
20.45	Psychiatry	42,376	26.19	0	200	27.93	1,618
20.46	Plastic and reconstructive surgery	71,081	11.19	0	145	12.31	6,352
20.47	Rehabilitation	60,429	30.94	0	210	34.36	1,953
20.48	Multidisciplinary burns clinic	2,098	7.26	0	180	15.16	289
20.49	Geriatric evaluation and management (GEM)	1,430	46.13	20	70	15.37	31
20.51	Sleep disorders	32,245	20.92	0	95	17.76	1,541
30.01	General imaging	7,097	34.29	0	140	22.21	207
30.05	Pathology	0	0.00	0	0	0.00	211
30.08	Clinical measurement	46,495	16.80	0	210	21.97	2,767
40.01	Aboriginal and Torres Strait Island people health clinic	989	24.12	0	50	13.49	41
40.02	Aged care assessment	2,779	3.34	0	130	13.32	831
40.03	Aids and Appliances	300	0.54	0	70	4.83	560
40.04	Clinical Pharmacy	279	0.06	0	40	1.21	4,378
40.05	Hydrotherapy	0	0.00	0	0	0.00	493
40.06	Occupational therapy	391	0.06	0	60	1.37	6,233
40.07	Pre-Admission and Pre-Anaesthesia	99,648	15.40	0	175	18.16	6,469
40.08	Primary health care	3,792	1.65	0	120	9.18	2,302
40.09	Physiotherapy	5,392	0.24	0	130	2.99	22,646
40.1	Sexual Health	9,899	7.57	0	75	12.83	1,308
40.11	Social Work	3,647	0.58	0	160	4.76	6,256
40.12	Rehabilitation	9,773	0.94	0	135	7.58	10,377
40.13	Wound management	7,566	7.25	0	130	12.85	1,043
40.14	Neuropsychology	0	0.00	0	0	0.00	61
40.15	Optometry	0	0.00	0	0	0.00	3,662
40.16	Orthoptics	1,161	0.91	0	35	4.04	1,272
40.17	Audiology	1,049	0.54	0	60	4.30	1,931
40.18	Speech pathology	2,305	0.66	0	170	5.56	3,487
40.19	Asthma	251	2.76	0	45	9.78	91
40.2	COPD	0	0.00	0	0	0.00	32
40.21	Cardiac rehabilitation	3,925	1.94	0	240	11.46	2,019
40.22	Stomal therapy	77	0.31	0	30	2.82	246
40.23	Nutrition/dietetics	491	0.07	0	60	1.64	6,743
40.24	Orthotics	352	0.22	0	80	3.44	1,611
40.25	Podiatry	2,857	0.70	0	120	5.65	4,078
40.26	Diabetes	7,746	6.61	0	80	14.64	1,172
40.27	Family planning	3,606	18.49	0	85	17.60	195
40.28	Midwifery and maternity	41,416	2.55	0	330	11.98	16,211
40.29	Psychology	1,872	0.98	0	120	7.25	1,901
40.3	Alcohol and other drugs	8,182	0.82	0	130	5.64	9,928
40.31	Burns	7,544	1.13	0	165	5.17	6,682
40.32	Continence	1,569	2.02	0	130	10.47	777
40.34	Specialist mental health	132,947	7.23	0	160	17.10	18,376
40.35	Palliative care	25,113	6.56	0	295	22.36	3,826
40.36	Geriatric evaluation and management (GEM)	745	2.52	0	110	13.70	296
40.37	Psychogeriatric	0	0.00	0	0	0.00	252
40.38	Infectious diseases	25	0.37	0	15	1.99	68
40.39	Neurology	0	0.00	0	0	0.00	1,064
40.4	Respiratory	3,264	1.62	0	58	5.64	2,013

Clinic Code	Description	Total Medical Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
40.41	Gastroenterology	0	0.00	0	0	0.00	101
40.42	Circulatory	1,808	3.78	0	125	11.01	478
40.44	Orthopaedics	40	0.01	0	15	0.34	4,710
40.46	Endocrinology	13,113	7.07	0	80	14.08	1,856
40.47	Nephrology	57	0.04	0	25	0.85	1,292
40.48	Haematology and immunology	4,566	4.89	0	60	10.04	934
40.49	Gynaecology	15,103	14.98	0	221	23.79	1,008
40.5	Urology	48	0.26	0	25	2.48	187
40.51	Breast	5,189	9.63	0	160	23.54	539
40.52	Oncology	1,992	0.16	0	120	2.22	12,552
40.53	General medicine	442	0.13	0	60	2.19	3,382
40.54	General surgery	0	0.00	0	0	0.00	2,226
40.55	Paediatrics	4,888	5.94	0	105	13.22	823
40.56	Falls prevention	0	0.00	0	0	0.00	548
40.58	Hospital avoidance programs	180	0.09	0	130	3.05	1,955
40.59	Post-acute care	778	11.61	0	52	12.81	67
50.01	Other non--admitted clinic not specified above	0	0.00	0	0	0.00	11,057
Total Medical Time – Individual Encounters		5,224,745	11.60	0	5760	28.83	450,429

Distribution of total recorded time including episodes where medical time was not represented– by tier 2 clinic

* As identified on page 12 of this report, the study did not receive sufficient clinic specific volume to rely on the above for those clinics.

Appendix M   Non-admitted time based data – Nursing

Clinic Code	Description	Total Nursing Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
10.01	Hyperbaric medicine	153,166	207.54	0	610	99.58	738
10.02	Interventional imaging	3,877	45.08	0	480	75.36	86
10.03	Minor surgical	23,234	43.43	0	436	82.87	535
10.04	Dental	383,853	35.91	0	460	35.51	10,690
10.05	Angioplasty/angiography	12,951	101.98	10	280	49.34	127
10.06	Endoscopy - gastrointestinal	391,633	278.35	0	12240	725.83	1,407
10.07	Endoscopy - urological/gynaecological	16,743	10.51	0	145	16.52	1,593
10.08	Endoscopy - orthopaedic	339	16.14	0	31	9.09	21
10.09	Endoscopy - respiratory/ENT	5,503	17.75	0	55	8.09	310
10.1	Renal dialysis - hospital delivered	45,905	38.97	0	510	52.35	1,178
10.11	Medical oncology (treatment)	496,130	93.29	0	670	89.61	5,318
10.12	Radiation oncology (treatment)	87,572	3.84	0	505	15.61	22,807
10.13	Minor medical procedures	30,552	52.14	0	750	75.09	586
10.14	Pain management interventions	110	9.17	0	20	5.15	12
10.15	Renal dialysis - haemodialysis - home delivered	26,664	208.31	7	870	185.29	128
10.17	Total parenteral nutrition - home delivered	3,283	36.48	5	180	30.19	90
20.01	Transplants	40,230	18.94	0	434	31.36	2,124
20.02	Anaesthetics	28,491	15.59	0	90	11.85	1,827
20.03	Pain management	30,457	14.68	0	400	39.32	2,075
20.04	Developmental disabilities	552	6.49	0	70	16.34	85
20.05	General medicine	154,603	16.34	0	370	29.67	9,459
20.06	General practice and primary care	3,391	19.83	0	205	27.19	171
20.07	General surgery	68,123	6.78	0	267	11.93	10,041
20.08	Genetics	10,387	1.45	0	180	6.88	7,166
20.09	Geriatric medicine	29,599	18.02	0	150	24.00	1,643
20.1	Haematology	91,579	14.99	0	510	47.07	6,111
20.11	Paediatric medicine	50,714	8.81	0	132	12.98	5,758
20.12	Paediatric surgery	3,153	4.87	0	85	9.78	648
20.13	Palliative care	28,316	23.38	0	480	41.89	1,211
20.14	Epilepsy	4,620	9.91	0	150	18.13	466
20.15	Neurology	26,367	9.10	0	425	25.38	2,898
20.16	Neurosurgery	12,870	4.67	0	145	13.35	2,754
20.17	Ophthalmology	167,555	9.77	0	130	9.86	17,146
20.18	Ear, nose and throat (ENT)	18,608	4.26	0	70	6.91	4,370
20.19	Respiratory	48,912	10.40	0	634	34.11	4,702
20.2	Respiratory - cystic fibrosis	12,331	22.02	0	134	20.78	560
20.21	Anti-coagulant screening and management	275	3.20	0	10	1.96	86
20.22	Cardiology	75,813	11.29	0	570	24.25	6,714
20.23	Cardiothoracic	1,840	21.15	0	120	28.11	87
20.24	Vascular surgery	22,031	9.49	0	175	15.35	2,321
20.25	Gastroenterology	55,079	11.74	0	445	32.28	4,693
20.26	Hepatobiliary	28,004	9.75	0	190	15.88	2,872
20.27	Craniofacial	4,616	3.62	0	70	9.03	1,275
20.28	Metabolic bone	2,132	14.11	0	120	20.81	151
20.29	Orthopaedics	95,193	6.00	0	170	9.82	15,866
20.3	Rheumatology	18,153	5.78	0	120	10.85	3,139
20.31	Spinal	2,575	10.26	0	340	33.51	251
20.32	Breast	37,427	13.41	0	180	19.19	2,792

Clinic Code	Description	Total Nursing Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
20.33	Dermatology	25,562	5.45	0	120	11.37	4,692
20.34	Endocrinology	93,690	13.81	0	217	19.63	6,786
20.35	Nephrology	77,091	12.52	0	425	23.26	6,155
20.36	Urology	83,461	13.82	0	270	20.37	6,040
20.38	Gynaecology	59,524	9.43	0	340	19.44	6,311
20.39	Gynaecology oncology	22,549	20.78	0	180	23.26	1,085
20.4	Obstetrics	323,452	15.45	0	290	23.08	20,937
20.41	Immunology	56,463	25.82	0	455	43.04	2,187
20.42	Medical oncology (consultation)	339,385	26.79	0	925	51.50	12,668
20.43	Radiation oncology (consultation)	16,373	4.14	0	98	8.48	3,953
20.44	Infectious diseases	42,948	14.74	0	215	20.06	2,914
20.45	Psychiatry	10,935	6.76	0	210	20.57	1,618
20.46	Plastic and reconstructive surgery	45,191	7.11	0	230	12.68	6,352
20.47	Rehabilitation	7,240	3.71	0	321	15.41	1,953
20.48	Multidisciplinary burns clinic	9,749	33.73	0	150	28.88	289
20.49	Geriatric evaluation and management (GEM)	60	1.94	0	30	6.41	31
20.51	Sleep disorders	12,657	8.21	0	246	20.81	1,541
30.01	General imaging	10	0.05	0	10	0.70	207
30.05	Pathology	0	0.00	0	0	0.00	211
30.08	Clinical measurement	31,491	11.38	0	300	21.82	2,767
40.01	Aboriginal and Torres Strait Island people health clinic	667	16.27	0	50	14.27	41
40.02	Aged care assessment	12,598	15.16	0	315	38.03	831
40.03	Aids and Appliances	222	0.40	0	70	4.66	560
40.04	Clinical Pharmacy	580	0.13	0	200	4.00	4,378
40.05	Hydrotherapy	0	0.00	0	0	0.00	493
40.06	Occupational therapy	443	0.07	0	65	1.60	6,233
40.07	Pre-Admission and Pre-Anaesthesia	204,748	31.65	0	155	19.14	6,469
40.08	Primary health care	79,471	34.52	0	420	36.36	2,302
40.09	Physiotherapy	6,490	0.29	0	180	4.73	22,646
40.1	Sexual Health	13,948	10.66	0	125	14.98	1,308
40.11	Social Work	5,056	0.81	0	225	7.96	6,256
40.12	Rehabilitation	118,411	11.41	0	490	30.59	10,377
40.13	Wound management	43,970	42.16	0	310	43.33	1,043
40.14	Neuropsychology	0	0.00	0	0	0.00	61
40.15	Optometry	0	0.00	0	0	0.00	3,662
40.16	Orthoptics	1,728	1.36	0	50	5.95	1,272
40.17	Audiology	494	0.26	0	57	2.50	1,931
40.18	Speech pathology	400	0.11	0	100	2.35	3,487
40.19	Asthma	6,272	68.92	0	150	33.35	91
40.2	COPD	680	21.25	2	40	10.11	32
40.21	Cardiac rehabilitation	61,580	30.50	0	400	49.54	2,019
40.22	Stomal therapy	8,330	33.86	0	130	18.55	246
40.23	Nutrition/dietetics	4,341	0.64	0	180	5.52	6,743
40.24	Orthotics	180	0.11	0	180	4.48	1,611
40.25	Podiatry	4,410	1.08	0	120	6.31	4,078
40.26	Diabetes	21,956	18.73	0	420	24.11	1,172
40.27	Family planning	3,891	19.95	0	120	19.09	195
40.28	Midwifery and maternity	654,976	40.40	0	360	38.69	16,211
40.29	Psychology	11,395	5.99	0	150	17.84	1,901
40.3	Alcohol and other drugs	66,546	6.70	0	147	10.52	9,928
40.31	Burns	36,681	5.49	0	275	15.81	6,682

Clinic Code	Description	Total Nursing Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
40.32	Continence	23,867	30.72	0	215	28.96	777
40.34	Specialist mental health	416,855	22.68	0	365	35.75	18,376
40.35	Palliative care	107,575	28.12	0	1190	83.08	3,826
40.36	Geriatric evaluation and management (GEM)	5,125	17.31	0	225	32.00	296
40.37	Psychogeriatric	0	0.00	0	0	0.00	252
40.38	Infectious diseases	1,205	17.72	0	50	10.00	68
40.39	Neurology	1,710	1.61	0	90	8.26	1,064
40.4	Respiratory	17,035	8.46	0	130	14.23	2,013
40.41	Gastroenterology	0	0.00	0	0	0.00	101
40.42	Circulatory	16,013	33.50	0	420	65.08	478
40.44	Orthopaedics	344	0.07	0	130	2.30	4,710
40.46	Endocrinology	41,150	22.17	0	300	32.77	1,856
40.47	Nephrology	2,137	1.65	0	120	10.47	1,292
40.48	Haematology and immunology	17,965	19.23	0	145	19.30	934
40.49	Gynaecology	10,877	10.79	0	160	16.06	1,008
40.5	Urology	5,055	27.03	0	475	66.02	187
40.51	Breast	15,454	28.67	0	245	26.98	539
40.52	Oncology	47,394	3.78	0	257	9.45	12,552
40.53	General medicine	46,340	13.70	0	270	23.32	3,382
40.54	General surgery	10	0.00	0	10	0.21	2,226
40.55	Paediatrics	11,076	13.46	0	156	22.48	823
40.56	Falls prevention	0	0.00	0	0	0.00	548
40.58	Hospital avoidance programs	64,716	33.10	0	490	52.43	1,955
40.59	Post-acute care	1,174	17.52	0	100	18.81	67
50.01	Other non--admitted clinic not specified above	0	0.00	0	0	0.00	11057
Total Nursing Time – Individual Encounters		6,336,883	14.07	0	12240	53.54	450,429

Distribution of total recorded time including episodes where nursing time was not represented– by tier 2 clinic

* As identified on page 12 of this report, the study did not receive sufficient clinic specific volume to rely on the above for those clinics

Appendix N   Non-admitted time based data – Allied Health

Clinic Code	Description	Total Allied Health Professional Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
10.01	Hyperbaric medicine	89,602	121.41	0	315	62.33	738
10.02	Interventional imaging	3,139	36.50	0	480	76.63	86
10.03	Minor surgical	3,894	7.28	0	190	20.98	535
10.04	Dental	246,477	23.06	0	585	60.58	10,690
10.05	Angioplasty/angiography	6,596	51.94	0	200	58.29	127
10.06	Endoscopy - gastrointestinal	15,646	11.12	0	80	16.76	1,407
10.07	Endoscopy - urological/gynaecological	2,575	1.62	0	540	18.37	1,593
10.08	Endoscopy - orthopaedic	0	0.00	0	0	0.00	21
10.09	Endoscopy - respiratory/ENT	35	0.11	0	20	1.42	310
10.1	Renal dialysis - hospital delivered	2,518	2.14	0	90	9.70	1,178
10.11	Medical oncology (treatment)	7,241	1.36	0	140	7.75	5,318
10.12	Radiation oncology (treatment)	1,084,685	47.56	0	865	56.35	22,807
10.13	Minor medical procedures	20	0.03	0	10	0.58	586
10.14	Pain management interventions	0	0.00	0	0	0.00	12
10.15	Renal dialysis - haemodialysis - home delivered	0	0.00	0	0	0.00	128
10.17	Total parenteral nutrition - home delivered	0	0.00	0	0	0.00	90
20.01	Transplants	1,371	0.65	0	70	3.87	2,124
20.02	Anaesthetics	487	0.27	0	31	2.29	1,827
20.03	Pain management	64,645	31.15	0	915	86.75	2,075
20.04	Developmental disabilities	26,695	314.06	0	1780	439.95	85
20.05	General medicine	36,803	3.89	0	585	16.69	9,459
20.06	General practice and primary care	0	0.00	0	0	0.00	171
20.07	General surgery	5,691	0.57	0	138	6.09	10,041
20.08	Genetics	117,302	16.37	0	330	27.26	7,166
20.09	Geriatric medicine	40,133	24.43	0	480	49.52	1,643
20.1	Haematology	3,442	0.56	0	107	4.87	6,111
20.11	Paediatric medicine	44,473	7.72	0	330	25.26	5,758
20.12	Paediatric surgery	1,243	1.92	0	60	8.40	648
20.13	Palliative care	28,297	23.37	0	240	40.78	1,211
20.14	Epilepsy	8,510	18.26	0	330	38.77	466
20.15	Neurology	14,526	5.01	0	493	28.25	2,898
20.16	Neurosurgery	5,920	2.15	0	155	11.07	2,754
20.17	Ophthalmology	56,551	3.30	0	150	7.52	17,146
20.18	Ear, nose and throat (ENT)	19,500	4.46	0	180	15.03	4,370
20.19	Respiratory	15,643	3.33	0	120	11.28	4,702
20.2	Respiratory - cystic fibrosis	13,936	24.89	0	310	28.86	560
20.21	Anti-coagulant screening and management	284	3.30	0	10	1.82	86
20.22	Cardiology	73,807	10.99	0	1130	27.16	6,714
20.23	Cardiothoracic	30	0.34	0	30	3.22	87
20.24	Vascular surgery	3,205	1.38	0	100	7.53	2,321
20.25	Gastroenterology	7,687	1.64	0	150	8.80	4,693
20.26	Hepatobiliary	5,006	1.74	0	120	9.75	2,872
20.27	Craniofacial	4,562	3.58	0	60	10.86	1,275
20.28	Metabolic bone	412	2.72	0	60	9.68	151
20.29	Orthopaedics	101,143	6.37	0	305.46	16.60	15,866
20.3	Rheumatology	1,179	0.38	0	70	3.87	3,139
20.31	Spinal	4,093	16.31	0	780	70.01	251

Clinic Code	Description	Total Allied Health Professional Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
20.32	Breast	4,828	1.73	0	150	9.64	2,792
20.33	Dermatology	2,752	0.59	0	150	6.19	4,692
20.34	Endocrinology	34,233	5.04	0	290	20.06	6,786
20.35	Nephrology	14,525	2.36	0	183	10.85	6,155
20.36	Urology	8,074	1.34	0	155	9.32	6,040
20.38	Gynaecology	4,367	0.69	0	145	6.19	6,311
20.39	Gynaecology oncology	5,078	4.68	0	180	18.50	1,085
20.4	Obstetrics	41,988	2.00	0	123	8.71	20,937
20.41	Immunology	2,960	1.35	0	240	10.70	2,187
20.42	Medical oncology (consultation)	54,111	4.27	0	303	20.21	12,668
20.43	Radiation oncology (consultation)	1,169	0.30	0	120	3.39	3,953
20.44	Infectious diseases	1,811	0.62	0	180	6.92	2,914
20.45	Psychiatry	32,316	19.97	0	230	33.84	1,618
20.46	Plastic and reconstructive surgery	46,937	7.39	0	240	19.03	6,352
20.47	Rehabilitation	57,302	29.34	0	480	60.22	1,953
20.48	Multidisciplinary burns clinic	3,305	11.44	0	150	23.37	289
20.49	Geriatric evaluation and management (GEM)	0	0.00	0	0	0.00	31
20.51	Sleep disorders	11,462	7.44	0	705	45.11	1,541
30.01	General imaging	11,429	55.21	0	140	29.62	207
30.05	Pathology	1,890	8.96	5.29	30	4.37	211
30.08	Clinical measurement	58,962	21.31	0	530	38.30	2,767
40.01	Aboriginal and Torres Strait Island people health clinic	1,596	38.93	12	290	50.04	41
40.02	Aged care assessment	44,046	53.00	0	702	69.38	831
40.03	Aids and Appliances	62,260	111.18	0	660	102.13	560
40.04	Clinical Pharmacy	104,963	23.98	0	150	23.71	4,378
40.05	Hydrotherapy	4,755	9.65	5.45	49	8.77	493
40.06	Occupational therapy	318,977	51.18	0	630	41.89	6,233
40.07	Pre-Admission and Pre-Anaesthesia	21,622	3.34	0	115	8.39	6,469
40.08	Primary health care	47,506	20.64	0	290	40.93	2,302
40.09	Physiotherapy	841,960	37.18	0	740	32.10	22,646
40.1	Sexual Health	11,256	8.61	0	180	20.09	1,308
40.11	Social Work	317,101	50.69	0	775	43.84	6,256
40.12	Rehabilitation	646,962	62.35	0	810	64.85	10,377
40.13	Wound management	10,493	10.06	0	325	32.45	1,043
40.14	Neuropsychology	5,729	93.92	5	300	91.23	61
40.15	Optometry	105,272	28.75	6	135	13.81	3,662
40.16	Orthoptics	41,954	32.98	0	150	19.48	1,272
40.17	Audiology	113,404	58.73	0	525	52.26	1,931
40.18	Speech pathology	239,627	68.72	0	1120	74.41	3,487
40.19	Asthma	0	0.00	0	0	0.00	91
40.2	COPD	0	0.00	0	0	0.00	32
40.21	Cardiac rehabilitation	110,312	54.64	0	600	77.35	2,019
40.22	Stomal therapy	770	3.13	0	420	29.75	246
40.23	Nutrition/dietetics	298,588	44.28	0	420	31.50	6,743
40.24	Orthotics	87,382	54.24	0	430	48.11	1,611
40.25	Podiatry	229,105	56.18	0	400	39.67	4,078
40.26	Diabetes	4,178	3.56	0	1220	38.64	1,172
40.27	Family planning	40	0.21	0	20	2.02	195
40.28	Midwifery and maternity	124,488	7.68	0	580	24.17	16,211
40.29	Psychology	88,927	46.78	0	270	40.38	1,901

Clinic Code	Description	Total Allied Health Professional Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
40.3	Alcohol and other drugs	58,108	5.85	0	200	19.41	9,928
40.31	Burns	246,430	36.88	0	280	29.32	6,682
40.32	Continence	90	0.12	0	60	2.41	777
40.34	Specialist mental health	463,370	25.22	0	350	40.03	18,376
40.35	Palliative care	103,385	27.02	0	584	41.39	3,826
40.36	Geriatric evaluation and management (GEM)	16,255	54.92	0	390	58.45	296
40.37	Psychogeriatric	18,179	72.14	6	314	65.00	252
40.38	Infectious diseases	0	0.00	0	0	0.00	68
40.39	Neurology	90,436	85.00	0	1050	147.04	1,064
40.4	Respiratory	19,596	9.73	0	217	24.47	2,013
40.41	Gastroenterology	4,805	47.57	10	195	38.85	101
40.42	Circulatory	14,940	31.26	0	500	46.66	478
40.44	Orthopaedics	253,801	53.89	0	600	44.81	4,710
40.46	Endocrinology	31,247	16.84	0	350	26.42	1,856
40.47	Nephrology	70,581	54.63	0	420	36.18	1292
40.48	Haematology and immunology	7,299	7.81	0	190	21.70	934
40.49	Gynaecology	5,435	5.39	0	120	16.46	1,008
40.5	Urology	5,780	30.91	0	120	25.05	187
40.51	Breast	4,576	8.49	0	190	21.68	539
40.52	Oncology	261,884	20.86	0	450	30.79	12,552
40.53	General medicine	121,042	35.79	0	360	40.03	3,382
40.54	General surgery	83,800	37.65	0	255	28.10	2,226
40.55	Paediatrics	14,410	17.51	0	435	40.67	823
40.56	Falls prevention	13,311	24.29	5.36	112.5	18.64	548
40.58	Hospital avoidance programs	72,050	36.85	0	270	48.52	1,955
40.59	Post-acute care	425	6.34	0	45	11.32	67
50.01	Other non--admitted clinic not specified above	615,584	55.67	5.14	522	43.90	11,057
Total Allied Health Professional Time – Individual Encounters		**9,048,592**	**20.09**	**0**	**1780**	**40.18**	**450,429**

Distribution of total recorded time including episodes where allied health time was not represented– by tier 2 clinic
* As identified on page 12 of this report, the study did not receive sufficient clinic specific volume to rely on the above for those clinics

Appendix O   Non-admitted time data – Medical Encounters

Clinic Code	Description	Total Medical Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
10.01	Hyperbaric medicine	73,719	105.31	5	270	46.78	700
10.02	Interventional imaging	2,271	55.39	8	270	58.73	41
10.03	Minor surgical	15,694	32.29	2	220	35.59	486
10.04	Dental	419,783	49.44	1	420	36.82	8,490
10.05	Angioplasty/angiography	9,391	92.07	30	200	37.66	102
10.06	Endoscopy – gastrointestinal	157,961	118.23	3	5760	362.91	1,336
10.07	Endoscopy - urological/gynaecological	26,146	17.29	2	95	12.27	1,512
10.08	Endoscopy – orthopaedic	656	32.80	10	45	9.87	20
10.09	Endoscopy - respiratory/ENT	10,250	35.10	5	180	20.00	292
10.1	Renal dialysis - hospital delivered	14,300	41.57	5	240	27.42	344
10.11	Medical oncology (treatment)	11,920	36.01	1	390	43.03	331
10.12	Radiation oncology (treatment)	52,090	29.26	2	245	27.38	1,780
10.13	Minor medical procedures	5,018	19.15	1	85	13.36	262
10.14	Pain management interventions	703	63.91	10	115	30.13	11
10.15	Renal dialysis - haemodialysis - home delivered	235	47.00	45	50	2.74	5
10.17	Total parenteral nutrition - home delivered	120	24.00	20	30	5.48	5
20.01	Transplants	52,160	32.44	1	197	22.89	1,608
20.02	Anaesthetics	39,723	28.74	1	155	16.31	1,382
20.03	Pain management	71,084	50.52	1	380	39.04	1,407
20.04	Developmental disabilities	5,795	170.44	15	650	140.24	34
20.05	General medicine	131,445	26.61	1	240	21.01	4,940
20.06	General practice and primary care	3,632	32.43	15	90	13.36	112
20.07	General surgery	191,017	20.77	1	210	12.71	9,196
20.08	Genetics	177,245	42.16	1	540	49.43	4,204
20.09	Geriatric medicine	48,773	50.54	3	215	27.06	965
20.1	Haematology	119,956	23.75	1	310	13.59	5,051
20.11	Paediatric medicine	127,428	33.98	1	180	20.64	3,750
20.12	Paediatric surgery	8,554	16.17	1	85	10.93	529
20.13	Palliative care	21,207	50.37	5	270	43.95	421
20.14	Epilepsy	11,113	43.41	5	180	30.37	256
20.15	Neurology	97,955	38.22	1	215	25.70	2,563
20.16	Neurosurgery	59,613	25.77	1	180	17.93	2,313
20.17	Ophthalmology	285,227	19.06	1	220	11.70	14,965
20.18	Ear, nose and throat (ENT)	79,902	21.30	1	120	12.83	3,751
20.19	Respiratory	100,317	27.64	1	290	20.51	3,630
20.2	Respiratory - cystic fibrosis	19,260	37.69	10	161	18.27	511
20.21	Anti-coagulant screening and management	472	5.55	2	17	2.29	85
20.22	Cardiology	146,422	30.87	1	170	22.21	4,743
20.23	Cardiothoracic	1,358	24.69	5	70	12.33	55
20.24	Vascular surgery	35,935	19.03	1	130	12.68	1,888
20.25	Gastroenterology	99,041	22.79	1	440	20.35	4,346
20.26	Hepatobiliary	47,051	21.97	1	195	15.91	2,142
20.27	Craniofacial	28,372	26.20	2	230	26.46	1,083
20.28	Metabolic bone	5,571	43.52	4	90	19.05	128
20.29	Orthopaedics	226,216	18.36	1	120	12.26	12,321
20.3	Rheumatology	89,679	29.70	1	180	19.51	3,019
20.31	Spinal	8,522	46.06	3	340	48.09	185
20.32	Breast	72,546	28.60	1	246	21.05	2,537
20.33	Dermatology	89,311	20.98	1	220	15.55	4,257
20.34	Endocrinology	122,044	27.12	1	180	17.91	4,500
20.35	Nephrology	132,319	26.33	1	130	15.56	5,025
20.36	Urology	50,394	16.90	1	115	10.95	2,982

Clinic Code	Description	Total Medical Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
20.38	Gynaecology	155,628	26.36	1	220	19.60	5,903
20.39	Gynaecology oncology	28,241	28.38	2	190	24.60	995
20.4	Obstetrics	309,624	22.32	1	264	15.21	13,869
20.41	Immunology	65,830	39.70	1	181	27.45	1,658
20.42	Medical oncology (consultation)	222,075	27.20	1	360	19.29	8,164
20.43	Radiation oncology (consultation)	80,670	22.92	1	249	21.10	3,519
20.44	Infectious diseases	53,354	26.21	2	309	19.76	2,036
20.45	Psychiatry	42,376	39.98	1	200	25.28	1,060
20.46	Plastic and reconstructive surgery	71,081	15.76	1	145	11.89	4,509
20.47	Rehabilitation	60,429	48.85	5	210	31.45	1,237
20.48	Multidisciplinary burns clinic	2,098	16.52	3	180	19.26	127
20.49	Geriatric evaluation and management (GEM)	1,430	46.13	20	70	15.37	31
20.51	Sleep disorders	32,245	26.58	1	95	15.82	1,213
30.01	General imaging	7,097	35.49	5	140	21.63	200
30.05	Pathology	46,495	26.46	2	210	22.47	1,757
30.08	Clinical measurement	989	28.26	10	50	9.68	35
40.01	Aboriginal and Torres Strait Island people health clinic	2,779	41.48	5	130	25.00	67
40.02	Aged care assessment	300	30.00	10	70	21.60	10
40.03	Aids and Appliances	279	19.93	10	40	8.22	14
40.04	Clinical Pharmacy						
40.05	Hydrotherapy						
40.06	Occupational therapy	391	19.55	5	60	14.54	20
40.07	Pre-Admission and Pre-Anaesthesia	99,648	25.07	2	175	17.16	3,974
40.08	Primary health care	3,792	42.13	10	120	21.28	90
40.09	Physiotherapy	5,392	21.65	4	130	18.68	249
40.1	Sexual Health	9,899	21.24	1	75	13.10	466
40.11	Social Work	3,647	24.15	2	160	19.27	151
40.12	Rehabilitation	9,773	46.54	5	135	26.84	210
40.13	Wound management	7,566	18.73	2	130	14.55	404
40.14	Neuropsychology						
40.15	Optometry						
40.16	Orthoptics	1,161	16.59	2	35	6.10	70
40.17	Audiology	1,049	24.98	5	60	15.66	42
40.18	Speech pathology	2,305	23.76	1	170	23.87	97
40.19	Asthma	251	31.38	1	45	14.27	8
40.2	COPD						
40.21	Cardiac rehabilitation	3,925	44.60	2	240	33.49	88
40.22	Stomal therapy	77	19.25	5	30	12.74	4
40.23	Nutrition/dietetics	491	25.84	2	60	17.46	19
40.24	Orthotics	352	44.00	25	80	22.76	8
40.25	Podiatry	2,857	27.47	2	120	22.81	104
40.26	Diabetes	7,746	28.90	1	80	17.12	268
40.27	Family planning	3,606	26.13	2	85	15.41	138
40.28	Midwifery and maternity	41,416	30.72	1	330	29.33	1,348
40.29	Psychology	1,872	36.00	5	120	25.99	52
40.3	Alcohol and other drugs	8,182	26.14	2	130	18.69	313
40.31	Burns	7,544	12.64	1	165	12.40	597
40.32	Continence	1,569	32.02	5	130	28.14	49
40.34	Specialist mental health	132,947	33.94	1	160	21.59	3,917
40.35	Palliative care	25,113	57.86	2	295	37.96	434
40.36	Geriatric evaluation and management (GEM)	745	28.65	5	110	37.88	26
40.37	Psychogeriatric						
40.38	Infectious diseases	25	8.33	5	15	5.77	3
40.39	Neurology						
40.4	Respiratory	3,264	11.53	1	58	10.61	283

Clinic Code	Description	Total Medical Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
40.41	Gastroenterology						
40.42	Circulatory	1,808	10.16	2	125	16.17	178
40.44	Orthopaedics	40	13.33	10	15	2.89	3
40.46	Endocrinology	13,113	27.09	2	80	14.76	484
40.47	Nephrology	57	8.14	1	25	8.78	7
40.48	Haematology and immunology	4,566	11.14	1	60	12.66	410
40.49	Gynaecology	15,103	38.14	2	221	23.62	396
40.5	Urology	48	24.00	23	25	1.41	2
40.51	Breast	5,189	38.72	2	160	33.27	134
40.52	Oncology	1,992	13.83	1	120	15.59	144
40.53	General medicine	442	29.47	7	60	15.35	15
40.54	General surgery						
40.55	Paediatrics	4,888	22.63	2	105	17.00	216
40.56	Falls prevention						
40.58	Hospital avoidance programs	180	60.00	20	130	60.83	3
40.59	Post-acute care	778	21.61	7	52	9.34	36
50.01	Other non--admitted clinic not specified above						
Total Medical Time – Individual Encounters		5,224,745	27.72	1	5760	39.24	188,465

Distribution of time for those encounters recording Medical time – by tier 2 clinic
* As identified on page 12 of this report, the study did not receive sufficient clinic specific volume to rely on the above for those clinics

Appendix P   Non-admitted time data – Nursing Encounters

Clinic Code	Description	Total Nursing Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
10.01	Hyperbaric medicine	153,166	218.81	5	610	89.37	700
10.02	Interventional imaging	3,877	56.19	10	480	80.41	69
10.03	Minor surgical	23,234	57.09	1	436	90.84	407
10.04	Dental	383,853	47.23	1	460	33.53	8,128
10.05	Angioplasty/angiography	12,951	101.98	10	280	49.34	127
10.06	Endoscopy - gastrointestinal	391,633	278.74	5	12,240	726.27	1,405
10.07	Endoscopy - urological/gynaecological	16,743	21.86	2	145	17.88	766
10.08	Endoscopy - orthopaedic	339	18.83	8	31	6.60	18
10.09	Endoscopy - respiratory/ENT	5,503	18.53	10	55	7.34	297
10.1	Renal dialysis - hospital delivered	45,905	39.51	2	510	52.51	1,162
10.11	Medical oncology (treatment)	496,130	94.11	2	670	89.58	5,272
10.12	Radiation oncology (treatment)	87,572	21.56	1	505	31.41	4,062
10.13	Minor medical procedures	30,552	66.13	2	750	78.92	462
10.14	Pain management interventions	110	11.00	10	20	3.16	10
10.15	Renal dialysis - haemodialysis - home delivered	26,664	208.31	7	870	185.29	128
10.17	Total parenteral nutrition - home delivered	3,283	36.48	5	180	30.19	90
20.01	Transplants	40,230	25.08	1	434	33.89	1,604
20.02	Anaesthetics	28,491	18.14	2	90	10.83	1,571
20.03	Pain management	30,457	55.88	3	400	59.89	545
20.04	Developmental disabilities	552	36.80	3	70	20.15	15
20.05	General medicine	154,603	21.07	1	370	32.18	7,337
20.06	General practice and primary care	3,391	21.88	5	205	27.77	155
20.07	General surgery	68,123	12.11	1	267	13.77	5,624
20.08	Genetics	10,387	14.57	1	180	16.90	713
20.09	Geriatric medicine	29,599	29.84	2	150	24.52	992
20.1	Haematology	91,579	31.63	1	510	64.43	2,895
20.11	Paediatric medicine	50,714	13.35	1	132	13.96	3,799
20.12	Paediatric surgery	3,153	12.98	2	85	12.25	243
20.13	Palliative care	28,316	48.32	1	480	49.21	586
20.14	Epilepsy	4,620	28.00	5	150	20.55	165
20.15	Neurology	26,367	25.77	1	425	37.35	1,023
20.16	Neurosurgery	12,870	24.01	1	145	21.27	536
20.17	Ophthalmology	167,555	12.29	1	130	9.56	13,637
20.18	Ear, nose and throat (ENT)	18,608	9.01	1	70	7.63	2,066
20.19	Respiratory	48,912	17.51	1	634	42.82	2,794
20.2	Respiratory - cystic fibrosis	12,331	25.80	2	134	20.21	478
20.21	Anti-coagulant screening and management	275	3.93	2	10	1.35	70
20.22	Cardiology	75,813	21.14	1	570	29.88	3,587
20.23	Cardiothoracic	1,840	32.28	1	120	29.12	57
20.24	Vascular surgery	22,031	17.01	1	175	17.16	1,295
20.25	Gastroenterology	55,079	19.59	1	445	39.82	2,811

Clinic Code	Description	Total Nursing Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
20.26	Hepatobiliary	28,004	14.63	1	190	17.52	1,914
20.27	Craniofacial	4,616	14.99	2	70	12.95	308
20.28	Metabolic bone	2,132	17.61	2	120	21.89	121
20.29	Orthopaedics	95,193	10.37	1	170	11.01	9,184
20.3	Rheumatology	18,153	11.58	1	120	12.99	1,568
20.31	Spinal	2,575	17.64	2	340	42.48	146
20.32	Breast	37,427	23.96	1	180	20.14	1,562
20.33	Dermatology	25,562	12.47	1	120	14.43	2,050
20.34	Endocrinology	93,690	17.80	1	217	20.64	5,263
20.35	Nephrology	77,091	20.78	1	425	26.95	3,710
20.36	Urology	83,461	16.67	1	270	21.28	5,008
20.38	Gynaecology	59,524	21.76	1	340	24.58	2,735
20.39	Gynaecology oncology	22,549	26.72	1	180	23.17	844
20.4	Obstetrics	323,452	26.53	1	290	24.92	12,190
20.41	Immunology	56,463	35.33	1	455	46.89	1,598
20.42	Medical oncology (consultation)	339,385	40.28	1	925	58.69	8,425
20.43	Radiation oncology (consultation)	16,373	7.77	1	98	10.33	2,108
20.44	Infectious diseases	42,948	19.71	1	215	20.98	2,179
20.45	Psychiatry	10,935	26.29	3	210	33.67	416
20.46	Plastic and reconstructive surgery	45,191	13.90	1	230	14.83	3,252
20.47	Rehabilitation	7,240	43.61	5	321	32.52	166
20.48	Multidisciplinary burns clinic	9,749	40.12	2	150	27.11	243
20.49	Geriatric evaluation and management (GEM)	60	20.00	15	30	8.66	3
20.51	Sleep disorders	12,657	26.15	1	246	30.18	484
30.01	General imaging	10	10.00	10	10		1
30.05	Pathology						
30.08	Clinical measurement	31,491	23.87	1	300	26.46	1,319
40.01	Aboriginal and Torres Strait Island people health clinic	667	24.70	10	50	9.84	27
40.02	Aged care assessment	12,598	57.79	2	315	55.30	218
40.03	Aids and Appliances	222	37.00	5	70	28.39	6
40.04	Clinical Pharmacy	580	27.62	5	200	52.08	21
40.05	Hydrotherapy						
40.06	Occupational therapy	443	16.41	1	65	18.39	27
40.07	Pre-Admission and Pre-Anaesthesia	204,748	34.03	2	155	17.69	6,017
40.08	Primary health care	79,471	46.07	2	420	35.11	1,725
40.09	Physiotherapy	6,490	34.16	3	180	38.90	190
40.1	Sexual Health	13,948	17.44	2	125	15.77	800
40.11	Social Work	5,056	26.47	2	225	37.44	191
40.12	Rehabilitation	118,411	63.46	1	490	43.60	1,866
40.13	Wound management	43,970	47.03	2	310	43.19	935
40.14	Neuropsychology	1,728	23.35	5	50	9.81	74
40.15	Optometry						

Clinic Code	Description	Total Nursing Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
40.16	Orthoptics						
40.17	Audiology	494	15.94	5	57	12.02	31
40.18	Speech pathology	400	30.77	5	100	24.23	13
40.19	Asthma	6,272	73.79	1	150	28.79	85
40.2	COPD	680	21.25	2	40	10.11	32
40.21	Cardiac rehabilitation	61,580	67.08	2	400	54.25	918
40.22	Stomal therapy	8,330	34.71	4	130	17.98	240
40.23	Nutrition/dietetics	4,341	20.67	1	180	23.84	210
40.24	Orthotics	180	180.00	180	180		1
40.25	Podiatry	4,410	27.39	5	120	17.03	161
40.26	Diabetes	21,956	22.80	2	420	24.80	963
40.27	Family planning	3,891	24.47	1	120	18.34	159
40.28	Midwifery and maternity	654,976	47.81	1	360	37.64	13,700
40.29	Psychology	11,395	37.86	5	150	28.40	301
40.3	Alcohol and other drugs	66,546	7.77	1	147	10.96	8,560
40.31	Burns	36,681	31.11	1	275	24.90	1,179
40.32	Continence	23,867	30.92	1	215	28.95	772
40.34	Specialist mental health	416,855	43.19	1	365	39.33	9,651
40.35	Palliative care	107,575	67.02	2	1,190	117.68	1,605
40.36	Geriatric evaluation and management (GEM)	5,125	41.00	5	225	38.18	125
40.37	Psychogeriatric						
40.38	Infectious diseases	1,205	17.99	5	50	9.83	67
40.39	Neurology	1,710	34.90	10	90	18.04	49
40.4	Respiratory	17,035	11.26	1	130	15.42	1,513
40.41	Gastroenterology						
40.42	Circulatory	16,013	67.28	5	420	79.00	238
40.44	Orthopaedics	344	43.00	12	130	38.11	8
40.46	Endocrinology	41,150	42.34	1	300	34.60	972
40.47	Nephrology	2,137	50.88	10	120	29.79	42
40.48	Haematology and immunology	17,965	22.54	1	145	19.02	797
40.49	Gynaecology	10,877	21.08	2	160	16.94	516
40.5	Urology	5,055	91.91	20	475	94.56	55
40.51	Breast	15,454	32.47	4	245	26.48	476
40.52	Oncology	47,394	6.59	1	257	11.72	7,191
40.53	General medicine	46,340	43.15	5	270	21.03	1,074
40.54	General surgery	10	10.00	10	10		1
40.55	Paediatrics	11,076	26.82	3	156	25.47	413
40.56	Falls prevention						
40.58	Hospital avoidance programs	64,716	75.34	5	490	55.46	859
40.59	Post-acute care	1,174	25.52	2	100	17.62	46
50.01	Other non--admitted clinic not specified above						
Total Nursing Time – Individual Encounters		6,336,883	30.23	1	12,240	75.30	209,618

Distribution of time for those encounters recording nursing time – by tier 2 clinic
* As identified on page 12 of this report, the study did not receive sufficient clinic specific volume to rely on the above for those clinics

Appendix Q Non-admitted time data – Allied Health Encounters

Clinic Code	Description	Total Allied Health Professional Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
10.01	Hyperbaric medicine	89,602	149.59	15	315	23.79	599
10.02	Interventional imaging	3,139	76.56	10	480	96.61	41
10.03	Minor surgical	3,894	42.79	5	190	32.80	91
10.04	Dental	246,477	61.02	1	585	86.01	4,039
10.05	Angioplasty/angiography	6,596	103.06	40	200	37.98	64
10.06	Endoscopy - gastrointestinal	15,646	32.94	5	80	10.65	475
10.07	Endoscopy - urological/gynaecological	2,575	67.76	10	540	99.54	38
10.08	Endoscopy - orthopaedic						
10.09	Endoscopy - respiratory/ENT	35	17.50	15	20	3.54	2
10.1	Renal dialysis - hospital delivered	2,518	32.28	5	90	21.25	78
10.11	Medical oncology (treatment)	7,241	27.64	3	140	22.21	262
10.12	Radiation oncology (treatment)	1,084,685	52.22	1	865	56.95	20,771
10.13	Minor medical procedures	20	10.00	10	10	0.00	2
10.14	Pain management interventions						
10.15	Renal dialysis - haemodialysis - home delivered						
10.17	Total parenteral nutrition - home delivered						
20.01	Transplants	1,371	11.62	1	70	11.94	118
20.02	Anaesthetics	487	16.23	7	31	7.96	30
20.03	Pain management	64,644	102.77	3	915	132.21	629
20.04	Developmental disabilities	26,695	381.36	10	1780	457.82	70
20.05	General medicine	36,803	37.79	2	585	37.74	974
20.06	General practice and primary care						
20.07	General surgery	5,691	45.90	2	138	30.43	124
20.08	Genetics	117,302	24.89	1	330	30.30	4,713
20.09	Geriatric medicine	40,133	71.54	5	480	61.75	561
20.1	Haematology	3,442	16.96	1	107	20.91	203
20.11	Paediatric medicine	44,473	57.91	4	330	43.33	768
20.12	Paediatric surgery	1,243	26.45	3	60	18.15	47
20.13	Palliative care	28,297	43.27	5	240	47.11	654
20.14	Epilepsy	8,510	50.96	5	330	50.34	167
20.15	Neurology	14,526	67.25	2	493	80.92	216
20.16	Neurosurgery	5,920	41.99	2	155	26.96	141
20.17	Ophthalmology	56,551	13.49	1	150	9.68	4,191
20.18	Ear, nose and throat (ENT)	19,500	33.51	2	180	26.89	582
20.19	Respiratory	15,643	33.79	4	120	16.24	463
20.2	Respiratory - cystic fibrosis	13,936	41.98	4	310	26.20	332
20.21	Anti-coagulant screening and management	284	3.84	2	10	1.32	74
20.22	Cardiology	73,806	36.34	5	1130	38.95	2,031
20.23	Cardiothoracic	30	30.00	30	30		1
20.24	Vascular surgery	3,205	32.70	5	100	17.90	98
20.25	Gastroenterology	7,687	35.92	3	150	21.62	214
20.26	Hepatobiliary	5,006	27.66	1	120	28.19	181
20.27	Craniofacial	4,562	31.68	2	60	12.45	144
20.28	Metabolic bone	412	31.69	10	60	13.31	13
20.29	Orthopaedics	101,143	25.88	2	305.46	24.78	3,908
20.3	Rheumatology	1,179	28.76	2	70	18.38	41
20.31	Spinal	4,093	97.45	3	780	147.60	42
20.32	Breast	4,828	33.30	5	150	27.23	145
20.33	Dermatology	2,752	45.87	5	150	30.52	60
20.34	Endocrinology	34,233	51.48	2	290	41.47	665
20.35	Nephrology	14,525	25.89	1	183	26.12	561
20.36	Urology	8,074	43.41	5	155	31.65	186
20.38	Gynaecology	4,367	42.81	5	145	24.00	102

Clinic Code	Description	Total Allied Health Professional Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
20.39	Gynaecology oncology	5,078	57.70	5	180	34.20	88
20.4	Obstetrics	41,988	28.99	2	123	17.77	1,448
20.41	Immunology	2,960	51.93	15	240	42.36	57
20.42	Medical oncology (consultation)	54,111	27.37	1	303	44.56	1,977
20.43	Radiation oncology (consultation)	1,169	20.16	2	120	19.79	58
20.44	Infectious diseases	1,811	46.44	5	180	38.57	39
20.45	Psychiatry	32,316	53.59	3	230	35.66	603
20.46	Plastic and reconstructive surgery	46,937	33.77	1	240	27.65	1,390
20.47	Rehabilitation	57,302	72.35	5	480	76.38	792
20.48	Multidisciplinary burns clinic	3,305	36.32	10	150	28.88	91
20.49	Geriatric evaluation and management (GEM)						
20.51	Sleep disorders	11,462	58.48	5	705	114.33	196
30.01	General imaging	11,429	57.72	5	140	27.78	198
30.05	Pathology	1,890	8.96	5.29	30	4.37	211
30.08	Clinical measurement	58,962	49.01	1	530	44.91	1,203
40.01	Aboriginal and Torres Strait Island people health clinic	1,596	38.93	12	290	50.04	41
40.02	Aged care assessment	44,046	75.29	4	702	71.83	585
40.03	Aids and Appliances	62,260	111.58	5	660	102.10	558
40.04	Clinical Pharmacy	104,963	23.99	1	150	23.71	4,375
40.05	Hydrotherapy	4,755	9.65	5.45	49	8.77	493
40.06	Occupational therapy	318,976	51.32	2	630	41.86	6,215
40.07	Pre-Admission and Pre-Anaesthesia	21,622	14.67	1	115	11.94	1,474
40.08	Primary health care	47,506	68.45	10	290	47.81	694
40.09	Physiotherapy	841,960	37.54	1	740	32.05	22,427
40.1	Sexual Health	11,256	28.50	2	180	27.75	395
40.11	Social Work	317,100	51.92	5	775	43.64	6,107
40.12	Rehabilitation	646,961	72.76	2	810	64.42	8,892
40.13	Wound management	10,493	70.90	5	325	55.88	148
40.14	Neuropsychology	5,729	93.92	5	300	91.23	61
40.15	Optometry	105,272	28.75	6	135	13.81	3,662
40.16	Orthoptics	41,954	33.30	1	150	19.31	1,260
40.17	Audiology	113,403	60.00	5	525	52.10	1,890
40.18	Speech pathology	239,626	68.88	3	1120	74.42	3,479
40.19	Asthma						
40.2	COPD						
40.21	Cardiac rehabilitation	110,312	69.95	5.33	600	81.17	1,577
40.22	Stomal therapy	770	154.00	40	420	158.68	5
40.23	Nutrition/dietetics	298,588	45.05	2	420	31.23	6,628
40.24	Orthotics	87,382	54.34	3	430	48.10	1,608
40.25	Podiatry	229,105	56.40	1	400	39.59	4,062
40.26	Diabetes	4,178	56.46	5	1220	144.67	74
40.27	Family planning	40	20.00	20	20	0.00	2
40.28	Midwifery and maternity	124,487	51.31	1	580	40.79	2,426
40.29	Psychology	88,926	56.57	5	270	37.66	1,572
40.3	Alcohol and other drugs	58,108	38.41	2	200	34.95	1,513
40.31	Burns	246,430	41.74	1	280	27.76	5,904
40.32	Continence	90	45.00	30	60	21.21	2
40.34	Specialist mental health	463,370	55.18	1	350	43.04	8,398
40.35	Palliative care	103,384	48.06	5	584	45.12	2,151
40.36	Geriatric evaluation and management (GEM)	16,255	64.76	10	390	58.23	251
40.37	Psychogeriatric	18,179	72.14	6	314	65.00	252
40.38	Infectious diseases						
40.39	Neurology	90,436	89.10	10	1050	149.33	1,015
40.4	Respiratory	19,596	43.35	4	217	34.79	452
40.41	Gastroenterology	4,805	47.57	10	195	38.85	101
40.42	Circulatory	14,940	61.74	10	500	49.20	242
40.44	Orthopaedics	253,800	53.97	5.79	600	44.80	4,703

Clinic Code	Description	Total Allied Health Professional Time (Direct and Indirect) Minutes	Average Minutes	Min	Max	Std Deviation	Total Individual Encounters
40.46	Endocrinology	31,247	43.64	2	350	25.28	716
40.47	Nephrology	70,580	56.33	2	420	35.41	1,253
40.48	Haematology and immunology	7,299	31.73	2	190	34.01	230
40.49	Gynaecology	5,435	43.48	3	120	23.04	125
40.5	Urology	5,780	44.46	10	120	17.26	130
40.51	Breast	4,576	50.84	15	190	25.78	90
40.52	Oncology	261,884	45.90	1	450	30.60	5,706
40.53	General medicine	121,041	52.42	5	360	38.40	2,309
40.54	General surgery	83,800	37.66	5.63	255	28.10	2,225
40.55	Paediatrics	14,409	42.38	5	435	54.35	340
40.56	Falls prevention	13,310	24.29	5.36	112.5	18.64	548
40.58	Hospital avoidance programs	72,050	63.87	6	270	48.52	1,128
40.59	Post-acute care	425	23.61	8	45	8.12	18
50.01	Other non--admitted clinic not specified above	615,583	55.67	5.14	522	43.90	11,057
Total Allied Health Professional Time – Individual Encounters		9,048,592	47.67	1	1780	50.15	189,831

Distribution of time for those encounters recording allied Health time – by tier 2 clinic
* As identified on page 12 of this report, the study did not receive sufficient clinic specific volume to rely on the above for those clinics

Appendix R   Subacute time based data – Medical

AN-SNAP Class	Total Medical Time (Direct and Indirect) in Minutes	Per Bed day average Medical Time (minutes)	Minimum	Maximum	Std Deviation	Total Bed-days
103	95	31.67	30	35	2.89	3
104	910	33.70	0	140	28.34	27
110	190	47.50	15	75	29.58	4
203	2,240	89.60	0	410	103.43	25
204	745	43.82	0	155	45.91	17
205	420	42.00	0	105	39.87	10
208	805	19.63	0	75	22.15	41
214	970	26.94	0	150	41.77	36
221	0	0.00	0	0	0.00	1
227	80	16.00	0	80	35.78	5
228	1,020	17.29	0	100	20.29	59
229	1,685	42.13	0	190	50.10	40
231	1,320	21.29	0	160	29.17	62
232	2,820	60.00	0	520	108.62	47
251	200	9.52	0	75	18.36	21
252	0	0.00	0	0	0.00	11
253	920	14.15	0	130	31.27	65
299	7,670	48.54	0	350	59.49	158
401	1,730	96.11	0	240	72.55	18
404	2,060	68.67	0	205	54.52	30
499	1,225	36.03	0	235	50.81	34
599	750	75.00	0	195	65.79	10
998	10,610	17.39	0	195	28.47	610
999	2,680	28.21	0	130	39.17	95
2102	8,410	35.34	0	215	41.82	238
2103	9,295	25.47	0	255	31.03	365
2104	1,660	34.58	0	255	52.48	48
2105	3,865	39.44	0	180	44.23	98
2106	285	25.91	0	75	27.82	11
2107	520	23.64	0	105	29.97	22
2109	3,035	36.13	0	185	40.06	84
2110	30	15.00	0	30	21.21	2
2111	815	20.90	0	195	35.22	39
2204	485	15.65	0	85	24.25	31
2206	1,300	20.31	0	145	33.36	64
2209	1,830	26.91	0	180	37.84	68
2222	475	9.13	0	50	15.10	52
2228	60	30.00	0	60	42.43	2
2229	360	40.00	0	100	34.28	9
2244	140	15.56	0	75	25.91	9
2245	115	9.58	0	70	21.58	12
3101	0	0.00	0	0	0.00	3
3102	590	10.54	0	75	18.16	56
3103	9,465	25.58	0	305	30.48	370
3104	1,130	29.74	0	130	30.33	38
3105	11,110	34.61	0	225	36.55	321
3106	3,025	39.80	0	160	37.63	76
3107	6,980	36.54	0	220	35.93	191
3108	1,690	33.80	0	100	28.55	50
3109	15,300	40.91	0	325	35.84	374
3110	210	42.00	0	130	50.57	5
3111	4,045	37.11	0	270	38.26	109

AN-SNAP Class	Total Medical Time (Direct and Indirect) in Minutes	Per Bed day average Medical Time (minutes)	Minimum	Maximum	Std Deviation	Total Bed-days
3201	160	160.00	160	160	0.00	1
3202	10,320	22.34	0	300	34.13	462
3203	4,255	16.75	0	215	27.02	254
3204	5,385	20.48	0	230	31.90	263
3205	3,230	30.19	0	115	28.74	107
3206	14,110	33.12	0	205	38.77	426
3207	320	21.33	0	105	29.85	15
3208	13,025	26.37	0	175	28.47	494
3209	21,510	25.22	0	270	31.77	853
3210	620	20.00	0	120	32.91	31
3211	7,075	28.53	0	200	43.67	248
3212	2,600	17.57	0	200	33.90	148
3213	9,235	33.95	0	420	51.70	272
3214	10,740	30.00	0	300	38.81	358
3215	4,925	25.39	0	300	43.04	194
3216	4,430	24.61	0	120	26.24	180
3217	2,885	21.21	0	155	27.92	136
3218	7,890	22.16	0	200	27.26	356
3219	260	11.82	0	55	16.94	22
3220	210	26.25	0	70	30.33	8
3221	2,660	16.52	0	140	23.04	161
3222	12,520	19.65	0	315	29.87	637
3223	2,905	27.93	0	165	35.43	104
3224	3,160	36.74	0	170	32.27	86
3225	14,300	30.62	0	285	35.12	467
3226	1,570	25.74	0	170	34.14	61
3227	15,910	32.08	0	185	36.66	496
3228	17,010	32.97	0	170	36.54	516
3229	20,955	27.00	0	200	35.50	776
3230	3,060	22.67	0	115	28.44	135
3231	1,470	28.82	0	175	38.71	51
3232	10,465	31.81	0	230	36.49	329
3233	5,050	51.01	0	185	48.32	99
3234	855	29.48	0	115	34.08	29
3235	2,145	26.48	0	135	33.86	81
3236	3,875	33.12	0	160	34.94	117
3237	7,480	31.04	0	155	33.17	241
3238	450	14.06	0	120	25.67	32
3239	4,615	27.80	0	160	32.75	166
3240	3,255	33.56	0	200	35.48	97
3241	2,480	27.56	0	210	32.65	90
3242	16,335	31.72	0	215	32.72	515
3243	24,175	28.81	0	210	30.69	839
3244	22,025	25.37	0	265	28.16	868
3245	3,250	18.68	0	95	20.86	174
3251	180	5.29	0	40	9.21	34
3252	590	7.47	0	45	11.40	79
3253	845	3.81	0	65	10.17	222
3302	7,640	41.75	0	190	45.26	183
3304	8,065	37.69	0	140	38.98	214
3305	265	26.50	0	60	24.95	10
3306	4,750	41.30	0	205	44.09	115
3307	6,290	35.94	0	130	38.36	175
3401	1,365	75.83	0	360	115.96	18

AN-SNAP Class	Total Medical Time (Direct and Indirect) in Minutes	Per Bed day average Medical Time (minutes)	Minimum	Maximum	Std Deviation	Total Bed-days
3402	18,315	22.09	0	230	29.21	829
3403	4,855	22.69	0	160	27.39	214
3404	1,485	13.38	0	95	18.82	111
3405	48,365	24.55	0	255	30.46	1,970
3406	23,955	22.04	0	190	28.44	1,087
3407	400	7.27	0	80	16.58	55
3499	455	35.00	0	80	24.83	13
3503	0	0.00	0	0	0.00	3
3504	2,675	25.00	0	215	35.11	107
3505	1,245	29.64	0	150	32.30	42
3506	440	18.33	0	40	14.72	24
3507	830	27.67	0	120	31.91	30
3508	3,980	35.54	0	185	39.27	112
3509	755	22.88	0	120	22.98	33
3999	170	85.00	80	90	7.07	2
Records with an AN-SNAP Class identified	590,445	27.02	0	520	34.87	21,853
Records with no AN-SNAP Class identified	697,750	25.48	0	575	34.38	27,388
Totals recorded	1,288,195	26.16	0	575	34.61	49,241

Distribution of total recorded time – by AN-SNAP class

Appendix S Subacute time based data – Nursing

AN-SNAP Class	Total Nursing Time (Direct and Indirect) in Minutes	Per Bed day average Nursing Time (minutes)	Minimum	Maximum	Std Deviation	Total Bed-days
103	910	303.33	155	455	150.03	3
104	4,915	182.04	80	550	93.07	27
110	955	238.75	125	330	84.79	4
203	10,750	430.00	240	1080	187.27	25
204	2,780	163.53	45	255	60.87	17
205	2,565	256.50	130	315	58.64	10
208	9,710	236.83	100	385	66.40	41
214	8,740	242.78	100	730	120.32	36
221	15	15.00	15	15	-	1
227	890	178.00	120	230	43.24	5
228	13,900	235.59	30	545	92.40	59
229	7,615	190.38	55	475	80.54	40
231	13,335	215.08	15	460	90.47	62
232	13,545	288.19	45	570	109.29	47
251	2,160	102.86	0	280	89.83	21
252	270	24.55	10	50	13.68	11
253	6,540	100.62	0	325	100.86	65
299	44,010	278.54	80	580	102.47	158
401	5,970	331.67	160	530	92.77	18
404	9,875	329.17	150	615	105.86	30
499	7,275	213.97	80	445	95.42	34
599	3,845	384.50	0	875	217.77	10
998	110,930	181.85	0	560	89.27	610
999	19,500	205.26	0	485	102.78	95
2102	83,155	349.39	0	1055	214.46	238
2103	131,155	359.33	0	1280	220.30	365
2104	18,460	384.58	0	1325	220.45	48
2105	29,195	297.91	20	1045	221.75	98
2106	2,345	213.18	30	545	170.66	11
2107	7,225	328.41	80	640	147.82	22
2109	36,480	434.29	45	1630	284.81	84
2110	585	292.50	190	395	144.96	2
2111	12,830	328.97	10	1035	233.92	39
2204	5,070	163.55	65	435	69.81	31
2206	11,025	172.27	40	455	73.71	64
2209	26,705	392.72	175	715	112.45	68
2222	19,020	365.77	0	805	126.90	52
2228	765	382.50	260	505	173.24	2
2229	3,915	435.00	210	520	89.97	9
2244	1,770	196.67	110	295	62.35	9
2245	2,865	238.75	135	405	82.02	12
3101	720	240.00	105	370	132.57	3
3102	10,225	182.59	25	320	59.27	56
3103	110,570	298.84	0	1375	191.12	370
3104	10,010	263.42	120	470	74.34	38
3105	83,715	260.79	0	1085	149.66	321
3106	23,405	307.96	45	630	128.36	76
3107	90,265	472.59	15	1170	221.73	191
3108	28,635	572.70	100	1615	302.89	50
3109	207,795	555.60	90	1430	235.01	374
3110	2,225	445.00	155	840	253.06	5
3111	38,830	356.24	30	955	184.24	109

AN-SNAP Class	Total Nursing Time (Direct and Indirect) in Minutes	Per Bed day average Nursing Time (minutes)	Minimum	Maximum	Std Deviation	Total Bed-days
3201	235	235.00	235	235	-	1
3202	183,021	396.15	0	940	196.57	462
3203	42,775	168.41	0	865	129.56	254
3204	38,130	144.98	0	505	127.71	263
3205	27,202	254.22	5	855	140.46	107
3206	96,160	225.73	0	605	123.03	426
3207	2,410	160.67	70	375	86.39	15
3208	142,151	287.76	5	1050	144.18	494
3209	217,925	255.48	0	900	129.51	853
3210	4,523	145.90	0	695	205.56	31
3211	38,447	155.03	0	575	100.12	248
3212	21,666	146.39	0	363	71.98	148
3213	79,662	292.88	0	1540	290.39	272
3214	81,163	226.71	0	800	131.35	358
3215	50,546	260.55	0	880	206.06	194
3216	40,735	226.31	0	770	134.31	180
3217	27,350	201.10	0	655	145.65	136
3218	87,345	245.35	0	755	133.63	356
3219	4,970	225.91	40	460	95.09	22
3220	1,390	173.75	95	255	62.89	8
3221	28,628	177.81	0	470	94.07	161
3222	172,510	270.82	0	1123	155.69	637
3223	20,830	200.29	0	705	147.49	104
3224	13,120	152.56	5	295	59.91	86
3225	120,858	258.80	15	775	136.38	467
3226	17,305	283.69	25	495	108.05	61
3227	114,238	230.32	0	650	141.73	496
3228	142,576	276.31	0	645	128.49	516
3229	220,905	284.67	0	750	136.67	776
3230	30,605	226.70	0	630	126.96	135
3231	16,550	324.51	65	545	135.65	51
3232	93,391	283.86	0	950	140.40	329
3233	29,976	302.79	0	565	108.47	99
3234	8,790	303.10	20	450	97.48	29
3235	21,590	266.54	0	560	146.57	81
3236	31,443	268.74	80	565	105.24	117
3237	58,206	241.52	0	886	145.58	241
3238	5,330	166.56	45	315	67.96	32
3239	38,466	231.72	0	700	140.43	166
3240	20,482	211.15	0	526	162.86	97
3241	30,237	335.97	34	728	127.45	90
3242	100,551	195.24	0	706	133.35	515
3243	175,386	209.04	0	770	134.87	839
3244	180,501	207.95	0	615	104.45	868
3245	36,610	210.40	35	615	103.17	174
3251	40	1.18	0	5	2.15	34
3252	105	1.33	0	10	2.49	79
3253	105	0.47	0	10	1.54	222
3302	67,865	370.85	125	1175	115.69	183
3304	74,265	347.03	0	685	98.01	214
3305	3,425	342.50	70	495	139.23	10
3306	37,400	325.22	110	810	106.39	115
3307	61,730	352.74	0	660	108.43	175
3401	7,045	391.39	60	940	214.34	18

AN-SNAP Class	Total Nursing Time (Direct and Indirect) in Minutes	Per Bed day average Nursing Time (minutes)	Minimum	Maximum	Std Deviation	Total Bed-days
3402	253,420	305.69	25	1465	131.78	829
3403	58,745	274.51	5	760	124.87	214
3404	23,220	209.19	75	550	76.83	111
3405	566735	287.68	0	1310	118.38	1,970
3406	292,790	269.36	20	1040	114.77	1,087
3407	16,070	292.18	55	645	144.78	55
3499	3,905	300.38	140	475	107.32	13
3503	195	65.00	25	130	56.79	3
3504	39,037	364.83	75	635	150.24	107
3505	9,235	219.88	56	512	118.29	42
3506	4,960	206.67	0	485	127.13	24
3507	26,070	869.00	115	1396	370.56	30
3508	22,925	204.69	0	495	98.44	112
3509	12,517	379.30	317	441	22.37	33
3999	255	127.50	120	135	10.61	2
Records with an AN-SNAP Class identified	5,798,909	356.36	0	1630	163.92	21,853
Records with no AN-SNAP Class identified	7,339,902	268.00	0	1710	164.90	27,388
Totals recorded	13,138,811	266.83	0	1710	164.47	49,241

Distribution of total recorded time – by AN-SNAP class

Appendix T   Subacute time based data –Allied Health

AN-SNAP class	Total Allied Health Professional Time (Direct and Indirect) in Mins	Per Bed day average AHP Time (minutes)	Minimum	Maximum	Std Deviation	Total Bed-days
103	0	0.00	0	0	0.00	3
104	330	12.22	0	70	21.32	27
110	25	6.25	0	25	12.50	4
203	355	14.20	0	55	18.86	25
204	2,955	173.82	0	550	183.81	17
205	195	19.50	0	100	36.85	10
208	10,380	253.17	0	645	184.21	41
214	1,110	30.83	0	180	46.64	36
221	130	130.00	130	130	-	1
227	1,105	221.00	0	425	204.83	5
228	1,910	32.37	0	145	34.40	59
229	545	13.63	0	70	20.79	40
231	6,175	99.60	0	470	139.79	62
232	2,945	62.66	0	485	113.69	47
251	3,855	183.57	0	405	103.70	21
252	2,025	184.09	50	390	90.36	11
253	11,955	183.92	0	610	142.76	65
299	3,665	23.20	0	130	31.37	158
401	515	28.61	0	120	39.99	18
404	520	17.33	0	95	23.18	30
499	670	19.71	0	85	25.34	34
599	135	13.50	0	40	15.47	10
998	44,490	72.93	0	585	119.21	610
999	12,860	135.37	0	635	143.23	95
2102	3,985	16.74	0	190	28.06	238
2103	4,680	12.82	0	175	20.74	365
2104	560	11.67	0	155	23.55	48
2105	1,340	13.67	0	105	21.49	98
2106	165	15.00	0	45	19.36	11
2107	205	9.32	0	45	11.78	22
2109	1,075	12.80	0	120	20.24	84
2110	0	0.00	0	0	0.00	2
2111	225	5.77	0	50	11.78	39
2204	4,305	138.87	0	300	70.98	31
2206	11,075	173.05	0	380	93.63	64
2209	9,115	134.04	0	470	128.24	68
2222	10,435	200.67	0	850	177.53	52
2228	0	0.00	0	0	0.00	2
2229	995	110.56	0	290	110.41	9
2244	290	32.22	0	160	52.33	9
2245	1,705	142.08	80	235	49.10	12
3101	0	0.00	0	0	0.00	3
3102	970	17.32	0	120	30.73	56
3103	8,675	23.45	0	360	56.46	370
3104	690	18.16	0	130	32.89	38
3105	2,200	6.85	0	210	25.65	321
3106	285	3.75	0	75	14.03	76
3107	8,395	43.95	0	315	68.76	191
3108	1,350	27.00	0	165	40.71	50
3109	16,280	43.53	0	395	67.80	374
3110	155	31.00	0	115	50.05	5

AN-SNAP class	Total Allied Health Professional Time (Direct and Indirect) in Mins	Per Bed day average AHP Time (minutes)	Minimum	Maximum	Std Deviation	Total Bed-days
3111	1,825	16.74	0	220	44.33	109
3201	50	50.00	50	50	-	1
3202	48,320	104.59	0	760	138.97	462
3203	15,540	61.18	0	540	88.07	254
3204	14,335	54.51	0	355	72.04	263
3205	2,860	26.73	0	240	53.41	107
3206	41,115	96.51	0	495	97.82	426
3207	3,125	208.33	15	420	122.56	15
3208	42,550	86.13	0	505	101.70	494
3209	68,445	80.24	0	455	104.07	853
3210	1,715	55.32	0	210	57.84	31
3211	35,760	144.19	0	835	196.11	248
3212	23,510	158.85	0	855	188.91	148
3213	28,640	105.29	0	950	195.49	272
3214	33,440	93.41	0	1045	171.56	358
3215	28,570	147.27	0	755	185.56	194
3216	14,365	79.81	0	365	100.14	180
3217	10,790	79.34	0	420	104.08	136
3218	19,290	54.19	0	420	88.49	356
3219	20	0.91	0	15	3.32	22
3220	1,930	241.25	0	675	244.48	8
3221	19,190	119.19	0	680	152.37	161
3222	76,790	120.55	0	1395	166.06	637
3223	21,715	208.80	0	1405	208.09	104
3224	7,225	84.01	0	285	79.18	86
3225	30,445	65.19	0	425	86.84	467
3226	1,655	27.13	0	370	65.77	61
3227	28,625	57.71	0	395	77.26	496
3228	25,910	50.21	0	635	81.33	516
3229	31,215	40.23	0	420	68.69	776
3230	6,085	45.07	0	430	79.34	135
3231	3,880	76.08	0	280	73.08	51
3232	17,855	54.27	0	445	90.72	329
3233	3,720	37.58	0	450	74.82	99
3234	60	2.07	0	50	9.40	29
3235	4,225	52.16	0	345	65.77	81
3236	4,410	37.69	0	285	63.89	117
3237	12,930	53.65	0	350	76.70	241
3238	1,210	37.81	0	250	67.56	32
3239	13,135	79.13	0	615	131.98	166
3240	13,610	140.31	0	1710	295.26	97
3241	5,060	56.22	0	515	120.78	90
3242	26,990	52.41	0	410	80.63	515
3243	33,880	40.38	0	355	60.97	839
3244	38,035	43.82	0	455	68.35	868
3245	7,815	44.91	0	315	65.31	174
3251	6,565	193.09	45	380	68.87	34
3252	13,970	176.84	0	385	67.01	79
3253	31,830	143.38	0	370	65.40	222
3302	260	1.42	0	35	4.47	183
3304	285	1.33	0	35	4.11	214
3305	0	0.00	0	0	0.00	10
3306	165	1.43	0	25	3.49	115

AN-SNAP class	Total Allied Health Professional Time (Direct and Indirect) in Mins	Per Bed day average AHP Time (minutes)	Minimum	Maximum	Std Deviation	Total Bed-days
3307	280	1.60	0	35	5.03	175
3401	110	6.11	0	35	9.48	18
3402	4,860	5.86	0	80	9.39	829
3403	1,200	5.61	0	95	10.20	214
3404	850	7.66	0	100	15.37	111
3405	13,560	6.88	0	135	11.09	1,970
3406	7,605	7.00	0	85	11.09	1,087
3407	505	9.18	0	50	11.78	55
3499	135	10.38	0	30	12.16	13
3503	0	0.00	0	0	0.00	3
3504	1,395	13.04	0	215	34.48	107
3505	360	8.57	0	125	25.69	42
3506	110	4.58	0	30	10.10	24
3507	0	0.00	0	0	0.00	30
3508	750	6.70	0	105	16.12	112
3509	0	0.00	0	0	0.00	33
3999	20	10.00	0	20	14.14	2
Records with an AN-SNAP Class identified	1,154,685	52.84	0	1710	100.97	21,853
Records with no AN-SNAP Class identified	1,240,160	45.28	0	1450	82.67	27,388
Totals recorded	2,394,845	48.64	0	1710	91.32	49,241

Appendix U   Daily Checklist/Batch Header

Hospital name	
Hospital Code: ☐ ☐ ☐ ☐ Encounter Date DD/MM: ☐DD☐ / ☐MM☐ Clinic/ Community Program / Out reach Program Name: ☐ Clinic Code: ☐ ☐ ☐ ☐ ☐	
Above details to be obtained from the batch header	
Number of appointments	
Number of forms collected	
Key form fields completed on all forms (yes or no). If no, arrange for relevant clinician to complete	
Project Officer name	
Project Office Signature	

Appendix V   PCOC Inpatient Episode Form

Insert service name and logo here	**PCOC** palliative care outcomes collaboration	(Complete or affix Addressograph Label here) UPI_____ DOB_____ Surname_____ Given Names_____ Gender Male ☐ Female ☐ Other ☐ State _____ Postcode _____

Inpatient Episode Information

Ward/Unit/Team name: _____-

_____

Section 1 (Complete at start of episode)

Country of Birth	☐ **Australia**	☐**Other, specify** _____
Preferred Language	☐ **English**	☐ **Other, specify** _____

Indigenous Status

☐ Aboriginal but not Torres Strait Islander origin   ☐ Torres Strait Islander but not Aboriginal origin

☐ Both Aboriginal and Torres Strait Islander origin ☐ Neither Aboriginal nor Torres Strait Islander origin

☐ Not stated / inadequately described

Primary Diagnosis (principal life-limiting illness)

Malignant

☐ Bone & soft tissue ☐ Gynaecological ☐ Pancreas ☐ Other GIT

☐ Breast ☐ Haematological ☐ Prostate ☐ Other Urological

☐ CNS Malignancy ☐ Head and Neck ☐ Skin ☐ Other

☐ Colorectal ☐ Lung ☐ Unknown Primary

Non-malignant

☐ Cardiovascular disease ☐ Alzheimer's disease ☐ Diabetes & its complications

☐ HIV/AIDS ☐ Other dementia ☐ Sepsis

☐ End stage kidney disease ☐ Other neurological disease ☐ Multiple organ failure

☐ Stroke ☐ Respiratory failure ☐ Other non malignancy

☐ Motor Neurone Disease ☐ End stage liver disease

Referral Source

☐ Public hospital palliative care unit/team   ☐ Private hospital palliative care unit/team

☐ Public hospital oncology unit/team   ☐ Private hospital oncology unit/team

☐ Public hospital medical unit/team   ☐ Private hospital medical unit/team

☐ Public hospital surgical unit/team   ☐ Private hospital surgical unit/team

☐ Public hospital emergency department   ☐ Private hospital emergency department

☐ Community palliative care service   ☐ Outpatient clinic

☐ Community generalist service   ☐ General practitioner rooms

☐ Specialist practitioner rooms   ☐ Residential aged care facility

☐ Self, carer(s), family or friends   ☐ Other

Referral Date: __ __ / __ __ / __ __ __ __   (referral date for this episode)

Date Ready for Care: __ __ / __ __ / __ __ __ __   (date the patient is ready/available for admission)

Episode Start Date / First Contact Date: __ __ / __ __ / __ __ __ __   (date of admission)

Episode Start Mode

☐ Admitted from usual accommodation (complete accommodation at episode start)

☐ Admitted from other than usual accommodation (complete accommodation at episode start)

☐ Admitted from another hospital

☐ Admitted from acute care in another ward

☐ Change from acute care while remaining on same ward

☐ Change from another subacute care type e.g. rehab

☐ Other

Accommodation at Episode Start (where the patient was prior to hospital admission- complete if admitted from usual or other than usual accommodation)

☐ Private residence (including unit in retirement village)

☐ Residential aged care, low level care (hostel)

☐ Residential aged care, high level care (nursing home)

☐ Other

Episode Type (where the patient is receiving palliative care)

☐ Overnight admitted designated palliative care bed

☐ Overnight admitted non-designated palliative care bed

☐ Overnight admitted not further specified

Section 2 (Complete at end of episode)

Episode End Date: __ __ / __ __ / __ __ __ __ (date patient's episode of palliative care ends)

Episode End Mode

☐ Discharged to usual accommodation

☐ Discharged to other than usual accommodation

☐ Death (in hospital)

☐ Discharged to another hospital

☐ Change to acute care different ward

☐ Change to acute care same ward

☐ Change to another subacute care type e.g. rehab

☐ Other

Accommodation at Episode End (complete only if discharged to usual accommodation or other than usual accommodation)

☐ Private residence (including unit in retirement village)

☐ Residential aged care, low level care (hostel)

☐ Residential aged care, high level care (nursing home)

☐ Other

Appendix W   PCOC Inpatient Episode Form2

[Insert Service Name Here]	PCOC palliative care outcomes collaboration	(Please complete or affix Label here) UPI: Surname First name: DOB:												

PCOC Assessment														
Instructions: [Insert here]														

		Year 20 Date												
		Time												
Clinician Rated Score	**Phase (1-5)**													
	RUG ADL (total 4-18)													
	Bed Mobility													
	Toileting													
	Transfers													
	Eating													
	Total RUG:													
	Problem Severity Score (0-3)													
	Pain													
	Other Symptoms													
	Psychological/ Spiritual													
	Family / Carer													
	Australian modified Karnofsky (10-100)													
Patient Rated Score	**Symptom Assessment Scale (0-10)**													
	Difficulty sleeping													
	Appetite problems													
	Nausea													
	Bowel problems													
	Breathing problems													
	Fatigue													
	Pain													
	Patient = pt Proxy = pr													
Reason for Phase End (1-7)														
Staff Initials:														

2

PALLIATIVE CARE PHASE

Clinician rated

1. STABLE Symptoms are adequately controlled by established management
2. UNSTABLE Development of a new problem or a rapid increase in the severity of existing problems
3. DETERIORATING Gradual worsening of existing symptoms or the development of new but expected problems
4. TERMINAL Death likely in a matter of days
5. BEREAVED Death of a patient has occurred and the carers are grieving

Refer to complete Phase Definitions

PROBLEM SEVERITY SCORE

Clinician rated

For the following 4 domains assess the severity of problems as;

0 = Absent; 1 = Mild; 2 = Moderate; 3 = Severe

PAIN: Record the severity of problems relating to pain

OTHER SYMPTOMS: Record the severity of problems relating to other symptoms.

PSYCHOLOGICAL / SPIRITUAL: Record the severity of psychological/spiritual problems of the patient.

FAMILY / CARER: Record the severity of family/carer problems.

Scores trigger referrals and more in-depth assessment

SYMPTOM ASSESSMENT SCALE

Patient rated, proxy when patient unable

The patient is asked to rate **distress relating to each symptom** from **0** being absent and **10** being the worst possible.

As part of your assessment, inform the patient that you are going to ask them about the symptoms they may be experiencing or the symptoms that are causing a problem.

When asking about these symptoms for the 1st time, say:

"The symptom assessment scale measures some symptoms you may experience on a scale of 0-10. The score can help you to talk about what is important to you and can help identify the distress of each symptom. The score can also be used to see whether treatments or medications are working".

RUG-ADL

Resource Utilisation Group – Activities of Daily Living

Clinician rated

For Bed Mobility, Toileting   **For Eating**

and Transfers

1. Independent or supervision only
3. Limited physical assistance
4. Other than two person physical assist
5. Two or more person physical assist

Refer to complete RUG-ADL definitions

For Eating:
1. Independent or supervision only
2. Limited assistance
3. Extensive assistance/total dependence/tube fed

AKPS

Australian modified Karnofsky Performance Scale

Clinician rated

100	Normal, no complaints or evidence of disease
90	Able to carry on normal activity, minor signs or activity
80	Normal activity with effort, some signs or symptoms of disease
70	Care for self, unable to carry on normal activity or to do active work
60	Occasional assistance but is able to care for most needs
50	Requires considerable assistance and frequent medical care
40	In bed more that 50% of the time
30	Almost completely bedfast
20	Totally bedfast & requiring nursing care by professionals and/or family
10	Comatose or barely rousable

A proxy assessment is when the patient is unable to communicate their symptom distress. A proxy can be either a clinician or a family / carer who can answer the SAS items from the patient's perspective

- Difficulty sleeping
- Appetite problems
- Nausea
- Bowel problems
- Breathing problems
- Fatigue
- Pain

Please note that this is a measure of **distress caused by each symptom**, not a measure of severity or intensity.

REASON FOR PHASE END - the reason this phase ended.

If the reason for phase end is discharge record the other assessment scores at the time of phase end

1. Change to Stable Phase 5. Death
2. Change to Unstable Phase 6. Bereavement Phase end
3. Change to Deteriorating Phase 7. Discharge
4. Change to terminal phase

Appendix X   Supplementary Clinical Attributes

ROCKWOOD FRAILTY INDEX

Deficits Used in the Frailty Index

On admission to the designated subacute GEM or Psychogeriatric Ward identify whether the patient suffers deficits in any of the following areas, by ticking the relevant boxes:

MRN:		Date:	Patient Surname:
Ward:	Staff Completing Form:		Patient Given Name:

	Deficit Areas	Tick if relevant		Deficit Areas	Tick if relevant
1	Eyesight		31	Chest problems	
2	Hearing		32	Trouble with stomach	
3	Help required to eat		33	Kidney trouble	
4	Help required to dress		34	Losing control of bladder	
5	Ability to take care of appearance		35	Losing control of bowels	
6	Help required to walk		36	Diabetes	
7	Help required to get in and out of bed		37	Trouble with feet or ankles	
8	Help required to go to the bathroom		38	Skin problems	
9	Help required to take bath or shower		39	Fractures	
10	Help required to use telephone		40	Trouble with nerves	
11	Help required to travel beyond walking distance				
12	Help required with shopping				
13	Help required to prepare own meals				
14	Help required to do housework				
15	Ability to take medications				
16	Ability to handle own money				
17	Self-rated health				
18	Troubles present normal activities				
19	Lives alone				
20	Having a cough				
21	Feeling tired				
22	Nose stuffed up or sneezing				
23	High blood pressure				
24	Heart circulation problems				
25	Stroke or effects of stroke				
26	Arthritis or rheumatism				
27	Parkinson's disease				
28	Eye trouble				
29	Ear trouble				
30	Dental problems				

MRN:		Date:	Patient Surname:
Ward:	Staff Completing Form:		Patient Given Name:

Confusion Assessment Method (CAM)

(Adapted from Inouye et al., 1990)

Patient's Name: _____ Date: _____

Instructions: Assess the following factors.

Acute Onset

1. Is there evidence of an acute change in mental status from the patient's baseline?

    ___ YES   ___ NO   ___ UNCERTAIN   ___ NOT APPLICABLE

Inattention
(*The questions listed under this topic are repeated for each topic where applicable.*)

2A. Did the patient have difficulty focusing attention (for example, being easily distractible or having difficulty keeping track of what was being said)?

    _____ Not present at any time during interview

    _____ Present at some time during interview, but in mild form

    _____ Present at some time during interview, in marked form

    _____ Uncertain

2B. (*If present or abnormal*) Did this behavior fluctuate during the interview (that is, tend to come and go or increase and decrease in severity)?

    ___ YES   ___ NO   ___ UNCERTAIN   ___ NOT APPLICABLE

2C. (*If present or abnormal*) Please describe this behavior.

    _____

    _____

Disorganized Thinking

3. Was the patient's thinking disorganized or incoherent, such as rambling or irrelevant conversation, unclear or illogical flow of ideas, or unpredictable, switching from subject to subject?

    ___ YES   ___ NO   ___ UNCERTAIN   ___ NOT APPLICABLE

Altered Level of Consciousness

4. Overall, how would you rate this patient's level of consciousness?

    _____ Alert (*normal*)

    _____ Vigilant (*hyperalert, overly sensitive to environmental stimuli, startled very easily*)

    _____ Lethargic (*drowsy, easily aroused*)

    _____ Stupor (*difficult to arouse*)

    _____ Coma (*unarousable*)

    _____ Uncertain

Disorientation

5. Was the patient disoriented at any time during the interview, such as thinking that he or she was somewhere other than the hospital, using the wrong bed, or misjudging the time of day?

    ___ YES   ___ NO   ___ UNCERTAIN   ___ NOT APPLICABLE

Memory Impairment

6. Did the patient demonstrate any memory problems during the interview, such as inability to remember events in the hospital or difficulty remembering instructions?

    ___ YES   ___ NO   ___ UNCERTAIN   ___ NOT APPLICABLE

Perceptual Disturbances

7. Did the patient have any evidence of perceptual disturbances, such as hallucinations, illusions, or misinterpretations (for example, thinking something was moving when it was not)?

    ___ YES   ___ NO   ___ UNCERTAIN   ___ NOT APPLICABLE

Psychomotor Agitation

8A. At any time during the interview, did the patient have an unusually increased level of motor activity, such as restlessness, picking at bedclothes, tapping fingers, or making frequent, sudden changes in position?

    ___ YES   ___ NO   ___ UNCERTAIN   ___ NOT APPLICABLE

Psychomotor Retardation

8B. At any time during the interview, did the patient have an unusually decreased level of motor activity, such as sluggishness, staring into space, staying in one position for a long time, or moving very slowly?

    ___ YES   ___ NO   ___ UNCERTAIN   ___ NOT APPLICABLE

Altered Sleep-Wake Cycle

9. Did the patient have evidence of disturbance of the sleep-wake cycle, such as excessive daytime sleepiness with insomnia at night?

    ___ YES   ___ NO   ___ UNCERTAIN   ___ NOT APPLICABLE

Scoring:

For a diagnosis of delirium by CAM, the patient must display:

1. Presence of acute onset and fluctuating discourse

AND

2. Inattention

AND EITHER

3. Disorganized thinking

OR

4. Altered level of consciousness

Source:

Inouye SK, van Dyck CH, Alessi CA, Balkin S, Siegal AP, Horwitz RI. Clarifying confusion: the confusion assessment method. A new method for detection of delirium. *Ann Intern Med*. 1990;113(12):941-948.

Mini-Mental Screening Tool

MRN:		Date:	Patient Surname:
Ward:	Staff Completing Form:		Patient Given Name:

Screening Tool: The Mini-Mental State Examination (MMSE)

Patient _____Examiner _____ Date _____

Maximum	Score	
		Orientation
5		• What is the (year) (season) (date) (day) (month)?
5		• Where are we (state) (country) (town) (hospital) (floor)?
3		**Registration** • Name 3 objects: 1 second to say each. Then ask the patient all 3 after you have said them. Give 1 point for each correct answer. Then repeat until he/she learns all 3. Count trials and record. Trials _____
5		**Attention and Calculation** • Serial 7's. 1 point for each correct answer. Stop after 5 answers. Alternatively spell "world" backward.
3		**Recall** • Ask for the 3 objects repeated above. Give 1 point for each correct answer.
		Language
2		• Name a pencil and watch.
1		• Repeat the following "No ifs, ands or buts."
3		• Follow a 3-stage command: "Take a paper in your hand, fold it in half and put it on the floor."
1		• Read and obey the following CLOSE YOUR EYES.
1		• Write a sentence.
1		• Copy the design shown.

_____ **Total Score**

ASSESS level of consciousness along a continuum _____

Alert Drowsy Stupor Coma

more information on reverse →

The Mini Mental State Examination (MMSE)

By: Lenore Kurlowicz, PhD, RN, CS, and Meredith Wallace, PhD, RN, MSN

WHY: Cognitive impairment is no longer considered a normal and inevitable change of aging. Although older adults are at higher risk than the rest of the population, changes in cognitive function often call for prompt and aggressive action. In older patients, cognitive functioning is especially likely to decline during illness or injury. The nurses' assessment of an older adult's cognitive status is instrumental in identifying early changes in physiological status, ability to learn, and evaluating responses to treatment.

BEST TOOL: The MMSE is a tool that can be used to systematically and thoroughly assess mental status. It is an 11-question measure that tests five areas of cognitive function: orientation, registration, attention and calculation, recall and language. The maximum score is 30. A score of 23 or lower is indicative of cognitive impairment. The MMSE takes only 5-10 minutes to administer and is therefore practical to use repeatedly and routinely.

TARGET POPULATION: The MMSE is effective as a screening tool for cognitive impairment with older, community dwelling, hospitalized and institutionalized adults. Assessment of an older adult's cognitive function is best achieved when it is done routinely, systematically and thoroughly.

VALIDITY/RELIABILITY: Since its creation in 1975, the MMSE has been validated and extensively used in both clinical practice and research.

STRENGTHS AND LIMITATIONS: The MMSE is effective as a screening instrument to separate patients with cognitive impairment from those without it. In addition, when used repeatedly the instrument is able to measure changes in cognitive status that may benefit from intervention. However, the tool is not able to diagnose the case for changes in cognitive function and should not replace a complete clinical assessment of mental status. In addition, the instrument relies heavily on verbal response and reading and writing. Therefore, patients that are hearing and visually impaired, intubated, have low English literacy, or those with other communication disorders may perform poorly even when cognitively intact.

MORE ON THE TOPIC:

Folstein, M., Folstein, S.E., McHugh, P.R. (1975). "Mini-Mental State" a Practical Method for Grading the Cognitive State of Patients for the Clinician. *Journal of Psychiatric Research*, 12(3); 189-198.

Foreman, M.D., Grabowski, R. (1992). Diagnostic Dilemma: Cognitive Impairment in the Elderly. *Journal of Gerontological Nursing*, 18; 5-12.

Foreman, M.D., Fletcher, K., Mion, L.C., & Simon, L. (1996). Assessing Cognitive Function. *Geriatric Nursing*, 17; 228-233

How to obtain permission to use the Mini-Mental State Examination:

The Mini-Mental State Examination is copyright protected. Materials can be purchased through www.minimental.com.

Appendix Y   Tier 2 Clinic Codes

Tier 2 - Version_2.0_ 25/02/2013
10.01 Hyperbaric Medicine
10.02 Interventional Imaging
10.03 Minor Surgical
10.04 Dental
10.05 Angioplasty/Angiography
10.06 Endoscopy – Gastrointestinal
10.07 Endoscopy- Urological/Gynaecological
10.08 Endoscopy- Orthopaedic
10.09 Endoscopy – Respiratory/ENT
10.10 Renal Dialysis – Hospital Delivered
10.11 Medical Oncology (Treatment)
10.12 Radiation Oncology (Treatment)
10.13 Minor Medical Procedures
10.14 Pain Management Interventions
10.15 Renal Dialysis – Haemodialysis – Home Delivered
10.16 Renal Dialysis – Peritoneal Dialysis – Home Delivered
10.17 Total Parenteral Nutrition – Home Delivered
10.18 Enteral Nutrition – Home Delivered
20.01 Transplants
20.02 Anaesthetics
20.03 Pain Management
20.04 Developmental Disabilities
20.05 General Medicine
20.06 General Practice and Primary Care
20.07 General Surgery
20.08 Genetics
20.09 Geriatric Medicine
20.10 Haematology
20.11 Paediatric Medicine
20.12 Paediatric Surgery
20.13 Palliative Care
20.14 Epilepsy
20.15 Neurology
20.16 Neurosurgery
20.17 Ophthalmology
20.18 Ear, Nose and Throat (ENT)
20.19 Respiratory
20.20 Respiratory – Cystic Fibrosis
20.21 Anti-coagulant Screening and Management
20.22 Cardiology
20.23 Cardiothoracic
20.24 Vascular Surgery
20.25 Gastroenterology
20.26 Hepatobiliary
20.27 Craniofacial
20.28 Metabolic Bone
20.29 Orthopaedics
20.30 Rheumatology
20.31 Spinal
20.32 Breast
20.33 Dermatology
20.34 Endocrinology
20.35 Nephrology
20.36 Urology

Tier 2 - Version_2.0_ 25/02/2013
20.37 Assisted Reproductive Technology
20.38 Gynaecology
20.39 Gynaecology Oncology
20.40 Obstetrics
20.41 Immunology
20.42 Medical Oncology (Consultation)
20.43 Radiation Oncology (Consultation)
20.44 Infectious Diseases
20.45 Psychiatry
20.46 Plastic and Reconstructive Surgery
20.47 Rehabilitation
20.48 Multidisciplinary Burns Clinic
20.49 Geriatric Evaluation and Management (GEM)
20.50 Psychogeriatric
20.51 Sleep Disorders
30.01 General Imaging
30.02 Medical Resonance Imaging (MRI)
30.03 Computerised Tomography (CT)
30.04 Nuclear Medicine
30.05 Pathology (Microbiology, Haematology, Biochemistry)
30.06 Positron Emission Tomography (PET)
30.07 Mammography Screening
30.08 Clinical Measurement
40.01 Aboriginal and Torres Strait Islander Health Clinic
40.02 Aged Care Assessment
40.03 Aids and Appliances
40.04 Clinical Pharmacy
40.05 Hydrotherapy
40.06 Occupational Therapy
40.07 Pre-Admission and Pre-Anaesthesia
40.08 Primary Health Care
40.09 Physiotherapy
40.10 Sexual Health
40.11 Social Work
40.12 Rehabilitation
40.13 Wound Management
40.14 Neuropsychology
40.15 Optometry
40.16 Orthoptics
40.17 Audiology
40.18 Speech Pathology
40.21 Cardiac Rehabilitation
40.22 Stomal Therapy
40.23 Nutrition/Dietetics
40.24 Orthotics
40.25 Podiatry
40.27 Family Planning
40.28 Midwifery and Maternity
40.29 Psychology
40.30 Alcohol and Other Drugs
40.31 Burns
40.32 Continence
40.33 General Counselling
40.34 Specialist Mental Health
40.35 Palliative Care
40.36 Geriatric Evaluation and Management (GEM)

Tier 2 - Version_2.0_ 25/02/2013
40.37 Psychogeriatric
40.38 Infectious Diseases
40.39 Neurology
40.40 Respiratory
40.41 Gastroenterology
40.42 Circulatory
40.43 Hepatobiliary
40.44 Orthopaedics
40.45 Dermatology
40.46 Endocrinology
40.47 Nephrology
40.48 Haematology and Immunology
40.49 Gynaecology
40.50 Urology
40.51 Breast
40.52 Oncology
40.53 General Medicine
40.54 General Surgery
40.55 Paediatrics
40.56 Falls Prevention
40.57 Memory and Cognition
40.58 Hospital Avoidance Programs
40.59 Post Acute Care
the non-admitted clinic not specified above

Appendix Z   AN-SNAP classes (Version 3)

The intellectual property associated with the AN-SNAP classification is owned by the University of Wollongong. However, the University has placed AN-SNAP in the public domain and is happy for others to use it without modification or development. AN-SNAP cannot be modified or developed without the consent of the University.

For further information please contact:

The Australian Health Services Research Institute (AHSRI)
Building 234 (iC Enterprise 1) Innovation Campus
University of Wollongong
WOLLONGONG NSW 2522
Phone: 02 4221 4411

Class	Episode Type	Description
3-101	Overnight Palliative Care	Palliative care, admit for assessment only
3-102	Overnight Palliative Care	Stable phase, RUG-ADL 4
3-103	Overnight Palliative Care	Stable phase, RUG-ADL 5-17
3-104	Overnight Palliative Care	Stable phase, RUG-ADL 18
3-105	Overnight Palliative Care	Unstable phase, RUG-ADL 4-17
3-106	Overnight Palliative Care	Unstable phase, RUG-ADL 18
3-107	Overnight Palliative Care	Deteriorating phase, RUG-ADL 4-14
3-108	Overnight Palliative Care	Deteriorating phase, RUG-ADL 15-18, age <=52
3-109	Overnight Palliative Care	Deteriorating phase, RUG-ADL 15-18, age >=53
3-110	Overnight Palliative Care	Terminal phase, RUG-ADL 4-16
3-111	Overnight Palliative Care	Terminal phase, RUG-ADL 17-18
3-112	Overnight Palliative Care	Bereavement phase
3-151	All ambulatory Palliative Care	Medical only
3-152	All ambulatory Palliative Care	Therapies only
3-153	All ambulatory Palliative Care	Stable phase, multidisciplinary
3-154	All ambulatory Palliative Care	Stable phase, nursing only, Palliative Care Problem Severity Score (PCPSS) <=6, RUG-ADL 4, age>=67
3-155	All ambulatory Palliative Care	Stable phase, nursing only, PCPSS <=6, RUG-ADL 4, age<=66
3-156	All ambulatory Palliative Care	Stable phase, nursing only, PCPSS <=6, RUG-ADL 5-18
3-157	All ambulatory Palliative Care	Stable phase, nursing only, PCPSS >=7
3-158	All ambulatory Palliative Care	Unstable phase, multidisciplinary, RUG-ADL 4, PCPSS <=7
3-159	All ambulatory Palliative Care	Unstable phase, multidisciplinary, RUG-ADL 4, PCPSS >=8
3-160	All ambulatory Palliative Care	Unstable phase, multidisciplinary, RUG-ADL 5-18
3-161	All ambulatory Palliative Care	Unstable phase, nursing only, RUG-ADL <=14, age>=60
3-162	All ambulatory Palliative Care	Unstable phase, nursing only, RUG-ADL <=14, age<=59
3-163	All ambulatory Palliative Care	Unstable phase, nursing only, RUG-ADL >=15
3-164	All ambulatory Palliative Care	Deteriorating phase, multidisciplinary, PCPSS <=6
3-165	All ambulatory Palliative Care	Deteriorating phase, multidisciplinary, PCPSS >=7, RUG<=10
3-166	All ambulatory Palliative Care	Deteriorating phase, multidisciplinary, PCPSS >=7, RUG>=11
3-167	All ambulatory Palliative Care	Deteriorating phase, nursing only, RUG-ADL 4
3-168	All ambulatory Palliative Care	Deteriorating phase, nursing only, RUG-ADL 5-18
3-169	All ambulatory Palliative Care	Terminal phase, multidisciplinary
3-170	All ambulatory Palliative Care	Terminal phase, nursing only
3-171	All ambulatory Palliative Care	Bereavement phase, age >=45
3-172	All ambulatory Palliative Care	Bereavement phase, age <=44
3-201	Overnight Rehabilitation	Rehabilitation, admit for assessment only
3-202	Overnight Rehabilitation	Brain, Neurological, Spinal & Major Multiple Trauma, FIM motor 13
3-203	Overnight Rehabilitation	All other impairments, FIM motor 13
3-204	Overnight Rehabilitation	Stroke, FIM motor 63-91, FIM cognition 20-35
3-205	Overnight Rehabilitation	Stroke, FIM motor 63-91, FIM cognition 5-19

Class	Episode Type	Description
3-206	Overnight Rehabilitation	Stroke, FIM motor 47-62, FIM cognition 16-35
3-207	Overnight Rehabilitation	Stroke, FIM motor 47-62, FIM cognition 5-15
3-208	Overnight Rehabilitation	Stroke, FIM motor 14-46, age>=75
3-209	Overnight Rehabilitation	Stroke, FIM motor 14-46, age<=74
3-210	Overnight Rehabilitation	Brain Dysfunction, FIM motor 56-91, FIM cognition 32-35
3-211	Overnight Rehabilitation	Brain Dysfunction, FIM motor 56-91, FIM cognition 24-31
3-212	Overnight Rehabilitation	Brain Dysfunction, FIM motor 56-91, FIM cognition 20-23
3-213	Overnight Rehabilitation	Brain Dysfunction, FIM motor 56-91, FIM cognition 5-19
3-214	Overnight Rehabilitation	Brain Dysfunction, FIM motor 24-55
3-215	Overnight Rehabilitation	Brain Dysfunction, FIM motor 14-23
3-216	Overnight Rehabilitation	Neurological, FIM motor 63-91
3-217	Overnight Rehabilitation	Neurological, FIM motor 49-62
3-218	Overnight Rehabilitation	Neurological, FIM motor 18-48
3-219	Overnight Rehabilitation	Neurological, FIM motor 14-17
3-220	Overnight Rehabilitation	Spinal Cord Dysfunction, FIM motor 81-91
3-221	Overnight Rehabilitation	Spinal Cord Dysfunction, FIM motor 47-80
3-222	Overnight Rehabilitation	Spinal Cord Dysfunction, FIM motor 14-46, age>=33
3-223	Overnight Rehabilitation	Spinal Cord Dysfunction, FIM motor 14-46, age<=32
3-224	Overnight Rehabilitation	Amputation of limb, FIM motor 72-91
3-225	Overnight Rehabilitation	Amputation of limb, FIM motor 14-71
3-226	Overnight Rehabilitation	Pain Syndromes
3-227	Overnight Rehabilitation	Orthopaedic conditions, fractures, FIM motor 58-91
3-228	Overnight Rehabilitation	Orthopaedic conditions, fractures, FIM motor 48-57
3-229	Overnight Rehabilitation	Orthopaedic conditions, fractures, FIM motor 14-47, FIM cognition 19-35
3-230	Overnight Rehabilitation	Orthopaedic conditions, fractures, FIM motor 14-47, FIM cognition 5-18
3-231	Overnight Rehabilitation	Orthopaedic conditions, replacement, FIM motor 72-91
3-232	Overnight Rehabilitation	Orthopaedic conditions, replacement, FIM motor 49-71
3-233	Overnight Rehabilitation	Orthopaedic conditions, replacement, FIM motor 14-48
3-234	Overnight Rehabilitation	Orthopaedic conditions, all other, FIM motor 68-91
3-235	Overnight Rehabilitation	Orthopaedic conditions, all other, FIM motor 53-67
3-236	Overnight Rehabilitation	Orthopaedic conditions, all other, FIM motor 14-52
3-237	Overnight Rehabilitation	Cardiac
3-238	Overnight Rehabilitation	Major Multiple Trauma, FIM total 101-126
3-239	Overnight Rehabilitation	Major Multiple Trauma, FIM total 74-100 or Burns
3-240	Overnight Rehabilitation	Major Multiple Trauma, FIM total 44-73
3-241	Overnight Rehabilitation	Major Multiple Trauma, FIM total 19-43
3-242	Overnight Rehabilitation	All other impairments, FIM motor 67-91
3-243	Overnight Rehabilitation	All other impairments, FIM motor 53-66
3-244	Overnight Rehabilitation	All other impairments, FIM motor 25-52
3-245	Overnight Rehabilitation	All other impairments, FIM motor 14-24
3-251	Same Day Rehabilitation	Brain, Major Multiple Trauma & Pulmonary
3-252	Same Day Rehabilitation	Burns, Cardiac, Pain, Spine, & Neurological
3-253	Same Day Rehabilitation	All other impairments
3-254	Outpatient & Community Rehabilitation	Outpatient and community rehabilitation, medical assessment only
3-255	Outpatient & Community Rehabilitation	Outpatient and community rehabilitation, multidisciplinary assessment
3-256	Outpatient & Community Rehabilitation	Outpatient and community rehabilitation, medical treatment only
3-257	Outpatient & Community Rehabilitation	Amputation
3-258	Outpatient & Community Rehabilitation	Brain Injury and Major Multiple Trauma
3-259	Outpatient & Community Rehabilitation	Spinal Injury
3-260	Outpatient & Community Rehabilitation	Stroke and Development Disability, sole practitioner
3-261	Outpatient & Community Rehabilitation	Stroke and Development Disability, multidisciplinary, FIM motor <=80
3-262	Outpatient & Community Rehabilitation	Stroke and Development Disability, multidisciplinary, FIM motor >=81
3-263	Outpatient & Community Rehabilitation	All other impairments, sole practitioner
3-264	Outpatient & Community Rehabilitation	All other impairments, multidisciplinary, FIM motor <=80
3-265	Outpatient & Community Rehabilitation	All other impairments, multidisciplinary, FIM motor >=81

Class	Episode Type	Description
3-301	Overnight Psychogeriatric	Psychogeriatric, admit for assessment only
3-302	Overnight Psychogeriatric	HoNOS 65+ Overactive behaviour 3,4
3-303	Overnight Psychogeriatric	HoNOS 65+ Overactive behaviour 1,2 HoNOS 65+ ADL 4
3-304	Overnight Psychogeriatric	HoNOS 65+ Overactive behaviour 1,2 HoNOS 65+ ADL 0-3
3-305	Overnight Psychogeriatric	HoNOS 65+ Overactive behaviour 0 HoNOS 65+ total>=18
3-306	Overnight Psychogeriatric	HoNOS 65+ Overactive behaviour 0 HoNOS 65+ total<=17
3-307	Overnight Psychogeriatric	Long term care
3-351	Outpatient Psychogeriatric	Outpatient psychogeriatric assessment only
3-352	Community Psychogeriatric	Assessment Only
3-353	All ambulatory Psychogeriatric	Treatment, Focus of Care=acute
3-354	All ambulatory Psychogeriatric	Treatment, Focus of Care=not acute, HoNOS 65+ total <=8
3-355	All ambulatory Psychogeriatric	Treatment, Focus of Care=not acute, HoNOS 65+ total 9-13
3-356	All ambulatory Psychogeriatric	Treatment, Focus of Care=not acute, HoNOS 65+ total >=14, HoNOS 65+ Overactive 0,1
3-357	All ambulatory Psychogeriatric	Treatment, Focus of Care=not acute, HoNOS 65+ total >=14, HoNOS 65+ Overactive 2,3,4
3-401	Overnight GEM	GEM admit for assessment only
3-402	Overnight GEM	FIM cognition <=15, FIM motor 13-43
3-403	Overnight GEM	FIM cognition <=15, FIM motor 44-91, age>=84
3-404	Overnight GEM	FIM cognition <=15, FIM motor 44-91, age<=83
3-405	Overnight GEM	FIM cognition 16-35, FIM motor 13-50
3-406	Overnight GEM	FIM cognition 16-35, FIM motor 51-77
3-407	Overnight GEM	FIM cognition 16-35, FIM motor 78-91
3-451	Same Day GEM	Same day GEM, assessment Only
3-452	Outpatients & Community GEM	Outpatient and community GEM, medical assessment only
3-453	Outpatients & Community GEM	Outpatient and community GEM, multidisciplinary assessment
3-454	Same Day GEM	All same day admitted GEM
3-455	Outpatients & Community GEM	FIM motor <=40
3-456	Outpatients & Community GEM	FIM motor 41-56
3-457	Outpatients & Community GEM	FIM motor>=57, sole practitioner
3-458	Outpatients & Community GEM	FIM motor>=57, multidisciplinary
3-501	Overnight Maintenance	Respite, RUG-ADL 15-18
3-502	Overnight Maintenance	Respite, RUG-ADL 5-14
3-503	Overnight Maintenance	Respite, RUG-ADL 4
3-504	Overnight Maintenance	Nursing Home Type, RUG-ADL 11-18
3-505	Overnight Maintenance	Nursing Home Type, RUG-ADL 4-10
3-506	Overnight Maintenance	Convalescent care
3-507	Overnight Maintenance	Other maintenance, RUG-ADL 14-18
3-508	Overnight Maintenance	Other maintenance, RUG-ADL 4-13
3-509	Overnight Maintenance	Long term care, RUG-ADL 17-18
3-510	Overnight Maintenance	Long term care, RUG-ADL 10-16
3-511	Overnight Maintenance	Long term care, RUG-ADL 4-9
3-551	All ambulatory Maintenance	Medical only
3-552	All ambulatory Maintenance	Ambulatory maintenance, nursing assessment only
3-553	All ambulatory Maintenance	Ambulatory maintenance, psychosocial assessment
3-554	All ambulatory Maintenance	Ambulatory maintenance, physical therapy assessment
3-555	Same Day & Community Maintenance	Same day and community maintenance, multidisciplinary
3-556	Outpatient Maintenance	Outpatient maintenance, multidisciplinary assessment
3-557	All ambulatory Maintenance	Maintenance and support, nursing, age>=37, RUG-ADL>=5
3-558	All ambulatory Maintenance	Maintenance and support, nursing, age>=37, RUG-ADL 4
3-559	All ambulatory Maintenance	Maintenance and support, nursing, age<=36, RUG-ADL>=5
3-560	All ambulatory Maintenance	Maintenance and support, nursing, age<=36, RUG-ADL 4
3-561	All ambulatory Maintenance	Maintenance and support, physical therapy, RUG-ADL>=6
3-562	All ambulatory Maintenance	Maintenance and support, physical therapy, RUG-ADL 4,5
3-563	Community Maintenance	Community maintenance and support, multidisciplinary, age>=27, RUG-ADL 4-11

Class	Episode Type	Description
3-564	All ambulatory Maintenance	Maintenance and support, multidisciplinary, age>=27, RUG-ADL>=12
3-565	Outpatient Maintenance	Outpatient maintenance and support, multidisciplinary, age>=27, RUG-ADL 4-11
3-566	All ambulatory Maintenance	Maintenance and support, multidisciplinary, <=26 yrs
Error classes		
3-901	Overnight Palliative Care ungroupable	Data error - ungroupable
3-902	Overnight Rehabilitation ungroupable	Data error - ungroupable
3-903	Overnight GEM ungroupable	Data error - ungroupable
3-904	Overnight Psychogeriatric ungroupable	Data error - ungroupable
3-905	Overnight Maintenance ungroupable	Data error - ungroupable
3-906	All other subacute care ungroupable	Data error - ungroupable

Appendix AA   Non-admitted Manual Collection Form

Non Admitted Service Form - Clinics / Community and Outreach   ■

(Please affix patient label here)	Intentionally left blank. Site specific clinic information may be pre-printed here.

MRN: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Staff travelled to provide service ☐

ATSI ☐

Service Provision (place an X in selection unless indicated otherwise):

Location	Type (if other than face to face)	Reason for visit	Support
		Indicate reason for Visit (place an X in selection)	**Indicate what patient support was involved**
Hospital ☐	Teleconference ☐ Video Conference ☐		
Community clinic ☐	If Group, please indicate the number of patients in the session ☐ Other, specify: ☐	New ☐	Carer / family ☐
Home ☐	**Additional service characteristics**	Review ☐	Interpreter ☐
Nursing Home ☐	Private Patient ☐ Teaching or Training in session ☐	Encounter linked to an inpatient episode ☐	Aboriginal Liaison ☐

Diagnosis – reason for attendance (free text)	Significant Procedure conducted during patient encounter (free text)

Please place an X in the box appropriate to your staff category and write the direct time & indirect patient attributable time applicable to this encounter

MEDICAL X = yes		NURSING X = yes				ALLIED HEALTH	Please indicate the time spent with patient by entering number of minutes in the boxes provided	
Senior	Junior	Advanced Nurse	RN	EN	Other	AHP CODE (1-12)	DIRECT CARE (7 minutes = 07)	PATIENT ATTRIBUTABLE INDIRECT CARE
☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐

Service Utilisation

Please indicate if a high cost prosthetic or consumable was ordered or used in this patient encounter:

Consumables used (up to 3) - Refer to Consumables Reference Table ☐ ☐ ☐   **Prosthesis** used (up to 3) - Refer to Prostheses Reference Table ☐ ☐ ☐

Additional Information

Indicate any the following supplementary clinical attributes completed by placing an X in the selection

■ Confusion Assessment Method (CAM) ☐   Rockwood Frailty Score ☐

Mini-Mental ☐

Appendix BB   Subacute Manual Collection Form

SUBACUTE WARD COLLECTION FORM

Refer to high cost prosthetic and Consumable reference table:

High Cost Prosthetics (up to 3):

High Cost Consumables (up to 3):

Intentionally left blank.
Ward specific information e.g. Ward name may be pre-printed here.

MRN:

(Please affix patient label here)

Supplementary clinical data collected:			Subacute Care Type:			Carer Availability (Enter x if yes):		Carer Relationship to Patient:		Specialing:	Hours	Staff Category
PCOC	AROC		Rehabilitation			Carer Available		Family member		Night Shift		
Paediatric specific indicator(s)			Palliative Care			Carer Residency (Enter x if yes):				Day Shift		
Rockwood Frailty Index			Geriatric Evaluation & Management (GEM)			Co-resident Carer				Evening Shift		
Confusion Assessment Method (CAM)			Psychogeriatric			Non-resident Carer		Complete the fields within this dashed box by on the *Day of admission only*				
Mini-Mental			Non- acute / Maintenance									

Document time spent on patient attributable activities by placing an X in the appropriate number of squares each representing 5 minute blocks - time is grouped in hourly blocks by shift with additional space below if required)

Medical   Senior   Junior   **Nursing**   Advanced Nurse   NUM   RN   EN   OTHER

Allied Health Professional

Provide Code (refer to Reference Table e.g. Audiologist is represented by 1, Physiotherapy 6, OT 3, etc.)

Midnight (night shift)

7am (day shift)

3pm (evening shift)

Indirect Time

Appendix CC Frequently asked questions – non admitted

The following provides a quick reference to answers provided to frequently asked questions relating to the non-admitted component of the national costing study.

1. Questions about the overall study

#	Frequently asked question	Answer
1.1	Why are we doing this?	The objective of this project is to undertake a comprehensive costing study of non-admitted and subacute services resulting in the construction of a definitive baseline dataset of patient level costed data which can be used for: • Producing costs, local prices and service weights and future National Efficient Prices • Further development of current and future classifications • Informing the development of new costing standards to assist hospitals with future costing. This is your chance to influence the National Price and cost weights for the services you provide.
1.2	What are the benefits of participating?	Benefits of participating include: • Data and practice from participating hospitals will be used to inform the development of the National Efficient Price • Data collected will inform or lead to improved costing algorithms within patient costing systems • The database will be used to test the veracity of patient classifications in non-admitted and subacute settings and guide the design of future systems • Each participating site will receive copies of their own processed data • Networking opportunities with other similar organisations participating in the study either within their State or Territory or in other jurisdictions • Capacity to support and inform local research into non-admitted or subacute care • Access to aggregated site data from other participating sites, thus providing a capacity to benchmark (pending approval / feedback from IHPA).
1.3	How long are we collecting data for?	The data collection period is 12 weeks, commencing 15 July 2013.

2. Questions relating to form structure, printing and general completion information

#	Frequently asked question	Answer
2.1	What do the form colour codes mean?	The Salmon coloured areas of the form are mandatory and must be completed by the clinician(s) for each encounter. The Grey coloured areas of the form could be filled out prior to the patient encounter by a non-clinical member of staff. The Yellow coloured areas of the form are to be completed by the clinician(s) for each encounter if, and when, appropriate.
2.2	What are the mandatory fields on the form	Salmon coloured sections of the form and the Medical Record Number (MRN) are mandatory
2.3	What do I do if a form is not completely filled out?	The Onsite Project Officer is responsible for liaising with relevant clinicians to complete the form if possible or practical. The Onsite Project Officer should assess if additional training is required in cases where non completion appears to be systematic e.g. linked to particular clinics or clinicians.
2.4	What do I do if a clinician refuses to fill out a form?	Please escalate this issue to the EY Jurisdictional Representative and your site Executive project sponsor to resolve. The Executive project sponsor may liaise with the clinician's head of department to resolve the issues.
2.5	What will I do if I lose the batch header?	Your Onsite Project Officer is able to re-print batch headers.
2.6	Can the collection form be printed in Black and White?	Yes, the form is still optical character recognition (OCR) compatible in Black & White, however to help clinicians focus on the key areas they need to complete on the form, it is recommended that the forms are printed in colour. The instructions for completing the forms also refer to the colour codes and their importance.
2.7	Can I enter a tick in the boxes?	Please use crosses ('X') rather than ticks (√), as crosses are more accurately read by the OCR scanning firm.
2.8	Where can I find instructions on filling out the forms?	All instructions on how to fill in the forms can be found in the project reference guide document titled "A Reference Guide for Hospitals participating in the National Non-admitted and Subacute admitted Costing Study". A copy of the reference guide is available from your Onsite Project Officer. An A3 poster on how to complete the form has also been provided to your Onsite Project Officer in hard and soft copy.
2.9	Can any colour pen or a pencil be used to complete the form?	Yes, any colour pen or a pencil (except for white) can be used to complete the form.

#	Frequently asked question	Answer
2.10	Will the forms be pre-populated with standard information for the clinic such as clinic name and code?	On Site Project Officers will be provided with a macro that can be used to pre-populate forms based on clinic information provided by the sites. This macro can also be used to generate batch headers. Some states are developing software to facilitate the pre-population process from local booking systems.
2.11	Can the forms be photocopied?	No. Form must not be photocopied - the OCR firm scanning machines cannot read photocopied forms. Forms have to be printed from a printer.
2.12	Will my patient label fit the form?	The OCR firm has confirmed that the forms can accommodate label sizes up to 120mm width x 45mm height - this includes the use of space around the patient label box without affecting required data field. The maximum label size we have received from participating sites so far is 99mm Width x 38.1mm height (from a site that has recently introduced a new bigger label), hence the forms should be ok. In the unlikely event that a site has a larger label size than 120mm width x 45mm height, we will design a specific solution for that site.
2.13	How do staff that travel to provide care get forms completed?	Staff who travel to provided care are expected to take print outs of the form with them to their patient appointment. Staff who travel to provide care are expected to submit their completed forms to their Onsite Project Officer / nominee / agreed location as soon as it is practicably possible.
2.14	Can we punch holes in the form?	Yes as long as there is no data cut away when form is punched.
2.15	Why is there is no place to write the date on the non-admitted forms?	The date will be entered on the batch header to be pre-printed by the Onsite Project Officer. The macros provided to the Onsite Project Officer to be used to generate the form can also pre-print the date on the forms of this information is entered prior to printing the forms.
2.16	Is the hospital code meant to be written on the individual form or is it for the batch headers?	The hospital code will be entered on the batch header to be pre-printed by the Onsite Project Officer. The macros provided to the Onsite Project Officer to be used to generate the form can also pre-print the hospital code on the forms of this information is entered prior to printing the forms.
2.17	Which box should be crossed for 'Location' on the non-admitted form when services are provided to clients in a hostel or group home?	Put a cross next to Nursing Home.
2.18	What are the implications if forms are not completed correctly?	The form may be invalid and data contained on it could be excluded from the study.

3. Questions relating to definitions on data capture form

#	Frequently asked question	Answer
3.1	What is meant by Carers?	We mean non-professional carers e.g. a patient being cared for at home by their friend or family rather than a patient being cared for by professional carers in an institution.
3.2	What do you mean by Indirect time?	This is time spent on activities that can be directly related back to an individual patient that does not necessarily require the patient to be present or in direct contact with the clinician. Examples include, case conferences, care plans, family meetings, organising equipment / community / home support.
3.3	Which clinical professionals are classed as allied health?	For the purposes of this study, Allied Health clinicians are clinicians other than medical and nursing staff. Allied Health clinicians include Pharmacists, Psychologists, Physiotherapists, Dieticians etc. Reference should be made to the Study Reference Guide for the complete listing.
3.4	What is a Significant Procedure?	This is the most significant treatment in terms of resource consumption performed on the patient during the patient encounter e.g. excision of a lump on skin, suture removal etc.
3.5	What is the definition of a Private Patient?	A private patient is anyone who has an external payer including bulk billed Medicare, private health insurer and payment via own funds.
3.6	What do you mean by 'Location' on the non-admitted Service Form?	Location is the setting where the clinician is providing the service to the patient for the recorded encounter.
3.7	Can I record my travel time to see the patient as indirect time?	No. Travel costs will be still be allocated but treated as an overhead in the cost allocation process.
3.8	What do you mean by Hospital Code?	This is the NHCDC facility code, NAAA e.g. '2RRH' for the Royal Rehabilitation Hospital in NSW, and '8ASH' for Alice Springs Hospital in NT.
3.9	What does 'encounter linked to an inpatient episode' on the non-admitted data form under	'Encounter linked to an inpatient episode' means a post discharge follow up and an encounter in advance of admission such as a pre-anaesthetic clinic.

#	Frequently asked question	Answer
	'reason for visit' mean exactly?	

4. Questions relating to support

#	Frequently asked question	Answer
4.1	How many Onsite Project Officers are required?	The number of Onsite Project Officers required depends on a number of factors including the number of clinics, spread of clinic locations and participation in either or both elements of the study (non-admitted and subacute admitted services). The right number is the number required to make the study a success for you as agreed with the Independent Hospital Pricing Authority (IHPA). The IHPA has offered to fund the role for duration of time to be agreed between you and them.
4.2	What skills are required by the Onsite Project Officers?	It is recommended the Onsite Project Officer has local knowledge of the hospital's subacute and non-admitted services including clinic locations, number of clinic and types of clinics.
4.3	How do I get further information and support?	Clinicians should contact their Onsite Project Officers in the first instance who should be able to provide the information or support required. Onsite project officers should contact their EY Jurisdictional Officer as detailed in the project reference guide titled "A Reference Guide for Hospitals participating in the National Non-admitted and Subacute admitted Costing Study" if they have any questions or require support. Additional information on available support is detailed in the document titled 'Engagement Framework and Strategy for Hospitals participating in the National Non-admitted and Subacute admitted Costing Study'. Note that a different approach is in place for NSW sites.
4.4	Will we get any training on how to fill out these forms?	Training sessions and workshops have been, or will be, scheduled to ensure that staff participating in the site collections, Onsite Project Officers and Jurisdiction representatives fully understand what is expected during the study period including how to prepare, distribute, collate and what to do with the forms on completion. If you have not attended or require further training, please contact your Onsite Project Officer.
4.5	Will a toolkit be provided to assist sites?	Yes a standard tool kit will be provided to each site which includes: • These Frequently Asked Questions (FAQs) • Study Reference Guide • Engagement Framework and Strategy document • Campaign flyer about the study • Flyer on how to fill in the form • CEO memorandum template • 20 x document folders • 2 x Accordion folders • 10 boxes for mailing / courier pick up • Allied Health Reference Table • Top 20 Consumables Reference Table Template • Top 20 Prosthesis Reference Table Template • NHCDC Facility Code / Hospital Code Reference Table • Non-admitted Clinic Code Reference Table • Subacute Admitted Clinic /Ward Code Reference Table • Instructions for completing the non-admitted Services Form • Instructions for completing the subacute admitted Form • Dispatch labels for courier company • Instructions for arranging courier pickup

5. Questions relating to costs or financial data

#	Frequently asked question	Answer
5.1	Which average staff salary rates by staff category are required?	The average staff salary hourly rate for staff categories allocated to the outpatient or subacute admitted areas as per the staff categories on the collection forms.
5.2	What is the threshold or criteria for a high cost consumable or prosthesis?	As a general guide, high cost prosthesis and consumables are those with a unit cost of $50 or more, however this level can be adjusted locally to suit specific clinical or local requirements or preferences.
5.3	Which nurse types should be grouped together for the nurse labour costs?	The nursing labour costs to be provided should align to the broad headings on the data capture form. Secondly the broad headings cover the following categories of nursing staff: Advanced Nurse (includes nurse practitioner, clinical nurse consultant, clinical nurse specialist) NUM (nurse unit manager) RN (registered nurse, Midwives) EN (enrolled nurse)

#	Frequently asked question	Answer
		Other (includes assistant in nursing)

6. Questions relating to form completion and time capture

#	Frequently asked question	Answer
6.1	Patient comes into the Continence clinic today and sees the physio. Then tomorrow the physio spends an hour working on a care plan for that patient and the day after spends another hour. Is it expected that this time is captured, and if so, how should be it done?	Yes the time should be captured where practical to do so. For indirect activity completed on a day other than the day of the direct event, an additional form should be completed identifying the indirect time, the medical record number and the date of the original direct event. Any relevant attributable indirect activity occurring prior to the time of the direct event should be included on the form at the time of the direct event. The best way to do this is to provide Allied Health staff with a bundle of forms which they can complete for each patient at the end of the day for all indirect activity.
6.2	How is time spent with groups recorded for non-admitted patients?	Please complete one form per group. There is no need to enter the MRN on the form. The number of patients within the group must also be recorded in the space provided on the form. The clinician total time spent on the group session must be recorded e.g. 30 mins or 60 minutes – EY will apply defined rules to allocate the time to each patient.
6.3	How do we handle the clinical time including physicians' time for infusion clinics (Chemo, TPN) and dialysis? Do the clinicians (nurses) only put down their direct time they spend with the patient (set up and breakdown etc.) and not the entire time the patient was in clinic/procedure?	Only capture direct time for procedural areas/ clinics i.e. time actually spent with the patient and not the other times the patient was in the clinic / procedure where the clinician was not providing direct care.
6.4	How do you record numbers less than 10 on the forms e.g. 7 minutes clinical time, Allied Health Professional code 4 etc.?	The OCR scanning machine can read numbers less than 10 written with a zero in front or standalone e.g. '07' or '7', '04' or '4' etc.
6.5	How do we record pre-attendance effort?	Pre-attendance effort refers to activities intended to facilitate patient attendance at the clinics. Pre-attendance effort time is assumed to be roughly the same for everyone or does not differ depending on patient characteristics and will get allocated on average to everyone. The costs will still get captured but allocated as averages therefore no need to record this time.
6.6	Are we required to record wards people, clerks, porters and other non-clinical staff time such as time to assist lifting a patient onto a bed etc.?	No. Non clinician time related to the ward will get allocated as an average to all non-admitted patients.
6.7	How do we record 'Did not Attend' (DNA) occurrences?	Please enter 'DNA' in the Diagnosis field if the patient Did Not Attend (DNA). DNA information can also be obtained from the PAS system and / or the outpatient booking system.
6.8	How do we record medical and nursing student time?	Medical and Nursing student time are not required to be captured as part of this study.
6.9	If my MRN number is less than 11 digits, how do I enter this on the form?	Write you MRN number as per you site systems. Where you start writing your MRN number in the box does not matter e.g. from the first, second, third box, left to right or right to left etc. They just need to be within the 11 boxes provided and have no spaces.
6.10	Are drugs classed as consumables in this study - particularly in the area of mental health where drugs may be a high cost item?	No – A separate Pharmacy extract will be obtained allowing pharmacy items to be linked to the patient using the MRN.
6.11	Do we capture the time for phlebotomy staff during the study?	Yes we need the supplementary assessments done for patients who are on the ward on day one of the project. This may be a case of recording / entering the most recent supplementary assessment completed during that episode or performing the supplementary assessments at soon as practicably possible for those patients.
6.12	How do we correct errors on the forms? We are finding that many forms are being fixed with liquid paper. There appears to be confusion as to whether this is permissible or not.	The OCR company can confirmed the following regarding the use of liquid paper and scribbling out / cancelling entries on the collection forms: It is ok to use liquid paper or correction tape to correct errors on both the non-admitted and subacute admitted forms. It is ok to scribble out / cancel out an 'X' in a box on both the non-admitted and subacute admitted forms if entered in error. It is ok to scribble out / cancel out written numbers on both the non-admitted and subacute admitted forms. The correct entry, if applicable, should be made next to the scribbled out entry, even if the new entry goes outside the form field box - the OCR machine can still read this.

Appendix DD   Frequently asked questions – subacute

The following provides a quick reference to answers provided to frequently asked questions relating to the **subacute admitted component** of the national costing study.

1. Questions about the overall study

#	Frequently asked question	Answer
1.1	Why are we doing this?	The objective of this project is to undertake a comprehensive costing study of non-admitted and subacute services resulting in the construction of a definitive baseline dataset of patient level costed data which can be used for: • Producing costs, local prices and service weights and future National Efficient Prices • Further development of current and future classifications • Informing the development of new costing standards to assist hospitals with future costing. This is your chance to influence the National Price and cost weights for the services you provide.
1.2	What are the benefits of participating?	Benefits of participating include: • Data and practice from participating hospitals will be used to inform the development of the National Efficient Price • Data collected will inform or lead to improved costing algorithms within patient costing systems • The database will be used to test the veracity of patient classifications in non-admitted and subacute settings and guide the design of future systems • Each participating site will receive copies of their own processed data • Networking opportunities with other similar organisations participating in the study either within their State or Territory or in other jurisdictions • Capacity to support and inform local research into non-admitted or subacute care • Access to aggregated site data from other participating sites, thus providing a capacity to benchmark (pending approval / feedback from IHPA).
1.3	How long are we collecting data for?	The data collection period is 12 weeks, commencing 15 July 2013.

2. Questions relating to form structure, printing and general completion information

#	Frequently asked question	Answer
2.1	What do the form colour codes mean?	The Salmon coloured areas of the form are mandatory and must be completed by the clinician(s) for each encounter. The Grey coloured areas of the form could be filled out prior to the patient encounter by a non-clinical member of staff. The Yellow coloured areas of the form are to be completed by the clinician(s) for each encounter if, and when, appropriate.
2.2	What are the mandatory fields on the form	Salmon coloured sections of the form and the Medical Record Number (MRN) are mandatory
2.3	What do I do if a form is not completely filled out?	The Onsite Project Officer is responsible for liaising with relevant clinicians to complete the form if possible or practical. The Onsite Project Officer should assess if additional training is required in cases where non completion appears to be systematic e.g. linked to particular clinics or clinicians.
2.4	What do I do if a clinician refuses to fill out a form?	Please escalate this issue to the EY Jurisdictional Representative and your site Executive project sponsor to resolve. The Executive project sponsor may liaise with the clinician's head of department to resolve the issues.
2.5	What will I do if I lose the batch header?	Your Onsite Project Officer is able to re-print batch headers.
2.6	Can the collection form be printed in Black and White?	Yes, the form is still optical character recognition (OCR) compatible in Black & White, however to help clinicians focus on the key areas they need to complete on the form, it is recommended that the forms are printed in colour. The instructions for completing the forms also refer to the colour codes and their importance.
2.7	Can I enter a tick in the boxes?	Please use crosses ('X') rather than ticks (√), as crosses are more accurately read by the OCR scanning firm.
2.8	Where can I find instructions on filling out the forms?	All instructions on how to fill in the forms can be found in the project reference guide document titled "A Reference Guide for Hospitals participating in the National Non-admitted and Subacute admitted Costing Study". A copy of the reference guide is available from your Onsite Project Officer.
2.9	Can any colour pen or a pencil be used to complete the form?	Yes, any colour pen or a pencil (except for white) can be used to complete the form.
2.10	Will the forms be pre-populated with standard information for the ward such	On Site Project Officers will be provided with a macro that can be used to pre-populate forms based on ward information provided by the sites. This macro can also be used to generate batch headers. Some states are developing software to

#	Frequently asked question	Answer
	as ward name and code?	facilitate the pre-population process from local patient administration systems.
2.11	Can the forms be photocopied?	No. Form must not be photocopied - the OCR firm scanning machines cannot read photocopied forms. Forms have to be printed from a printer.
2.12	Will my patient label fit the form?	The OCR firm has confirmed that the forms can accommodate label sizes up to 120mm width x 45mm height - this includes the use of space around the patient label box without affecting required data field. The maximum label size we have received from participating sites so far is 99mm Width x 38.1mm height (from a site that has recently introduced a new bigger label), hence the forms should be ok. In the unlikely event that a site has a larger label size than 120mm width x 45mm height, we will design a specific solution for that site.
2.13	How do staff that are not located on the subacute ward to provide care get forms completed?	Staff who are not located on the subacute ward but provide care to admitted subacute patients will complete the form at the bed side when they provide the care to the patient.
2.14	Why is there is no place to write the date on the non-admitted forms?	The date will be entered on the batch header to be pre-printed by the Onsite Project Officer. The macros provided to the Onsite Project Officer to be used to generate the form can also pre-print the date on the forms of this information is entered prior to printing the forms.
2.15	What are the implications if forms are not completed correctly?	The form may be invalid and data contained on it could be excluded from the study.

3. Questions relating to definitions on the data capture form

#	Frequently asked question	Answer
3.1	What is meant by Carers?	We mean non-professional carers e.g. a patient being cared for at home by their friend or family rather than a patient being cared for by professional carers in an institution.
3.2	What do you mean by Indirect time	This is time spent on activities that can be directly related back to an individual patient that does not necessarily require the patient to be present or in direct contact with the clinician. Examples include, case conferences, care plans, family meetings, organising equipment / community / home support.
3.3	Which clinical professionals are classed as allied health?	For the purposes of this study, Allied Health clinicians are clinicians other than medical and nursing staff. Allied Health clinicians include Pharmacists, Psychologists, Physiotherapists, and Dieticians etc. Reference should be made to the Study Reference Guide for the complete listing.
3.4	What do you mean by Hospital Code?	This is the NHCDC facility code, NAAA e.g. '2RRH' for the Royal Rehabilitation Hospital in NSW, and '8ASH' for Alice Springs Hospital in NT.
3.5	What is specialling and how do record specialling time on the Subacute Admitted form?	Specialling occurs regularly within psychiatric services and refers to • the constant attendance of a professional staff member with a patient to protect the patient from self harming or harming others and to observe the patient's behaviour. The patient is accompanied in all activities by the staff member and is referred to as being specialled. Examples may occur in subacute care where specialling is required: • as a safety measure mitigating against patient falls or other forms of potential self harm or harm to others, or • due to the high personal care needs of the patient. Staff that provide care to only one person, whose needs are so great that the clinician is required at all times are to record their time in the category "specialling hours" contained in the top right hand corner of the data collection sheet. The total specialling hours provided to the patient for each shift should be recorded along with the category of staff providing the specialling (as per the categories listed on the form).

4. Questions relating to support

#	Frequently asked question	Answer
4.1	How many Onsite Project Officers are required?	The number of Onsite Project Officers required depends on a number of factors including the number of clinics, spread of clinic locations and participation in either or both elements of the study (non-admitted and subacute admitted services). The right number is the number required to make the study a success for you as agreed with the Independent Hospital Pricing Authority (IHPA). The IHPA has offered to fund the role for duration of time to be agreed between you and them.
4.2	What skills are required by the Onsite Project Officers?	It is recommended the Onsite Project Officer has local knowledge of the hospital's subacute and non-admitted services including clinic locations, number of clinic and types of clinics.
4.3	How do I get further information and support?	Clinicians should contact their Onsite Project Officers in the first instance who should be able to provide the information or support required.

#	Frequently asked question	Answer
		Onsite project officers should contact their EY Jurisdictional Officer as detailed in the project reference guide titled "A Reference Guide for Hospitals participating in the National Non-admitted and Subacute admitted Costing Study" if they have any questions or require support.
		Additional information on available support is detailed in the document titled 'Engagement Framework and Strategy for Hospitals participating in the National Non-admitted and Subacute admitted Costing Study'.
		Note that a different approach is in place for NSW sites.
4.4	Will we get any training on how to fill out these forms?	Training sessions and workshops have been, or will be, scheduled to ensure that staff participating in the site collections, Onsite Project Officers and Jurisdiction representatives fully understand what is expected during the study period including how to prepare, distribute, collate and what to do with the forms on completion.
		If you have not attended or require further training, please contact your Onsite Project Officer.
4.5	Will a toolkit be provided to assist sites?	Yes a standard tool kit will be provided to each site which includes:
		• These Frequently Asked Questions (FAQs)
		• Study Reference Guide
		• Engagement Framework and Strategy document
		• Campaign flyer about the study
		• Flyer on how to fill in the form
		• CEO memorandum template
		• 20 x document folders
		• 2 x Accordion folders
		• 10 boxes for mailing / courier pick up
		• Allied Health Reference Table
		• Top 20 Consumables Reference Table Template
		• Top 20 Prosthesis Reference Table Template
		• NHCDC Facility Code / Hospital Code Reference Table
		• Non-admitted Clinic Code Reference Table
		• Subacute Admitted Clinic /Ward Code Reference Table
		• Instructions for completing the non-admitted Services Form
		• Instructions for completing the subacute admitted Form
		• Dispatch labels for courier company
		• Instructions for arranging courier pickup

5. Questions relating to costs or financial data

#	Frequently asked question	Answer
5.1	Which average staff salary rates by staff category are required?	The average staff salary hourly rate for staff categories allocated to the outpatient or subacute admitted areas as per the staff categories on the collection forms.
5.2	What is the threshold or criteria for a high cost consumable or prosthesis?	As a general guide, high cost prosthesis and consumables are those with a unit cost of $50 or more, however this level can be adjusted locally to suit specific clinical or local requirements or preferences.
5.3	Which nurse types should be grouped together for the nurse labour costs?	The nursing labour costs to be provided should align to the broad headings on the data capture form.
		Secondly the broad headings cover the following categories of nursing staff:
		• Advanced Nurse (includes nurse practitioner, clinical nurse consultant, clinical nurse specialist)
		• NUM (nurse unit manager)
		• RN (registered nurse, Midwives)
		• EN (enrolled nurse)
		• Other (includes assistant in nursing)

6. Questions relating to form completion and time capture

#	Frequently asked question	Answer
6.1	How do you record numbers less than 10 on the forms e.g. High cost prostheses code 7, Allied Health Professional code 4 etc.?	The OCR scanning machine can read numbers less than 10 written with a zero in front or stand-alone e.g. '07' or '7', '04' or '4' etc.
6.2	How do I record specialling hours and staff category?	The total specialling hours provided to the patient for each shift should be recorded along with the category of staff providing the specialling (as per the categories listed on the form)
		An EN that provided 8 hours specialling care to a patient in the day shift will enter '8' in the box next to 'Day Shift' and write EN in the staff category column.

#	Frequently asked question	Answer
		A nursing assistant that provided 6 hours specialling care to a patient in the night shift will enter '6' in the box next to 'Night Shift' and write 'OT' for 'other Nursing Staff' in the staff category column.
		An Allied Health professional that provided 8 hours specialling care to a patient in the evening shift will enter '8' in the box next to 'Evening Shift' and write their code e.g. 4 for Orthotics as per the Allied Health Professional Reference Table in the staff category column.
6.3	Are we required to record wards people, clerks, porters and other non-clinical staff time such as time to assist lifting a patient onto a bed etc.?	No. Non clinician time related to the ward will get allocated as an average to all non-admitted patients.
6.4	How do we record medical and nursing student time?	Medical and Nursing student time are not required to be captured as part of this study.
6.5	Is the hospital code meant to be written on the individual form or is it for the batch headers?	The hospital code will be entered on the batch header to be pre-printed by the Onsite Project Officer.
		The macros provided to the Onsite Project Officer to be used to generate the form can also pre-print the hospital code on the forms of this information is entered prior to printing the forms.
6.6	Do I have to complete the Subacute Care Type on the subacute admitted form for the same patient daily?	You only need to complete the relevant Subacute Care Type on the subacute admitted form on the day of admission or start of the onsite data collection.
		If the Subacute Care Type changes during the duration of the onsite data collection, then the field should be completed at the time at which the care type changes.
6.7	How frequently do I complete the Outcome Measures on the subacute admitted form?	Complete the Outcome Measures for Rockwood Frailty, the Confusion Measure and the Mini Mental identified on the subacute admitted form on the day of assessment or admission to the subacute ward.
		There is no need to repeat this on subsequent days, except if another outcome measure is derived.
		The PCOC and AROC forms should be completed as per the national standards pertaining to these data collections.
6.8	If my MRN number is less than 11 digits, how do I enter this on the form?	Write you MRN number as per you site systems. Where you start writing your MRN number in the box does not matter e.g. from the first, second, third box, left to right or right to left etc. They just need to be within the 11 boxes provided and have no spaces.
6.9	Are drugs classed as consumables in this study - particularly in the area of mental health where drugs may be a high cost item?	No – A separate Pharmacy extract will be obtained allowing pharmacy items to be linked to the patient using the MRN.
6.10	Do we capture the time for phlebotomy staff during the study?	NO. Phlebotomy staff costs will be include the overhead costs allocation.
6.11	Do all patients who are on the ward on day one of the project need to have the supplementary assessments (Rockwood, CAM and MMSE) administered or only those who are ADMITTED across the course of the data collection period?	Yes we need the supplementary assessments done for patients who are on the ward on day one of the project.
		This may be a case of recording / entering the most recent supplementary assessment completed during that episode or performing the supplementary assessments at soon as practicably possible for those patients.
6.12	How do we correct errors on the forms? We are finding that many forms are being fixed with liquid paper. There appears to be confusion as to whether this is permissible or not.	The OCR company can confirmed the following regarding the use of liquid paper and scribbling out / cancelling entries on the collection forms:
		It is ok to use liquid paper or correction tape to correct errors on both the non-admitted and subacute admitted forms.
		It is ok to scribble out / cancel out an 'X' in a box on both the non-admitted and subacute admitted forms if entered in error.
		It is ok to scribble out / cancel out written numbers on both the non-admitted and subacute admitted forms. The correct entry, if applicable, should be made next to the scribbled out entry, even if the new entry goes outside the form field box - the OCR machine can still read this.

Appendix EE   Project Reference Guide

The Non-admitted and Subacute Costing Study Project Reference Guide is available on IHPA's website
www.ihpa.gov.au

Appendix FF   Engagement Framework

The Non-admitted and Subacute Costing Study Engagement Framework is available on IHPA's website www.ihpa.gov.au

Appendix GG AROC Impairment Codes and Data Collection Form

Facility

Establishment ID _____
Establishment Name _____
Ward ID _____
Ward Name _____

Assessment Only: □ Yes   □ No

Care Type:
□ Rehabilitation Care
□ GEM

Demographics

Surname _____
Given name _____

MRN _____
Date of Birth ____/____/____ □ tick if estimate
(DD/ MM/ YYYY)

Sex
□ Female   □ Indeterminate
□ Male   □ Not stated

Indigenous Status
□ Aboriginal, but not Torres Strait Islander origin
□ Torres Strait Islander, but not Aboriginal origin
□ Both Aboriginal and Torres Strait Islander origin
□ Neither Aboriginal and Torres Strait Islander origin
□ Not stated or inadequately defined

Geographical residence
□ NSW   □ TAS
□ VIC   □ NT
□ QLD   □ ACT
□ SA   □ Other Australian Territory
□ WA   □ Not Australian

Postcode (4 digits) _____

Funding Source for Hospital Patient
□ Australian Health Care Agreement (public patient)
□ Private Health Insurance
□ Self- Funded
□ Workers Compensation
□ Motor Vehicle 3rd Party Personal Claim
□ Other Compensation (public liability, common law, medical negligence)
□ Department of Veteran's Affairs
□ Department of Defence
□ Correctional Facility
□ Other hospital or public authority (contracted care)
□ Reciprocal Health Care Agreement (other countries)
□ Other
□ Not Known

Health Fund/Compulsory Third Party/Workers Compensation Code _____
See appendix 2 for list of codes)
(Leave blank for public patients)

Need for Interpreter
□ Interpreter needed
□ Interpreter not needed

Episode Start

Referral Date ____/____/____

Assessment date ____/____/____

Date clinically ready for rehab care ____/____/____

Was there a delay in episode start? □ Yes □ No
If Yes, indicate reason(s) for delay
□ 1 - Patient related issues (medical)
□ 2 - Service issues
□ 3 - External support issues
□ 4 - Equipment issues
□ 5 - Behavioural issues
□

Episode start date ____/____/____

Accommodation prior to this impairment
□ 1 - Private Residence (including unit in retirement village)- IF so, enter carer status below
□ 2 - Residential, low level care (hostel)
□ 3 - Residential, high level care (nursing home)
□ 4 - Community Group home
□ 5- Boarding House
□ 6 - Transitional living unit
□ 7 - Other

Carer status prior to this impairment (ONLY COMPLETE if ticked Private Residence above, otherwise leave blank)
□ 1 - No carer and does not need one
□ 2 - No carer and needs one
□ 3 - Carer not living in
□ 4 - Carer living in, not co-dependent
□ 5 - Carer living in, co-dependent

Were any services being received within the month prior to this impairment? (ONLY COMPLETE if ticked Private Residence above, otherwise leave blank)
□ Yes □ No

If YES, Please tick ALL services that were being received
□ 1 -Domestic Assistance   □ 6-Meals
□ 2 -Social support   □ 7-Provision of goods & equip
□ 3 -Nursing care   □ 8 -Transport services
□ 4-Allied health care   □ 9-Case management
□ 5-Personal care

Employment status prior to this impairment
□ 1 -Employed   □ 4-Not in labour force
□ 2-Unemployed   □ 5-Retired for age
□ 3-Student   □ 6-Retired for disability

Is this the first direct care rehabilitation episode for this impairment?
□ Yes   □ No

Date multi-disciplinary team rehab plan established
____/____/____

Date of injury/ impairment onset
____/____/____

If exact date of injury/impairment is unknown, please indicate the time since onset or time since acute exacerbation of a chronic condition from the list below:
□ Less than one month
□ 1 month to less than 3 months
□ 3 months to less than 6 months
□ 6 months to less than a year
□ 1 year to less than 2 years
□ 2 years to less than 5 years   □ Unknown
□ 5 or more years

AROC v4 AUSTRALIA DATA COLLECTION FORM
FOR DIRECT IN-PATIENT CARE (Pathway 3)

Episode Start

Date of relevant acute episode _____/_____/_____
(ONLY COMPLETE if the current rehabilitation episode was preceded by an episode of acute care, in the previous 3 months, which was relevant to the current rehabilitation episode)

Mode of EPISODE START

☐ 1-Admitted from usual accommodation
☐ 2-Admitted from other than usual accommodation
☐ 3-Transferred from another hospital
☐ 4-Transferred from acute care in another ward
☐ 5-Transferred from acute specialist unit
☐ 6-Change from acute care to sub/non acute care whilst remaining on same ward
☐ 7-Change of sub/non acute care type
☐ 8-Other:

Date episode start FIM assessed _____/_____/_____
(see below in FIM Table)

Episode Start

AROC impairment code number and name _____

_____
[Eg. 5.11 - Amputation of limb not resulting from trauma – single upper – Above Elbow)
(See appendix A for list of impairment codes)
If impairment code is 2.22, 4, 5 or 16, please complete the appropriate impairment specific data items at the end of the form before submitting your data. For any other impairment, you can leave the impairment specific data item section blank.

Frailty- pre-morbid (score for patient 65 years or older)
☐ 1-Very fit   ☐ 6-Moderately frail
☐ 2-Well   ☐ 7-Severely frail
☐ 3-Well, with co morbid disease   ☐ 8-Terminally ill
☐ 4-Apparently vulnerable   ☐ 9-Unknown or not
☐ 5-Mildly frail   applicable

Was the patient able to participate in therapy from day 1?
☐ Yes   ☐ No
Has the patient fallen in the last 12 months?
☐ Yes   ☐ No

Has the patient lost more than 10% of their body weight in the last 12 months?
☐ Yes   ☐ No

FIM
(Admission and Discharge FIM Scores)

Date completed	Date Episode start FIM Assessed _____/_____/_____	Date Episode End FIM assessed _____/_____/_____
Eating		
Grooming		
Bathing		
Dressing upper body		
Dressing lower body		
Toileting		
Bladder management		
Bowel management		
Transfer to bed/chair		
Transfer to toilet		
Transfer shower/bath		
Locomotion		
Stairs		
Comprehension		
Expression		
Social interaction		
Problem solving		
Memory		

Episode End

Employment status, or anticipated employment status, after discharge
(Complete only if employment status prior was employed)
- ☐ 1-Same or similar job, same or similar hours
- ☐ 2-Same or similar job, reduced hours
- ☐ 3-Different job by choice
- ☐ 4-Different job due to reduced function
- ☐ 5-Not able to work
- ☐ 6-Chosen to retire
- ☐ 7-Too early to determine

Date episode end FIM assessed _____/_____/_____
(See FIM Table on previous page)

Date clinically ready for discharge _____/_____/_____

Was there a delay in discharge?   ☐ Yes   ☐ No
If Yes, indicate reason(s) for delay
- ☐ 1-Patient related issues (medical)
- ☐ 2-Service issues
- ☐ 3-External support issues
- ☐ 4-Equipment issues
- ☐ 5-Patient behavioural issues

Is there an existing comorbidity interfering with the Rehab/GEM episode?
☐ Yes   ☐ No

If YES, please select up to 4 comorbidities from the list below
- ☐ Brain Injury
- ☐ Cancer
- ☐ Cardiac disease
- ☐ Chronic Pain
- ☐ Delirium, pre-existing
- ☐ Dementia
- ☐ Diabetes mellitus
- ☐ Drug and alcohol abuse
- ☐ Epilepsy
- ☐ Hearing impairment
- ☐ Inflammatory arthritis
- ☐ Mental health problem
- ☐ Other
- ☐ Morbid obesity
- ☐ Multiple Sclerosis
- ☐ Osteoarthritis
- ☐ Osteoporosis
- ☐ Parkinson's Disease
- ☐ Pressure ulcer (pre-existing)
- ☐ Renal failure NO dialysis
- ☐ Renal failure with dialysis
- ☐ Respiratory disease
- ☐ Spinal cord injury/disease
- ☐ Stroke
- ☐ Visual Impairment

Is there an existing complication interfering with this episode?
☐ Yes   ☐ No

If YES, please select up to 4 complications from the list below
- ☐ Chest infection
- ☐ Delirium
- ☐ DVT/PE
- ☐ Faecal impaction
- ☐ Fall
- ☐ Fracture
- ☐ Incontinence faecal
- ☐ Incontinence urinary
- ☐ Pressure ulcer
- ☐ Significant electrolyte imbalance
- ☐ UTI
- ☐ Wound infection
- ☐ Other

Episode end date _____/_____/_____
(When patient is discharged, click "Refresh pre – populated" button in QoCR to bring discharge date across from TOPAS/WEBPAS)

Mode of episode end
- ☐ 1-Discharged to final destination – IF so, enter details of final destination below
- ☐ 2-Discharged to interim destination- IF so, enter interim destination and final destination below
- ☐ 3-Death
- ☐ 4-Discharged/ transferred to other hospital
- ☐ 5-Changed from sub/non acute care to acute care and transferred to a different ward
- ☐ 6-Change from sub/non acute care to acute care and remained on the same ward
- ☐ 7-Change of care type within sub/non acute care
- ☐ 8-Discharged at own risk
- ☐ 9-Other and unspecified

Interim destination (ONLY complete if patient discharged to interim destination at episode end)

- ☐ 1-Private residence (including unit in retirement village)
- ☐ 2-Residential, low level care (hostel)
- ☐ 3-Residential, high level care (nursing home)
- ☐ 4-Community Group home
- ☐ 5-Boarding House
- ☐ 6-Transitional Care
- ☐ 7-Hospital
- ☐ 8-Other
- ☐ 9-Unknown

Final destination (ONLY complete if patient discharged to final or interim destination at episode end)
- ☐ 1-Private residence (including unit in retirement village) - IF so, enter carer status on next page
- ☐ 2-Residential, low level care (hostel)
- ☐ 3-Residential, high level care (nursing home)
- ☐ 4-Community Group home
- ☐ 5-Boarding House
- ☐ 6-Transitional living unit
- ☐ 7-Hospital
- ☐ 8-Other
- ☐ 9-Unknown

Carer status post discharge- (ONLY complete if final destination at episode end was Private Residence, otherwise leave blank)
- ☐ 1-No carer and does not need one
- ☐ 2-No carer and needs one
- ☐ 3-Carer not living in
- ☐ 4-Carer living in, not co-dependent
- ☐ 5-Carer living in, co-dependent

Total number of leave days   _____

Total number of suspension days   _____

Total number of suspension occurrences   _____

Will any services be received post discharge?
☐ Yes   ☐ No

If YES, please tick ALL services that will be received
- ☐ 1-Domestic Assistance
- ☐ 2-Social support
- ☐ 3-Nursing care
- ☐ 4-Allied health care
- ☐ 5-Personal care
- ☐ 6-Meals
- ☐ 7-Provision of goods & equip
- ☐ 8-Transport services
- ☐ 9-Case management

Will the discharge plan be available to the patient prior to discharge?
☐ Yes   ☐ No

General Comments:

Impairment Specific Data Items
Complete data items relevant to patient's impairment ONLY

Brain Dysfunction – Complete for impairment code 2.22 (traumatic, closed injury)

Date patient emerged from PTA   ____/____/_____

Is the patient a chronic amnesic?   ☐ Yes   ☐ No

Spinal Cord (SC) Dysfunction - Complete for impairment codes 4.111, 4.112, 4.1211, 4.1212, 4.1221, 4.1222, 4.13 (non traumatic) 4.211, 4.212, 4.2211, 4.2212, 4.2221, 4.2222, 4.23 (traumatic)

ASIA score (AIS grade) at EPISODE START
☐ A   ☐ B   ☐ C   ☐ D

Level of SC injury at EPISODE START

☐ C1	☐ T1	☐ S1	☐ L1
☐ C2	☐ T2	☐ S2	☐ L2
☐ C3	☐ T3	☐ S3	☐ L3
☐ C4	☐ T4	☐ S4	☐ L4
☐ C5	☐ T5	☐ S5	☐ L5
☐ C6	☐ T6		
☐ C7	☐ T7		
☐ C8	☐ T8		
	☐ T9		
	☐ T10		
	☐ T11		

Level of SC injury at EPISODE END

☐ C1	☐ T1	☐ S1	☐ L1
☐ C2	☐ T2	☐ S2	☐ L2
☐ C3	☐ T3	☐ S3	☐ L3
☐ C4	☐ T4	☐ S4	☐ L4
☐ C5	☐ T5	☐ S5	☐ L5
☐ C6	☐ T6		
☐ C7	☐ T7		
☐ C8	☐ T8		
	☐ T9		
	☐ T10		
	☐ T11		
	☐ T12		

Ventilator dependent at EPISODE END?
☐ Yes   ☐ No

EPISODE END ASIA Score (AIS grade)
☐ A   ☐ B   ☐ C   ☐ D

Amputation of Limb - Complete for impairment codes 5.11, 5.12, 5.13, 5.14, 5.15, 5.16, 5.17, 5.18, 5.19 (non traumatic) 5.21, 5.22, 5.23, 5.24, 5.25, 5.26, 5.27, 5.28, 5.29 (traumatic)

Date ready for casting   ____/____/____

Phase of amputee care at EPISODE START
(See Appendix C for explanation of phases of amputee care)
☐ 1-Pre-operative   ☐ 4-Prosthetic
☐ 2-Delayed wound   ☐ 5-Follow-up
☐ 3-Pre prosthetic

Did the patient pass through the following phases of care DURING their rehabilitation episode?
(See Appendix C for explanation of phases of amputee care)
☐ 1-Delayed wound?
☐ 2-Pre prosthetic?
☐ 3-Prosthetic?

Phase of amputee care at EPISODE END
(See Appendix C for explanation of phases of amputee care)
☐ 1-Pre-operative   ☐ 4-Prosthetic
☐ 2-Delayed wound   ☐ 5-Follow-up
☐ 3-Pre prosthetic

Does the patient have a prosthetic device fitted, OR will have one fitted in the future?   ☐ Yes   ☐ No

Date of first prosthetic fitting   ____/____/_____

Reason for delay in first fitting
☐ 0-No delay
☐ 1-Issues around wound healing
☐ 2-Other issues around the stump
☐ 3-Other health issues of the patient
☐ 4-Issues around availability of componentry
☐ 5-Issues around availability of the service
☐ 6-Other issues _____

Outcome measurer at DISCHARGE (*if outcome measure is not applicable or not appropriate for episode of care, record 999*)

1. Timed up and go

Record time, minutes & seconds to 1 decimal place

____.____
(xx.x)

2. 6 Minute walk
Record metres to 1 decimal place

_____.____
(xxx.x)

3. 10 Metre walk+/- an aid
Record time, minutes & seconds to 1 decimal place

_____.____
(xx.x)

Rehabilitation Impairment Code ____ ____~____ ____ ____ ____

Code using the AROC Impairment Codes, the impairment which, at the beginning of the episode, is identified to be the major focus of rehabilitation and the primary subject of the rehabilitation plan. Use Code Allocation Guidelines if unsure

Stroke	Amputation of Limb	Cardiac	Other Disabling Impairments
Haemorrhagic	**Not resulting from trauma**	09.1 Following recent onset	13.1 Lymphoedema
1.11 Left body involvement	5.11 Single Upper - - Above Elbow	of new cardiac impairment	13.3 Conversion disorder
1.12 Right body involvement	5.12 Single Upper Below Elbow		13.9 Other disabling impairments
1.13 Bilateral involvement	5.13 Single Lower - Above Knee (includes	09.2 Chronic cardiac	that cannot be classified into a
1.14 No paresis	through knee)	insufficiency	specific group
1.19 Other Stroke	5.14 Single Lower - Below Knee		
	5.15 Double Lower - Above Knee (includes	09.3 Heart and heart/lung	
Ischaemic	through knee)	transplant	
1.21 Left body involvement (right brain)	5.16 Double Lower – Above/below Knee		
1.22 Right body involvement (left brain)	5.17 Double Lower – Below Knee		
1.23 Bilateral involvement	5.18 Partial Foot - (single or double)		
1.24 No paresis	5.19 Other amputation		
1.29 Other stroke			
	Resulting from trauma		
	5.21 Single Upper - - Above Elbow		
	5.22 Single Upper Below Elbow		
	5.23 Single Lower - Above Knee (includes		
	through knee)		
	5.24 Single Lower - Below Knee		
	5.25 Double Lower - Above Knee (includes		
	through knee)		
	5.26 Double Lower – Above/below Knee		
	5.27 Double Lower – Below Knee		
	5.28 Partial Foot - (single or double)		
	5.29 Other amputation		
Brain Dysfunction	**Arthritis**	**Pulmonary**	**Major Multiple Trauma**
Non-traumatic	06.1 Rheumatoid Arthritis	10.1 Chronic Obstructive	14.1 Brain+Spinal cord injury
02.11 Sub-arachnoid haemorrhage	06.2 Osteoarthritis	Pulmonary disease	14.2 Brain+ Multiple
02.12 Anoxic brain damage	06.9 Other Arthritis	10.2 Lung transplant	fracture/amputation
02.13 Other non-traumatic brain dysfunction		10.9 Other Pulmonary	14.3 Spinal Cord+Multi
			fracture/amputation
Traumatic			14.9 Other multiple trauma
02.21 Open injury			
02.22 Closed injury			
Neurological Conditions	**Pain Syndromes**	**Burns**	**Developmental Disabilities**
03.1 Multiple Sclerosis	07.1 Neck pain	11 Burns	15.1 Developmental Disabilities
03.2 Parkinsonism	07.2 Back Pain		(excludes cerebral palsy)
03.3 Polyneuropathy	07.3 Extremity pain		
03.4 Guillian-Barre	07.4 Headache (includes migraine)		
03.5 Cerebral Palsy	07.5 Multi-site pain		
03.8 Neuromuscular Disorders	07.9 Other pain (includes abdo/chest		
03.9 Other Neurological	wall)		
Spinal Cord (SC) Dysfunction	**Orthopaedic Conditions**	**Congenital Deformities**	**Re-Conditioning/Restorative**
Non traumatic SC dysfunction	**Fractures (includes dislocation)**	12.1 Spina Bifida	16.1 Re-conditioning following
04.111 Paraplegia, incomplete	08.111 Fracture of hip, unilateral (incl	12.9 Other Congenital	surgery
04.112 Paraplegia, complete	#NOF)		
04.1211 Quadriplegia, incomplete C1-4	08.112 Fracture of hip, bilateral (incl.		16.2 Reconditioning following
04.1212 Quadriplegia, incomplete C5-8	#NOF)		medical illness
04.1221 Quadriplegia, complete C1-4	08.12 Fracture of shaft of femur		
04.1222 Quadriplegia, complete C5-8	08.13 Fracture of pelvis		16.3 Cancer rehabilitation
04.13 Other non- traumatic SC dysfunction	08.141 Fracture of knee		
	08.142 Fracture of lower leg, ankle, foot		
Traumatic Spinal Cord Dysfunction	08.15 Fracture of upper limb		
04.211 Paraplegia, incomplete	08.16 Fracture of spine		
04.212 Paraplegia, complete	08.17 Fracture of multiple sites		
04.2211 Quadriplegia, incomplete C1-4	08.19 Other orthopaedic fracture		
04.2212 Quadriplegia, incomplete C5-8			
04.2221 Quadriplegia, complete C1-4	**Post Orthopaedic Surgery**		
04.2222 Quadriplegia, complete C5-8	08.211 Unilateral hip replacement		
04.23 Other traumatic SC dysfunction	08.212 Bilateral hip replacement		
	08.221 Unilateral knee replacement		
	08.222 Bilateral knee replacement		
	08.231 Knee and hip replacement, same		
	side		
	08.232 Knee and hip replacement, diff		
	sides		
	08.24 Shoulder replacement		
	08.25 Post spinal surgery		
	08.26 Other orthopaedic surgery		
	Soft tissue injury		
	08.3 Soft tissue injury		

Appendix HH   Data Dictionary

COSTCENTRE<Hospital Name><2012-13 FULL YEAR> e.g. CCWWH01_07_12-31_06_13	

Data Dictionary

Column	Data item	Type & size	Valid values / Notes	Edit Rules
A	Enitity	A(20)	Entity identifier such as Area Health Service of LHN	Not mandatory – jurisdiction or site specific
B	Hospital/Campus Code	A(20)	Can align to study assigned unique hospital identifier.	Critical error if blank or not unique
C	Reporting Period Commencement Date	Date DD/MM/YYY	DD/MM/YYYY used to identify the beginning of the financial period being reported	Critical error if blank or not number dd/mm/yyyy format
D	Reporting Period Completion Date	Date DD/MM/YYY	DD/MM/YYYY used to identify the last day of the financial period being reported	Critical error if blank or not number dd/mm/yyyy format
E	Program	A(11)	Progam alignment of cost centre	Crirical error if blank
F	Type		Overhead, Intermediate, Direct	Definition from National Hospital Costing Standards version 2 apply
G	Account Code	A(11)	Unique site specific account code	Critical error if blank
H	Cost Centre Number	N(8)	Unique site specific cost centre number	Critical error if blank
I	Cost Centre Name	N(20)	Unique site specific cost centre name	Critical error if blank
J	Cost Centre Mapping	N(20)	GL mapping - jursidiction defined	Not mandatory – jurisdiction or site specific
K	Cost Centre Line Item - Medical Salaries and Wages Costs	N(20)	YTD expenditure on medical salaries and wages within cost centre	Critical error if blank
L	Cost Centre Line Item -Nurse Salaries and Wages Costs	N(20)	YTD expenditure on nursing salaries and wages within cost centre	Critical error if blank
M	Cost Centre Line Item -Allied Health Salaries and Wages Costs	N(20)	YTD expenditure on allied health salaries and wages within cost centre	Critical error if blank
N	Cost Centre Line Item -Non-Clinical Salaries and Wages Costs	N(20)	YTD expenditure on non-clinical salaries and wages within cost centre	Critical error if blank
O	Cost Centre Line Item -Oncosts		YTD expenditure on salaries and wages oncosts within cost centre	Critical error if blank
P	Cost Centre Line Item -Goods and Services costs		YTD expenditure on goods and services costs within cost centre	Critical error if blank
Q	Cost Centre Line Item - Depreciation		YTD expenditure on depreciation within cost centre	Critical error if blank
R	Cost Centre Line Item -Medical Surgical Supply Costs	N(20)	YTD expenditure on medical surgical supply costs within cost centre	Critical error if blank
S	Cost Centre Line Item -Prosthetic Costs	N(20)	YTD expenditure on prosthetic costs within centre	Critical error if blank
T	Cost Centre Line Item -Imaging Costs	N(20)	YTD expenditure on imaging within cost centre	Critical error if blank
U	Cost Centre Line Item -Pharmacy Costs	N(20)	YTD expenditure on pharmacy within cost centre	Critical error if blank
V	Cost Centre Line Item -Pathology Costs	N(20)	YTD expenditure on pathology within cost centre	Critical error if blank
X	Cost Centre Line Item -Hotel Costs	N(20)	YTD expenditure on hotel services within cost centre	Critical error if blank
Y	Cost Centre Line Item -Catering Costs	N(20)	YTD expenditure on catering within cost centre	Critical error if blank
Z	Cost Centre Line Item -Corporate Costs	N(20)	YTD expenditure on corporate services within cost centre	Critical error if blank
U	Cost Centre Line Item -Other Costs	N(20)	YTD expenditure on other costs within cost centre	Critical error if blank

Appendix II   Data extract summary by Participant

Legend" Green -file received, Yellow –combined file received, Grey- Not available, Red or white – Not received

Data request	Flinders July	August	Sept	Oct	Hamstead July	August	Sept	Oct	Lyell McEwin July	August	Sept	Oct	Modbury July	August	Sept	Oct
Data Extracts																
Outpatient booking system	OP_5FLI_0107_3107	OP_METRO_0108_3108	OP_METRO_0109_3109.	NA	OP_5HRC_0107_3107	OP_METRO_0108_3108	OP_METRO_0109_3109.	NA	OP_5LMH_0107_3107	OP_METRO_0108_3108	OP_METRO_0109_3109.	OP_METRO_0110_3110.	OP_5MOD_0107_3107	OP_METRO_0108_3108	OP_METRO_0109_3109.	OP_METRO_0110_3110.
Medical Imaging	RIS_5FLI_0107_3107	RIS_5FLI_0108_3108	RIS_5FLI_0109_3009.x	RIS_5FLI_0110_3110.xls	RIS_5RAH_0107_3108	RIS_5RAH_0107_3009.x	RIS_5RAH_0107_3110.x		RIS_5LMH_0107_3107	RIS_5LMH_0108_3108	RIS_5LMH_0109_3009.x	RIS_5LMH_0110_3110.x	RIS_5MOD_0107_3107	RIS_5MOD_0108_3108	RIS_5MOD_0109_3009.x	RIS_5MOD_0110_3110.x
Pathology	LIS_5FLI_0107_2407	IS_5FLI_5REP_0108_230	LIS_5FLI_5REP_0109_2	LIS_5FLI_5REP_2409_24	LIS_5RAH_0107_2308		LIS_5RAH_0107_2309.x	LIS_5RAH_0107_3110.x	LIS_5LMH_0107_3107	LIS_5LMH_0108_3108	LIS_5LMH_0109_3009.x	LIS_5LMH_0110_3110.x	LIS_5MOD_0107_3107	LIS_5MOD_0108_3108	LIS_5MOD_0109_3009.x	LIS_5MOD_0110_3110.x
Pharmacy	PHARM_5FLI_0107_310	PHARM_ALL_SA_0108_	PHARM_ALL_SA_0107_	PHARM_ALL_SA_0110_	PHARM_5RAH_0107_310	PHARM_ALL_SA_0108_	PHARM_ALL_SA_0107_	PHARM_ALL_SA_0110	PHARM_5LMH_0107_31	PHARM_ALL_SA_0108_	PHARM_ALL_SA_0107_	PHARM_ALL_SA_0110_	PHARM_5MOD_0107_31	PHARM_5MOD_0108_31	PHARM_5MOD_0109_30	PHARM_ALL_SA_0110_
Allied Health System	AH_5FLI_0107_3107	AH_5FLI_0108_3108	AH_5FLI_0108_3009.xls	NA	AHP_5HRC_2207_3107	AH_5HRC_NA_0108_3108 / AH_5HRC_SA_0108_3108	AHP_5HRC_0109_2709 / AH_5HRC_NA_0109_2709.xls	NA	AH_5LMH_0108_3108 / AH_5LMH_0109_3009.x	AH_5LMH_0108_3108 / AH_5LMH_0110_3110.x			AH_5MOD_0107_3108 / AH_5MOD_0107_3009.x	AH_5MOD_0107_3108 / AH_5MOD_0107_3110.x		
Patient Administration Systems	PAS_ALL_ZIP		PAS_ALL_0107_3109.zi	NA	PAS_ALL_ZIP		PAS_ALL_0107_3109.zi	NA	PAS_ALL_ZIP		PAS_ALL_0107_3109.zi	PAS_ALL_0110_3110.zi	PAS_ALL_ZIP		PAS_ALL_0107_3109.zi	PAS_ALL_0110_3110.zi
Coded Diagnosis	Received	Received	Received	NA	Received	Received	Received	NA	Received	Received	Received	NA	Received	Received	Received	NA
Coded Procedure	Received	Received	Received	NA	Received	Received	Received	NA	Received	Received	Received	NA	Received	Received	Received	NA
Emergency non admitted	ED_5FLI_0107_3107	ED_ALL_0108_3108	ED_ALL_0109_3109.xls:	NA	NA	NA	NA	NA	ED_5LMH_0107_3107	ED_ALL_0108_3108	ED_ALL_0109_3109.xls:	ED_ALL_0110_3110.xls:	ED_5MOD_0107_3107	ED_ALL_0108_3108	ED_ALL_0109_3109.xls:	ED_ALL_0110_3110.xls:
Outreach	Included with outpatients	Included with outpatients	Included with outpatients	NA	Included with outpatients	Included with outpatients	Included with outpatients	NA	Included with outpatients	Included with outpatients	Included with outpatients	Included with outpatients	Included with outpatients	Included with outpatients	Included with outpatients	Included with outpatients
							AH_5HRC_SA_0109_2709.xls									
Costing Data																
Cost Data	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cost Centre / GL	GL_ALL_SA_2012_13 / SA hospital hourly rates		GL_FTE_ALL_010713_3	NA	GL_ALL_SA_2012_13/SA hospital hourly rates		GL_FTE_ALL_010713_3	NA	GL_ALL_SA_2012_13 /SA hospital hourly rates		GL_FTE_ALL_010713_3	GL_FTE_ALL_010713_3	GL_ALL_SA_2012_13 / SA hospital hourly rates		GL_FTE_ALL_010713_3	GL_FTE_ALL_010713_3
Allocation statistics	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	NA	NA	NA	NA	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_
Oncost	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL
Lookup tables																
Radiology lookup	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract
Laboratory lookup	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract
Pharmacy lookup	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract
Standard unit input costs lookup	Received	Received	Received	Received	Received	Received	Received	Received	Received	Received	Received	Received	Received	Received	Received	Received
							NURSE_5HRC_0107_3009.xlsx									

Data request	Mt Gambier July	August	Sept	Oct	Queen Elizabeth July	August	Sept	Oct	Repatriation July	August	Sept	Oct	RAH July	August	Sept	Oct
Data Extracts																
Outpatient booking system	OP_5MTG_0107_3107	OP_5MTG_5PTL_5WHY	OP_5MTG_5PTL_5WHY	OP_5MTG_5PTL_5WHY	OP_5TQE_0107_3107	OP_METRO_0108_3108	OP_METRO_0109_3109.	NA	OP_5REP_0107_3107	OP_METRO_0108_3108	OP_METRO_0109_3109.	NA	OP_5RAH_0107_3107	OP_METRO_0108_3108	OP_METRO_0109_3109.	NA
Medical Imaging	RIS_5MTG_0107_3107	RIS_5MTG_0108_3108	RIS_5MTG_0109_3009.x	RIS_5MTG_0110_31	RIS_5TQE_0107_3108		RIS_5TQE_0107_3009.x	RIS_5TQE_0107_3110.x	RIS_5REP_0107_3107	RIS_5REP_0107_3110.x	RIS_5REP_0110_3110.x		RIS_5RAH_0107_3108	RIS_5RAH_0107_3009.x	RIS_5RAH_0107_3110.x	
Pathology	LIS_5MTG_0107_3107	LIS_5MTG_0108_3108	LIS_5PLT_5MTG_5WHY	LIS_5PLT_5MTG_5WHY	LIS_5TQE_0107_2708		LIS_5TQE_0107_2709.xl	LIS_5TQE_0107_3110.xl	LIS_5REP_0107_2407	IS_5FLI_5REP_0108_230	IS_5FLI_5REP_0109_2	LIS_5FLI_5REP_2409_24	LIS_5RAH_0107_2308		LIS_5RAH_0107_2309.x	LIS_5RAH_0107_3110.x
Pharmacy	PHARM_5MTG_0107_31	PHARM_ALL_SA_0108_	PHARM_ALL_SA_0107_	PHARM_ALL_SA_0110_	PHARM_5TQE_0107_31	PHARM_ALL_SA_0108_	PHARM_ALL_SA_0107_	PHARM_ALL_SA_0110	PHARM_5REP_0107_31(	PHARM_ALL_SA_0108_	PHARM_ALL_SA_0107_	PHARM_ALL_SA_0110_	PHARM_5RAH_0107_31	PHARM_ALL_SA_0108_	PHARM_ALL_SA_0107_	PHARM_ALL_SA_0110_
Allied Health System	AH_5MTG_5PTL_5WHY_0107_31_08	G_5PTL_5WHY_0109_3	AH_5MTG_5PTL_5WHY		AHP_5TQE_2207_3107	AH_5TQE_0108_3108 / AH_5TQE_0109_2709.xl		NA	AH_5REP_0107_3107	AH_5REP_0108_3108 / AH_5REP_0107_3108.xl		NA	AHP_5RAH_2207_3107	AH_5RAH_0108_3108 / AH_5RAH_0109_2709.x		NA
Patient Administration Systems	PAS_ALL_ZIP		PAS_ALL_0107_3109.zi	PAS_ALL_0110_3110.zi	PAS_ALL_ZIP		PAS_ALL_0107_3109.zi	NA	PAS_ALL_ZIP		PAS_ALL_0107_3109.zi	NA	PAS_ALL_ZIP	PAS_ALL_ZIP		NA
Coded Diagnosis	Received	Received	Received	NA	Received	Received	Received	NA	Received	Received	Received	NA	Received	Received	Received	NA
Coded Procedure	Received	Received	Received	NA	Received	Received	Received	NA	Received	Received	Received	NA	Received	Received	Received	NA
Emergency non admitted	ED_5MTG_0107_3107	ED_ALL_0108_3108	ED_ALL_0109_3109.xls:	ED_ALL_0110_3110.xls:	ED_5TQE_0107_3107	ED_ALL_0108_3108	ED_ALL_0109_3109.xls:	NA	ED_5RAH_0107_3107	ED_ALL_0108_3108	ED_ALL_0109_3109.xls:	NA				NA
Outreach	Included with outpatients	Included with outpatients	Included with outpatients	Included with outpatients	Included with outpatients	Included with outpatients	Included with outpatients	NA	Included with outpatients	Included with outpatients	Included with outpatients	NA	Included with outpatients	Included with outpatients	Included with outpatients	NA
Costing Data																
Cost Data	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cost Centre / GL	GL_ALL_SA_2012_13		GL_FTE_ALL_010713_3	GL_FTE_ALL_010713_3	GL_ALL_SA_2012_13		GL_FTE_ALL_010713_3	NA	GL_ALL_SA_2012_13		GL_FTE_ALL_010713_3	NA	GL_ALL_SA_2012_13		GL_FTE_ALL_010713_3	NA
Allocation statistics	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_
Oncost	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL	included with GL
Lookup tables																
Radiology lookup	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract
Laboratory lookup	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract
Pharmacy lookup	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract
Standard unit input costs lookup	Received	Received	Received	Received	Received	Received	Received	Received	Received	Received	Received	Received	Received	Received	Received	Received

Port Lincoln / Whyalla / Womens and Childrens

Data request	Port Lincoln July	August	Sept	Oct	Whyalla July	August	Sept	Oct	Womens and Childrens July	August	Sept	Oct
Data Extracts												
Outpatient booking system	OP_5PTL_0107_3107	OP_5MTG_5PTL_5WHY	OP_5MTG_5PTL_5WHY	OP_5MTG_5PTL_5WHY	OP_5WHY_0107_3107	OP_5MTG_5PTL_5WHY	OP_5MTG_5PTL_5WHY	OP_5MTG_5PTL_5WHY	OP_5WCH_0107_3107	OP_METRO_0108_3108	OP_METRO_0109_3109.	OP_METRO_0110_3110.
Medical Imaging	RIS_5PTL_0107_3108		RIS_5PTL_0109_3009.xl	RIS_5PTL_0110_3110.xl	RIS_5WHY_0107_3108		RIS_5WHY_0109_3009.	RIS_5WHY_0110_3110.	RIS_5WCH_0107_3108		NA	
Pathology	LIS_5PTL_0107_3107	LIS_5PTL_0108_3108	LIS_5PLT_5MTG_5WHY	LIS_5PLT_5MTG_5WHY	LIS_5WHY_0107_3107	LIS_5WHY_0108_3108	LIS_5PLT_5MTG_5WHY	LIS_5PLT_5MTG_5WHY	LIS_5WCH_0107_3107	LIS_5WCH_0108_3108	LIS_5WCH_0207_3009.x	LIS_5WCH_0110_3110.x
Pharmacy	NA	NA	NA	NA	PHARM_5WHY_0107_3'	PHARM_ALL_SA_0108_	PHARM_ALL_SA_0107_	PHARM_ALL_SA_0110_	PHARM_5WCH_0107_31	PHARM_ALL_SA_0108_	PHARM_ALL_SA_0107_	PHARM_ALL_SA_0110_
Allied Health System	AH_5MTG_5PTL_5WHY_0107_31_08	'G_5PTL_5WHY_0109_3	AH_5MTG_5PTL_5WHY_		AH_5MTG_5PTL_5WHY_0107_31_08	'G_5PTL_5WHY_0109_3	AH_5MTG_5PTL_5WHY_		NA	NA	NA	NA
Patient Administration Systems	PAS_ALL_ZIP		PAS_ALL_0107_3109.zi	PAS_ALL_0110_3110.zi	PAS_ALL_ZIP		PAS_ALL_0107_3109.zi	PAS_ALL_0110_3110.zi	PAS_ALL_ZIP	PAS_ALL_0107_3109.zi		PAS_ALL_0110_3110.zi
Coded Diagnosis	Received	Received	Received	NA	Received	Received	Received	NA	Received	Received	Received	NA
Coded Procedure	Received	Received	Received	NA	Received	Received	Received	NA	Received	Received	Received	NA
Emergency non admitted	ED_5PTL_0107_3107	ED_ALL_0108_3108	ED_ALL_0109_3109.xls	ED_ALL_0110_3110.xls	ED_5WHY_0107_3107	ED_ALL_0108_3108	ED_ALL_0109_3109.xls	ED_ALL_0110_3110.xls	ED_5WCH_0107_3107	ED_ALL_0108_3108	ED_ALL_0109_3109.xls	ED_ALL_0110_3110.xls
Outreach	Included w ith outpatients	Included w ith outpatients	Included w ith outpatients	Included w ith outpatients	Included w ith outpatients	Included w ith outpatients	Included w ith outpatients	Included w ith outpatients	Included w ith outpatients	Included w ith outpatients	Included w ith outpatients	Included w ith outpatients
Costing Data												
Cost Data	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cost Centre / GL	GL_ALL_SA_2012_13		GL_FTE_ALL_010713_3	GL_FTE_ALL_010713_3	GL_ALL_SA_2012_13		GL_FTE_ALL_010713_3	GL_FTE_ALL_010713_3	GL_ALL_SA_2012_13		GL_FTE_ALL_010713_3	GL_FTE_ALL_010713_3
Allocation statistics	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_	Reclass_and_Allocation_
Oncost	included w ith GL	included w ith GL	included w ith GL	included w ith GL	included w ith GL	included w ith GL	included w ith GL	included w ith GL	included w ith GL	included w ith GL	included w ith GL	included w ith GL
Lookup tables												
Radiology lookup	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract
Laboratory lookup	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract
Pharmacy lookup	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract	Included in extract
Standard unit input costs lookup	Received	Received	Received	Received	Received	Received	Received	Received	Received	Received	Received	Received

Bulli / Children's Hospital at Westmead / Concord / David Berry / Dubbo Base

Data request	Bulli July	August	Sept	Children's Hospital at Westmead July	August	Sept	Concord July	August	Sept	David Berry July	August	Sept	Dubbo Base July	August	Sept
Data Extracts															
Outpatient booking system	Bulli OP		P202_Non-admitted_(OP	OPX630_SCHN01_07-31_08		A207_Non_Adm_(OP)_S	OPX700_SLHD01_07-31_08		A237_Non_Admitted_booking_Sept_13.csv	NA		NA	OPX850_WNSW01_07-31_08		K211_Non_Adm_(OP)Se
Medical Imaging	SLHD Immaging NAS July	SLHD Immaging NAS Aug	P202_Medical_Imaging_(	NA	RISA20705_08-31_08	RISA20701Ã°_09-30_09	RISA23701_01_07-31_08 (Concord)		A237_Medical_Imaging_(RIS) (Concord September	NA		NA	RISK21101_07-31_08(dubbo)		K211_Imaging_(RIS) (Se
Pathology	Not received	Not received	n/a	NA	5_08-31_08 (Childrens w	LISA20701_09-30_09.cs	LISA23701_01_07-31_08 (Concord)		A237_Pathology (LIS) se	LISP29101_07-31_08 (David Berry)		P291_Pathology (LIS)Se	LISK21101_07-31_08 (Dubbo)		K211_Pathology (LIS) sep
Pharmacy	SLHD Pharm Data NAS Jui	LHD Pharm Data NAS Au	P202_Pharmacy_(PHARM	NA	705_08-31_08 (Westmea	PHARMA20701_09_30_0	PharmA23701_07-31_08 (Concord)		A237_PHARM_13_Sept.	PHARMP29130_07-31_08 (David Berry)		P291_Pharmacy_(PHAR	PHARMK21101_07-31_08(dubbo)		DBH_Sept13_Pharmacy
Allied Health System	Not received	Not received	n/a	NA	05_08-31_08 (Westmea	AHPA20701_09-30_09.c	NA	NA	n/a	NA	NA	NA	NA	NA	NA
Patient Administration Systems	Not received	Not received	P202_Patient_Administra	NA	05_08-31_08 (Westmea	PASA20701_09-30_09_s	PASA23701_07_12-31_06_13 (Concord)		A237_Patient_Administra	PASP29130_07-31_08 (David Berry)		P291_Patient_Administra	PASK211601_07-31_08 (dubbo)		K211_Patient_Administra
Coded Diagnosis	Not received	Not received	P202_CodingDiagnosis.c	NA	05_08-31_08 (Westmead	DIAA20701_09-30_09 so	DIAA23701_07_12-31_06_13 (Concord)		A237_CodingDiagnosis s	NA	DIAP29130_07-31_08 (D	P291_CodingDiagnosis_	K211_CodingDiagnosis		K211_CodingDiagnosis (
Coded Procedure	Not received	Not received	P202_CodingProcedure.c	NA	5_08-31_08 (Westmead	PXA20701_09-31_09 se	PXA23701_07_12-31_06_13 (Concord)		A237_CodingProcedure	PXP29130_07-31_08 (David Berry)		P291_CodingProcedure_	K211_CodingProcedure		K211_CodingProcedure
Emergency non admitted	Not received	Not received	P202_Emergency_Non_a	NA	5_08-31_08 (Westmead	EDA20701_09-30_09 se	EDA23701_07_12-31_06_13 (Concord)		A237_Emergency_Non_	NA		NA	K211_Emergency_Non_Admitted_(ED)		K211_Emergency_Non_A
Outreach	Not received	Not received		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
Costing Data															
Cost Data	CostCentreP20201_07_11-30_06_12 (Bulli).csv	CostCentreP20201_07_1		CostCentreA20701_07_11-30_06_12 (Westmead childrens)			CostCentreA23701_07_11-30_06_12 (Concord)			CostCentreP29101_07_11-30_06_12 (David Berry)			CostCentreK21101_07_11-30_06_12 (Dubbo)		
Cost Centre / GL	Not received	Not received	Not received	CostCentreA20701_07_11-30_06_12 (Westmead childrens)			CostCentreA23701_07_11-30_06_12 (Concord)			CostCentreP29101_07_11-30_06_12 (David Berry)			CostCentreK21101_07_11-30_06_12 (Dubbo)		
Allocation statistics	Not received	Not received	Not received	CostCentreA20701_07_11-30_06_12 (Westmead childrens)			CostCentreA23701_07_11-30_06_12 (Concord)			CostCentreP29101_07_11-30_06_12 (David Berry)			CostCentreK21101_07_11-30_06_12 (Dubbo)		
Oncost	Not received	Not received	Not received	CostCentreA20701_07_11-30_06_12 (Westmead childrens)			CostCentreA23701_07_11-30_06_12 (Concord)			CostCentreP29101_07_11-30_06_12 (David Berry)			CostCentreK21101_07_11-30_06_12 (Dubbo)		
Lookup tables															
Radiology lookup		Not received		RISA207LOOKUP (Westmead children)			RISA237LOOKUP (Concord)			NA			RISK211LOOKUP(dubbo)		RISK211LOOKUP (D
Laboratory lookup		Not received		LISA207LOOKUP (Westmead childrens)			LISA237LOOKUP (Concord)			LISP291LOOKUP (David Berry)			LISK211LOOKUP (Dubbo)		
Pharmacy lookup		Not received		PHARMA207LOOKUP (Westmead Children)			PharmA237LOOKUP (Concord)		A237_Pharmacy_Lo	PHARMP291LOOKUP (David Berry)			PHARMK211LOOKUP(dubbo)		
Standard unit input costs lookup	**Use NSW Averages as per Julia McGinty**			INPUTA207LOOKUP (Children's hospital westmead)			INPUTNSWSTANDARD			**Use NSW Averages as per Julia McGinty**			INPUTNSWSTANDARD		

Table 1

Data request	John Hunter July	August	Sept	Lismore July	August	Sept	Liverpool July	August	Sept	Orange Base July	August	Sept	Nepean July	August	Sept
Data Extracts															
Outpatient booking system		Q230_Non_adm_(OP).xlsx	Q230_Non_adm_(OP).xl	OPX810_NNSW01_07-31_08		H214_Non_Adm_(OP) S	OPX710_SWS01_07-31_08		D209_Non_Adm_(OP) S	OPX850_WNSW01_07-31_08		L216_Non_Adm_(OP)Se	OPX750_NBM01_07-31_08		D210_Non_Adm_(OP) S
Medical Imaging	NA	RISQ23005_08-31_08 (J	Q230_Imaging(RIS).csv		RISH21401_07-31_08(1).xlsx	RISH21401_07-31_08(1)	RISD20901_07-31_08 (Liverpool)		D209_Medical_Imaging_(	RISL21601_07-31_08 (Orange)		L216_Imaging_(RIS) (Sep	RISD21001_07-31_08 (Nepean)		D210_Imaging.csv
Pathology	NA	LISQ23005_08-31_08 (J	Q230_Pathology(LIS).xls	LISH21401_07-31_08 (Lismore)		H214_Pathology(LIS)Sep	LISQ23005_08-31_08 (John Hunter)		D209_Pathology(LIS) Se	LISL21601_07-31_08 (Orange)		L216_Pathology_(LIS) (S	LISD21001_07-31_08 (Nepean)		D210_Pathology_(LIS) (r
Pharmacy	NA	PHARMQ23005_08-31_(	Q230_Pharmacy(PHARM	LIS Pharm 21401 july_August		H214_Pharmacy_System	NA	NA	NA	PHARML21601_07-31_08 (Orange)		OHS_Sept13_Pharmacy	PHARMD21001_07-31_08 (Nepean)		D210_Pharmacy__Sep2(
Allied Health System	NA	AHPQ230_05_08-_31_0	Q230_Allied_Health_(AH	NA	NA	Lismore _Copy_of_NAP.	NA	NA	NA	NA	NA	NA	NA	NA	NA
Patient Administration Systems	NA	PASWQ230_07-30_07 (.	Q230_Patient_Administra	PASH21401_07_08 (lismore)		Lismore _NNSW_NAP_D	PASD20901_07-31_08(Liverpool)		In July / august	PASL21601_07-31_08 (Orange)		L216_Patient_Administra	PASD21001_07-31_08 (Nepean)		D210_Sep_Patient_Adm
Coded Diagnosis	Q230_CodingDiagnosis.(	DIAWQ230_07-30_07 (J	Q230_CodingDiagnosis.	NA	NA	DIAH21401_07-31_08.cs	DIAD20901_07-31_08(Liverpool)		D209_CodingDiagnosis S	L216_CodingDiagnosis		L216_CodingDiagnosis S	DIAD21001_07-31_08 (Nepean)		D210_Sep_CodingDiagn
Coded Procedure	Q230_CodingProcedure.	PXQ230_07-30_07 (Joh	Q230_CodingProcedure.	NA	NA	PXH21401_07-31_08.cs	PXD20901_07-31_08(Liverpool)		D209_CodingProcedure	L216_CodingProcedure		L216_CodingProcedure S	PXD21001_07-31_08 (Nepean)		D210_Sep_CodingProce
Emergency non admitted	NA	EDQ23001_07-30_07 (Jc	Q230_Emergency_Non_.	NA	NA	EDH21401_07-31_08.cs	EDD20901_07-31_08 (Liverpool)		D209_Emergency_Non_A	L216_Emergency_Non_Admitted_(ED)		L216_Emergency_Non_A	EDD21001_07-31_08 (Nepean)		D210_Sep_Emergency_
Outreach	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
									D209_Medical_Imaging_(RIS)_Version_2 Liverpool resubmit.csv						
Costing Data															
Cost Data	CostCentreQ23001_07_11-30_06_12 (John Hunter)			CostCentreH21401_07_11-30_06_12 (Lismore)			CostCentreD20901_07_11-30_06_12 (Liverpool)			CostCentreL21601_07_11-30_06_12 (Orange)			CostCentreD21001_07_11-30_06_12 (Nepean)		
Cost Centre / GL	CostCentreQ23001_07_11-30_06_12 (John Hunter)			CostCentreH21401_07_11-30_06_12 (Lismore)			CostCentreD20901_07_11-30_06_12 (Liverpool)			CostCentreL21601_07_11-30_06_12 (Orange)			CostCentreD21001_07_11-30_06_12 (Nepean)		
Allocation statistics	CostCentreQ23001_07_11-30_06_12 (John Hunter)			CostCentreH21401_07_11-30_06_12 (Lismore)			CostCentreD20901_07_11-30_06_12 (Liverpool)			CostCentreL21601_07_11-30_06_12 (Orange)			CostCentreD21001_07_11-30_06_12 (Nepean)		
Oncost	CostCentreQ23001_07_11-30_06_12 (John Hunter)			CostCentreH21401_07_11-30_06_12 (Lismore)			CostCentreD20901_07_11-30_06_12 (Liverpool)			CostCentreL21601_07_11-30_06_12 (Orange)			CostCentreD21001_07_11-30_06_12 (Nepean)		
Lookup tables															
Radiology lookup	RISQ230LOOKUP (John Hunter)			_Lookup_Jul-Aug_LIS_2013(Lismore resubmis		Radiology_Lookup_J	RISD209LOOKUP (liverpool)			RISL216LOOKUP (Orange)			RISD210LOOKUP (Nepean)		RISD210LOOKUP(N
Laboratory lookup	LISQ230LOOKUP (John Hunter)			LISH214LOOKUP (Lismore)			LISD209LOOKUP (Liverpool)			LISL216LOOKUP (Orange)			LISD210LOOKUP (Nepean)		
Pharmacy lookup	PHARMQ230LOOKUP (John Hunter)			LIS PHARM LOOKUP (Lismore)			Not received			PHARML216LOOKUP (Orange)			PHARMD210LOOKUP (Nepean)		
Standard unit input costs lookup	**Use NSW Averages as per Julia McGinty**			INPUTNSWSTANDARD			INPUTNSWSTANDARD			**Use NSW Averages as per Julia McGinty**			INPUTNSWSTANDARD		

Table 2

Data request	PoW July	August	Sept	Royal Rehabilitation July	August	Sept	Royal Hospital for Women July	August	Sept	RNSH July	August	Sept	RPA July	August	Sept
Data Extracts															
Outpatient booking system	OPX720_SES01_07-31_08	C208_Non_Adm_(OP) Sept Prince of Wales.csv	NA			NA	OPX720_SES01_07-31_08		C220_Non_Adm_(OP) S	OPX760_NS01_07-31_08		B218_Non_Adm_(OP) S	OPX700_SLHD01_07-31_08		A208_Non_Admitted_Bo
Medical Imaging	RISC20801_07-31_08(PoW)	C208_Medical_Imaging_(		NA	NA	NA	RISC22001_07-31_08 (Royal Hospital for Women)		C220_Medical_Imaging_(	RISB21801_07-31_08 (RNSH)		RISB21801_07-31_08 (R	RISA20801_01-07-31_08 (RPA)		A237_Medical_Imaging_(
Pathology	LISC20801_07-31_08 (PoW)	C208_Pathology_(LIS) (		LISB22101_07-31_08 (Royal Rehabilitation)		B221_Pathology(LIS) Se	LISC22001_07-31_08 (Royal Hospital for Women)		C220_Pathology_(LIS) (r	LISB21801_07-31_08 (RNSH)		B218_Pathology_(LIS) se	LISA20801_07-31_08 (RPA)		A208_Pathology(LIS) Se
Pharmacy	PHARMC20801_07-31_08 (PoW)	C208_Pharmacy_(PHAR		PHARMB22101_07-31_08 (Royal Rehab)		NA	HARMC22001_07-31_08 (Royal Hospital for Wome)		C220_Pharmacy_System	PHARMB21801_07-31_08 (RNSH).csv		B218_Pharmacy_Sep_2(	PharmA20801_07-31_08 (RPA)		A208_PHARM_Sept_201
Allied Health System	AHPC20801_07-31_08 (PoW)	C208_Allied_Health_(AH		AHPB22101_07-31_08 (Royal Rehabilitation)		B221_Allied_Health_(AH	HPC22001_07-31_08 (Royal Hospital for women)		C220_Allied_Health_(AH	NA	NA	NA	NA	NA	A208_Patient_Administra
Patient Administration Systems	PASC20801_07-31_08 (PoW)	C208_Patient_Administra		PASB22101_07-31_08 (Royal Rehabilitation)		B221_Patient_Administra	ASC22001_07-31_08 (Royal Hospital for Women)		C220_Patient_Administra	PASB21801_07-31_08 (RNSH)		B218_Patient_Administra	PASA20801_07_12-31_06_13 (RPA)		NA
Coded Diagnosis	DIAC20801_07-31_08 (PoW)	C208_CodingDiagnosis (		B221_CodingDiagnosis (Royal rehabilitation)		B221_CodingDiagnosis.	DIAC22001_07-31_08 (Royal Hospital for Women)		C220_CodingDiagnosis s	B218_CodingDiagnosis (RNSH)		B218_CodingDiagnosis s	DIAA20801_07_12-31_06_13 (RPA)		A208_CodingDiagnosis S
Coded Procedure	PXC20801_07-31_08 (PoW)	C208_CodingProcedure		B221_CodingProcedure (Royal rehabilitation)		B221_CodingProcedure.	PXC22001_07-31_08 (Royal Hospital for Women)		C220_CodingProcedure	B218_CodingProcedure (RNSH)		B218_CodingProcedure	PXA20801_07_12-31_06_13 (RPA)		A208_CodingProcedure
Emergency non admitted	EDC20801_07-31_08 (PoW)	C208_Emergency_Non_A		NA	NA	NA	EDC22001_07-31_08 (Royal Hospital for Women)			EDB21801_07-31_08 (RNSH)		B218_Emergency_Non_A	EDA20801_07_12-31_06_13 (RPA)		A208_Emergency_Non_
Outreach	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
							C220_Medical_Imaging_(RIS) RH for W resubmit.csv			B218_Medical_Imaging_(RIS) RNSH aug and sept resubmit.xlsx					
Costing Data															
Cost Data	CostCentreC20801_07_11-30_06_12 (Prince of Wales)			CostCentreB22101_07_11-30_06_12 (Rehabilitation)			CostCentreC22001_07_11-30_06_12 (Royal Hospital for Women)			CostCentreB21801_07_11-30_06_12 (Royal North Shore)			CostCentreA20801_07_11-30_06_12 (RPA)		
Cost Centre / GL	CostCentreC20801_07_11-30_06_12 (Prince of Wales)			CostCentreB22101_07_11-30_06_12 (Rehabilitation)			CostCentreC22001_07_11-30_06_12 (Royal Hospital for Women)			CostCentreB21801_07_11-30_06_12 (Royal North Shore)			CostCentreA20801_07_11-30_06_12 (RPA)		
Allocation statistics	CostCentreC20801_07_11-30_06_12 (Prince of Wales)			CostCentreB22101_07_11-30_06_12 (Rehabilitation)			CostCentreC22001_07_11-30_06_12 (Royal Hospital for Women)			CostCentreB21801_07_11-30_06_12 (Royal North Shore)			CostCentreA20801_07_11-30_06_12 (RPA)		
Oncost	CostCentreC20801_07_11-30_06_12 (Prince of Wales)			CostCentreB22101_07_11-30_06_12 (Rehabilitation)			CostCentreC22001_07_11-30_06_12 (Royal Hospital for Women)			CostCentreB21801_07_11-30_06_12 (Royal North Shore)			CostCentreA20801_07_11-30_06_12 (RPA)		
Lookup tables															
Radiology lookup	RISC208LOOKUP (PoW)			NA			RISC220LOOKUP (Royal Hospital for Women)			RISB21801_07-31_08 (RNSH)		RIS_LOOKUP/NSW.	RISA208LOOKUP (RPA)		
Laboratory lookup	LISC208LOOKUP (PoW)			LISB221LOOKUP (Royal Rehabilitation)			LISC220LOOKUP (Royal for Women)			LISB218LOOKUP (RNSH)			LISA208LOOKUP (RPA)		
Pharmacy lookup	PHARMC208LOOKUP (PoW)			PHARMB221LOOKUP (Royal rehab)			PHARMC220LOOKUP (Royal Hospital for Women)			PHARMB218LOOKUP (RNSH)			PharmA208LOOKUP (RPA)		A208_Pharmacy_Lo
Standard unit input costs lookup	INPUTNSWSTANDARD			**Use NSW Averages as per Julia McGinty**			INPUTNSWSTANDARD			**Use NSW Averages as per Julia McGinty**			INPUTNSWSTANDARD		

PoW, Royal Rehabilitation, Royal Hospital for Women, RNSH, RPA

Data request	PoW July	PoW August	PoW Sept	Royal Rehab July	Royal Rehab August	Royal Rehab Sept	RHW July	RHW August	RHW Sept	RNSH July	RNSH August	RNSH Sept	RPA July	RPA August	RPA Sept
Data Extracts															
Outpatient booking system	OPX720_SES01_07-31_08	C208_Non_Adm_(OP) Sept	Prince of Wales.csv	NA		NA	OPX720_SES01_07-31_08	C220_Non_Adm_(OP) S		OPX760_NS01_07-31_08	B218_Non_Adm_(OP) S		OPX700_SLHD01_07-31_08	A208_Non_Admitted_Bo	
Medical Imaging	RISC20801_07-31_08(PoW)	C208_Medical_Imaging_(	NA	NA	NA	NA	RISC22001_07-31_08 (Royal Hospital for Women)	C220_Medical_Imaging_(		RISB21801_07-31_08 (RNSH)	RISB21801_07-31_08 (R		RISA20801_01_07-31_08 (RPA)	A237_Medical_Imaging_	
Pathology	LISC20801_07-31_08 (PoW)	C208_Pathology_(LIS) (F		LISB22101_07-31_08 (Royal Rehabilitation)		B221_Pathology(LIS) Se	LISC22001_07-31_08 (Royal Hospital for Women)	C220_Pathology_(LIS) (r		LISB21801_07-31_08 (RNSH)	B218_Pathology_(LIS) se		LISA20801_01_07-31_08 (RPA)	A208_Pathology(LIS) Se	
Pharmacy	PHARMC20801_07-31_08 (PoW)	C208_Pharmacy_(PHAR		PHARMB22101_07-31_08 (Royal Rehab)	NA		PHARMC22001_07-31_08 (Royal Hospital for Wome	C220_Pharmacy_System		PHARMB21801_07-31_08 (RNSH).csv	B218_Pharmacy_Sep_2(		PharmA20801_07-31_08 (RPA)	A208_PHARM_Sept_201	
Allied Health System	AHPC20801_07-31_08 (PoW)	C208_Allied_Health_(AH	AHPB22101_07-31_08 (Royal Rehabilitation)	B221_Allied_Health_(AH	AHPC22001_07-31_08 (Royal Hospital for w omen)	C220_Allied_Health_(AH		NA	NA	NA	NA	NA	NA		A208_Patient_Administra
Patient Administration Systems	PASC20801_07-31_08 (PoW)	C208_Patient_Administra	PASB22101_07-31_08 (Royal Rehabilitation)	B221_Patient_Administra	PASC22001_07-31_08 (Royal Hospital for Women)	C220_Patient_Administra		PASB21801_07-31_08 (RNSH)	B218_Patient_Administra		PASA20801_07_12-31_06_13 (RPA)		NA		
Coded Diagnosis	DIAC20801_07-31_08 (PoW)	C208_CodingDiagnosis (	B221_CodingDiagnosis (Royal rehabilitation)	B221_CodingDiagnosis (	DIAC22001_07-31_08 (Royal Hospital for Women)	C220_CodingDiagnosis s		B218_CodingDiagnosis (RNSH)	B218_CodingDiagnosis s		DIAA20801_07-31_06_13 (RPA)	A208_CodingDiagnosis S	
Coded Procedure	PXC20801_07-31_08 (PoW)	C208_CodingProcedure (	B221_CodingProcedure (Royal rehabilitation)	B221_CodingProcedure	PXC22001_07-31_08 (Royal Hospital for Women)	C220_CodingProcedure		B218_CodingProcedure (RNSH)	B218_CodingProcedure		PXA20801_07_12-31_06_13 (RPA)	A208_CodingProcedure	
Emergency non admitted	EDC20801_07-31_08 (PoW)	C208_Emergency_Non_	NA	NA	NA	NA	EDC22001_07-31_08 (Royal Hospital for Women)	NA		EDB21801_07-31_08 (RNSH)	B218_Emergency_Non_		EDA20801_07_12-31_06_13 (RPA)	A208_Emergency_Non_	
Outreach	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA		NA	NA	
									C220_Medical_Imaging_(RIS) RH for W resubmit.csv		B218_Medical_Imaging_(RIS) RNSH aug and sept resubmit.xlsx				
Costing Data															
Cost Data	CostCentreC20801_07_11-30_06_12 (Prince of Wales)			CostCentreB22101_07_11-30_06_12 (Rehabilitation)			CostCentreC22001_07_11-30_06_12 (Royal Hospital for Women)			CostCentreB21801_07_11-30_06_12 (Royal North Shore)			CostCentreA20801_07_11-30_06_12 (RPA)		
Cost Centre / GL	CostCentreC20801_07_11-30_06_12 (Prince of Wales)			CostCentreB22101_07_11-30_06_12 (Rehabilitation)			CostCentreC22001_07_11-30_06_12 (Royal Hospital for Women)			CostCentreB21801_07_11-30_06_12 (Royal North Shore)			CostCentreA20801_07_11-30_06_12 (RPA)		
Allocation statistics	CostCentreC20801_07_11-30_06_12 (Prince of Wales)			CostCentreB22101_07_11-30_06_12 (Rehabilitation)			CostCentreC22001_07_11-30_06_12 (Royal Hospital for Women)			CostCentreB21801_07_11-30_06_12 (Royal North Shore)			CostCentreA20801_07_11-30_06_12 (RPA)		
Oncost	CostCentreC20801_07_11-30_06_12 (Prince of Wales)			CostCentreB22101_07_11-30_06_12 (Rehabilitation)			CostCentreC22001_07_11-30_06_12 (Royal Hospital for Women)			CostCentreB21801_07_11-30_06_12 (Royal North Shore)			CostCentreA20801_07_11-30_06_12 (RPA)		
Lookup tables															
Radiology lookup	RISC208LOOKUP (PoW)			NA			RISC220LOOKUP (Royal Hospital for Women)			RISB21801_07-31_08 (RNSH)		RIS_LOOKUP/NSW...	RISA208LOOKUP (RPA)		
Laboratory lookup	LISC208LOOKUP (PoW)			LISB221LOOKUP (Royal Rehabilitation)			LISC220LOOKUP (Royal Hospital for Women)			LISB218LOOKUP (RNSH)			LISA208LOOKUP (RPA)		
Pharmacy lookup	PHARMC208LOOKUP (PoW)			PHARMB221LOOKUP (Royal rehab)			PHARMC220LOOKUP (Royal Hospital for Women)			PHARMB218LOOKUP (RNSH)			PharmA208LOOKUP (RPA)	A208_Pharmacy_Lo	
Standard unit input costs lookup	INPUTNSWSTANDARD			Use NSW Averages as per Julia McGinty			INPUTNSWSTANDARD			Use NSW Averages as per Julia McGinty			INPUTNSWSTANDARD		

St Josephs, St George, StV, Sacred Heart, Sydney Childrens

Data request	St Josephs July	St Josephs August	St Josephs Sept	St George July	St George August	St George Sept	StV July	StV August	StV Sept	Sacred Heart July	Sacred Heart August	Sacred Heart Sept	Sydney Childrens July	Sydney Childrens August	Sydney Childrens Sept
Data Extracts															
Outpatient booking system		NA	D213_Non_Adm_(OP) S	OPX720_SES01_07-31_08		C213_Non_Adm_(OP) S	OP690_SVHN01_07-31_08		A212_Non_Admitted_Bo	NA	NA	NA	OPX630_SCHN01_07-31_08		C238_Non_Adm_(OP) S
Medical Imaging	NA	213_19_08_31_08 (St Jo	D213_Medical_Imaging_(	RISC21301_07-31_08 (St George)		C213_Medical_Imaging_(	NA	RIS_A212_19_08_31_08	A212_Imaging_(RIS) Sep	NA	RIS_A20919_08_31_08	A209_Imaging_(RIS) Sep	NA	RISC23819_08-31_08 (S	RISC23801Ã"_09-30_09
Pathology	NA	D213_13092013 (St Jose	D213_Pathology_(LIS) S	LISC21301_07-31_08 (St George)		C213_Pathology(LIS) sep	Not received	Not received	A212_Pathology_(LIS)(S	Not received	Not received	D209_Pathology(LIS) sep	LISC23801_07-31_08 (sydney Children Hospital)		C238_Pathology_(LIS) S
Pharmacy	PHARMC21301_07-31_08 (St Josephs)	)213 Pharm StJoseph.cvs		PHARMC21301_07-31_08 (St George)		C213_Pharmacy_(PHAR	NA	NA	NA	NA	NA	NA	PHARMC23819_08-31_08 (Sydney Childrens) (RI	PHARMC23801_09_30_0	
Allied Health System	NA	213_19_08_31_08 (St Jo	D213_Allied_Health_Sys	AHPC21301_07-31_08 (St George)		C213_Allied_Health_(AH	NA	AHPA212_19_08_31_08	A212_Allied_Health_(AH	NA	AHPA209_19_08_31_08	A209_Allied_Health_(AH	NA	AHPC23819_08-31_08 (	AHPC23801_09-30_09.c
Patient Administration Systems	NA	213_19_08_31_08 (St Jo	PASD21301_09-30_09 S	PASC21301_07-31_08 (St George)		C213_Patient_Administra	NA	PAS_A212_19_08_31_0	A212_Patient_Administra	NA	PASA209_19_08_31_08	A209_Patient_Administra		08-31_08 (Sydney Childr	PASC23801_09-30_09.c
Coded Diagnosis	NA	213_19_08_31_08 (St Jo	DIAD21301_09-30_09 St	DIAC21301_07-31_08 (St George)		C213_CodingDiagnosis s	NA	DIA_A212_19_08_31_0	A212_CodingDiagnosis S	NA	DIAA209_19_08_31_08	A209_CodingDiagnosis S	DIAC23819_08-31_08 (S		DIAC23801_09-30_09.cs
Coded Procedure	NA	13_19_08_31_08 (St Jos	PXD21301_09-30_09 St	PXC21301_07-31_08 (St Geore)		C213_CodingProcedure	NA	PX_A212_19_08_31_08	A212_CodingProcedure	NA	PXA209_19_08_31_08	A209_CodingProcedure			PXC23801_09-30_09.cs
Emergency non admitted	NA	NA	NA	EDC21301_07-31_08 (St George)		C213_Emergency_Non_	NA	NA	NA	NA	NA	D209_Emergency_Non_	NA	NA	EDC23819_08-31_08 (S
Outreach	NA	NA	NA	NA	D213_Pathology_(LIS)_Version_2 St Joseph resubmit.csv		NA	NA	NA	NA	NA	NA	NA	NA	NA
Costing Data															
Cost Data	CostCentreD21301_07_11-30_06_12 (St Joseph_			CostCentreC21301_07_11-30_06_12 (St George)			CostCentreA21201_07_11-30_06_12 (St Vincents)			CostCentreA20901_07_11-30_06_12 (Sacred Heart)			CostCentreC23801_07_11-30_06_12 (Sydney Childrens)		
Cost Centre / GL	CostCentreD21301_07_11-30_06_12 (St Joseph_			CostCentreC21301_07_11-30_06_12 (St George)			CostCentreA21201_07_11-30_06_12 (St Vincents) STV IMB IMCNC costing			CostCentreA20901_07_11-30_06_12 (Sacred Heart)			CostCentreC23801_07_11-30_06_12 (Sydney Childrens)		
Allocation statistics	CostCentreD21301_07_11-30_06_12 (St Joseph_			CostCentreC21301_07_11-30_06_12 (St George)			CostCentreA21201_07_11-30_06_12 (St Vincents)			CostCentreA20901_07_11-30_06_12 (Sacred Heart)			CostCentreC23801_07_11-30_06_12 (Sydney Childrens)		
Oncost	CostCentreD21301_07_11-30_06_12 (St Joseph_			CostCentreC21301_07_11-30_06_12 (St George)			CostCentreA21201_07_11-30_06_12 (St Vincents)			CostCentreA20901_07_11-30_06_12 (Sacred Heart)			CostCentreC23801_07_11-30_06_12 (Sydney Childrens)		
Lookup tables															
Radiology lookup	RIS_D213LOOKUP (St Josephs)			RISC213LOOKUP (St George)			RIS_A212LOOKUP (St V)			RIS_A209LOOKUP (Sacred)			RISC238LOOKUP(Sydney childrens) .csv		
Laboratory lookup	LIS_D213LOOKUP (St Joseohs)			LISC213LOOKUP (St George)			Not received		A212_Pathology_Lo	A209_Pathology_Lookup_(LIS_L)Sept Sacred heart .csv			SC238LOOKUP (Sydney Childrens Hospit		C238_Pathology_(LI
Pharmacy lookup	PHARMC213LOOKUP (St Josephs)			PHARMC213LOOKUP (St George)			NA			NA			PHARMC238 (Sydney Children Hospital) RESUBMIT		
Standard unit input costs lookup	STVHN 1213 Std Cost File Avg Hourly Rates.xlsx			INPUTNSWSTANDARD			N 1213 Avg Hourly Rate for MoH 20131004 / STVHN 1213 std cos			SVHN 1213 Avg Hourly Rate for MoH 20131004.xlsx			INPOUTC238LOOKUP (Sydney Childrens)		

Table 1

Data request	Sydney Eye July	Sydney Eye August	Sydney Eye Sept	Westmead July	Westmead August	Westmead Sept	Wollongong July	Wollongong August	Wollongong Sept	Braeside July	Braeside August	Braeside Sept
Data Extracts												
Outpatient booking system	OPX720_SES01_07-31_08	A233_Non_Adm_(OP) S		OPX740_WS01_07-31_08	D224_Non_Adm_(OP) S		OPP20801_07-31_08 (Wollongong)	P208_Non_Admitted_(OP)(Wollongong sept).xlsx	NA			NA
Medical Imaging	RISA23301_07-31_08 (Sydney Eye)	A233_Medical_Imaging_		RISD22401_08-31_08_V	RISD22401_08-31_08_V	RISD22401_09-30_09.xl	RISP20801_07-31_08 (Wollongong)	P208_Medical_Imaging_(RIS)(Wollongong sept).cs	NA			NA
Pathology	LISA23301_07-31_08 (Syd Eye)	A233_Pathology_(LIS) s		LISD22401_07-31_08 (Westmead)	D224_Pathology_(LIS) s		LISP20801_07-31_08 (Wollongong)	P208_Pathology_(LIS)(W	LISD22401_07-31_08 (Braeside)		D228_Pathology(LIS) sep	
Pharmacy	PHARMA23301_07-31_08 (Sydney Eye)	A233_Pharmacy_(PHAR		PHARMD22401_07-31_08 (Westmead)	D224_Pharmacy_(PHAR		PHARMP20801_07-31_08 (Wollongong)	P208_Pharmacy_(PHARM)(Wolongong sept).xlsx	NA			NA
Allied Health System	AHPA23301_07-31_08 (sydney Eye)	A233_Allied_Health_(AH		NA	22401_08-31_08 (Westr	AHPD22401_09-30-09.x	NA	NA	NA	NA		NA
Patient Administration Systems	PASA23301_07-31_08 (Sydney Eye)	A233_Patient_Administra		NA	22401_08-31_08 (Westr	PASD22401_09-30-09.c	PASP20801_07-31_08 (Wollongong)	P208_Patient_Administra	PASD22801_07-31_08 (Braeside)		D228_Patient_Administra	
Coded Diagnosis	DIAA23301_07-31_08 (Sydney Eye)	A233_CodingDiagnosis s		NA	22401_08-31_08 (Westn	DIAD22401_09-30-09.cs	DIAP20801_07-31_08 (Wollongong)	P208_CodingDiagnosis (	DIAD22801_07-31_08 (Braeside)		D228_CodingDiagnosis s	
Coded Procedure	PXA23301_07-31_08 (Sydney Eye)	A233_CodingProcedure		NA	22401_08-31_08 (Westn	PXD22401_09-30-09.csv	PXP20801_07-31_08 (Wollongong)	P208_CodingProcedure	PXD22801_07-31_08 (Braeside)		D228_CodingProcedure s	
Emergency non admitted	EDA23301_07-31_08 (Sydney Eye)			NA	EDD22401_08-31_08 (W	EDD22401_09-30-09.csv	EDP20801_07-31_08 (Wollongong)	P208_Emergency_Non_Admitted_(ED) sept Wook	NA			NA
Outreach	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Costing Data												
Cost Data	CostCentreA23301_07_11-30_06_12 (Sydney eye)			CostCentreD22401_07_11-30_06_12 (Westmead)			CostCentreP20801_07_11-30_06_12 (Wollongong)			Braeside cost data extract2013		
Cost Centre / GL	CostCentreA23301_07_11-30_06_12 (Sydney eye)			CostCentreD22401_07_11-30_06_12 (Westmead)			CostCentreP20801_07_11-30_06_12 (Wollongong)			Not received	Not received	Not received
Allocation statistics	CostCentreA23301_07_11-30_06_12 (Sydney eye)			CostCentreD22401_07_11-30_06_12 (Westmead)			CostCentreP20801_07_11-30_06_12 (Wollongong)			Not received	Not received	Not received
Oncost	CostCentreA23301_07_11-30_06_12 (Sydney eye)			CostCentreD22401_07_11-30_06_12 (Westmead)			CostCentreP20801_07_11-30_06_12 (Wollongong)			Not received	Not received	Not received
Lookup tables												
Radiology lookup	RISA233LOOKUP (Sydney Eye)			RISA207LOOKUP (Westmead children)			RISP208LOOKUP (Wollongon)			NA		
Laboratory lookup	LISA233LOOKUP (Syd Eye)			LISD224LOOKUP (Westmead)			LISP208LOOKUP (Wollongong)			LISP208LOOKUP (Wollongong)		
Pharmacy lookup	PHARMA233LOOKUP (Sydney Eye)			PHARMD224LOOKUP (Westmead)			PHARMP208LOOKUP (Wollongong)			NA		
Standard unit input costs lookup	INPUTNSWSTANDARD			Use NSW Averages as per Julia McGinty			INPUTNSWSTANDARD			Use NSW Averages as per Julia McGinty		

Table 2

Data request	RBWH July	RBWH August	RBWH September	RBWH October	Rockhampton July	Rockhampton August	Rockhampton September	Royal Darwin July	Royal Darwin August	Royal Darwin Sept	Royal Darwin Oct	Alice Springs July	Alice Springs August	Alice Springs Sept	Alice Springs Oct
Data Extracts															
Outpatient booking system	PRBWH01_07to30_07.xls	PRBWH01_08to31_08.xls	OPRBWH01_09_30_09.x	OPRBWH01_10to31_10.	OPRHN01_0731_07	OPRHN01_0831_08	ROC OPRHN01_0930_09.xls	ABF_NAP_1314_Q1.zip	ABF_NAP_1314_Q1.zip	ABF_NAP_1314_Q1.zip		ABF_NAP_1314_Q1.zip			
Medical Imaging	SRBWH01_07to30_07.xls	RISRBWH01_08to31_08	RISRBWH01_09_30_09.x	OPRBWH01_10to31_10.	RISRHN01_0731_07	RISRHN01_0831_08	ROC RIS_L0109_30_09.xls	RISRDH01_07-30_09	ABF_MEDICAL_IMAGING_1314_Q1.zip	RISASH01_07-30_09		ABF_MEDICAL_IMAGI	ABF_MEDICAL_IMAGI		
Pathology	LISRBWH01_07to30_07.xls	LISRBWH01_08to31_08.xls	LISRBWH01_Sept.xlsx	LISRBWH01_10to31_10.	LISRHN01_0731_07	LISRHN01_0831_08	ROC LIS_LRHN01_09_30_09.xls	LISRDH01_07-30_09.csv	ABF_PATHOLOGY_1314_Q1.zip	LISASH01_07-30_09.csv		ABF_PATHOLOGY_1	ABF_PATHOLOGY_13		
Pharmacy	ARMRBWH01_07to31_07.	RMRBWH01_08to31_08.	PHARMRBWH01_09_30	PHARMRBWH01_10to31	PHARMRHN01_0731_07	PHARMRHN01_0831_08	ROC PHARMRHN01_09_30_09.xl	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Allied Health System	HPRBWH24_07to31_07.x	HPRBWH01_08to31_08.x	RBWH AH_data_individu	RBWH AH_data_individu	HPRHN01_07_31_07.xls	HPRHN01_08_31_08.xls	ROC AHPRHN01_09_30_09.xls	AHPRDH01_07-30_09	ABF_ALLIED_HEALTH_1314_Q1.zip	AHPASH01_07-30_09		ABF_ALLIED_HEALTH_1314_Q1.zip			
Patient Administration Systems	PASRBWH01_07to31_0 7.xls PAS2RBWH01_07to31_ 07.xls	PAS2RBWH01_08to31_ 08.xlsx PASRBWH01_08to31_0 8.xlsx	PAS2RBWH01_Sept.xls PASRBWH01_Sept.xlsx	PAS2RBWH01_10to31_ 10.xlsx PASRBWH01_10to31_1 0.xlsx	PASRHN01_0731_07	PASRHN01_0831_08	PASROC20109_3009 re do .xls	PASRDH01_07-30_09	ABF_APC_1314_Q1.zip	PASASH01_07-30_09		ABF_APC_1314_Q1.zip			
Coded Diagnosis	DIARBWH01_07_31_07	DIARBWH01_08_31_08	DIARBWH01_09_30_09.	DIARBWH01_10to31_10	DIARHN01_07_31_07	DIARHN01_08_31_08	ROC DIARHN01_09_30_09.xls	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Coded Procedure	PXRBWH01_07_31_07	PXRBWH01_08_31_08	PXRBWH01_09_30_09.x	PXRBWH01_10to31_10.	PXRHN01_07_31_07	PXRHN01_08_31_08	ROC PXRHN01_09_30_09.xls	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Emergency non admitted	EDRBWH01_07to30_07.x	EDRBWH01_08to31_08.x	EDRBWH01_09_30_09.	EDRBWH01_10to31_10.	EDRHN01_0731_07	EDRHN01_0831_08	ROC EDRHN01_0930_09.xls	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Outreach	N/A	N/A			N/A	N/A									
			KintrackRBWH_0109_1810.xlsx				ROC RISRHN01_09_30_09.xls								
Costing Data			LISRBWH0109_3009.xlsx												
Cost Data	NASS_QLD_Cost_Weight_Reports_OP_and_SNAP				NASS_QLD_Cost_Weight_Reports_OP_and_SNAP			NT Expenditure 2013_2014 6 months	NT Expenditure 2013_2014 6 months	NT Expenditure 2013_2014 6 months		NT Expenditure 2013_2014 6 months			
Cost Centre / GL	NASS_QLD_Cost_Centres		Received		NASS_QLD_Cost_Centres		Received								
Allocation statistics	NASS_QLD_RBH_Allocation Stat_2012				NASS_QLD_RHN_Allocation_Stat_2012										
Oncost	Received as part of cost file				Received as part of cost file										
Lookup tables															
Radiology lookup	RIS_LRHNLookup re done.xls		RIS_LRHNLookup re done.xls		RIS_LRHNLookup re done.xls										
Laboratory lookup	NASS_QLD_PathLookup list		NASS_QLD_PathLookup list		NASS_QLD_PathLookup list			N/A	N/A	N/A		N/A			
Pharmacy lookup	WH_Pharmacy_LookUp_Part_1.xls (updat	WH_Pharmacy_LookUp_Part_1.xls (updat			PHARMProdcost_RHN1307			N/A	N/A	N/A		N/A			
Prosthetics lookup	Received		Received		Received			Not received	Not received	Not received		Not received			
Consumables lookup	Received		Received		Received			Received	Received	Received		Received			
Ward lookup	Received		Received		Received			Received	Received	Received		Received			
Clinic lookup	Received		Received		Received			Received	Received	Received		Received			
Standard unit input costs lookup	Receved (pdf files)		Receved (pdf files)		Receved (pdf files)			Received	Received	Received		Received			
								Not received	Not received	Not received		Not received			

Data request	The Alfred				Bendigo				Additional outpatient files received:
	July	August	Sept	Oct	July	August	Sept	Oct	
Data Extracts									OPBendigo01_06-30_06
Outpatient booking system	N/A	N/A	N/A	N/A	OPBendigo01_07-31_07	OPBendigo01_08_31_08	OPBendigo01_09_30_09	N/A	OPsub-acuteBendigo01_06-30_06
Medical Imaging	RIS17BEU01_07-31_08		RIS17BEU01_07-31_10.x	N/A	RISBendigo01_07-31_07	RISBendigo01_08_31_08	RISBendigo01_09_30_09	N/A	OPsubacuteBendigo01_07_31_07
Pathology	LIS17BEU01_07-31_08		LIS17BEU01_07-31_10.x	N/A	N/A	N/A	N/A	N/A	OPsubacuteBendigo01_08_31_08
Pharmacy	PHARM17BEU01_07-31_08		PHARM17BEU01_07-31_	N/A	HARMBendigo01_07_31_	HARMBendigo01_07_31_	PHARMBendigo01_09_3	N/A	OREACHBendigo01_06-30_06
Allied Health System	AHP17BEU01_07-31_08		AHP17BEU01_07-31_10	N/A	N/A	N/A	N/A	N/A	OREACHBendigo01_07-31_07
Patient Administration Systems	PAS17BEU01_07-31_08		PAS17BEU01_07-31_10	N/A	N/A	N/A	N/A	N/A	OREACHBendigo01_08_31_08
Coded Diagnosis	DIA17BEU01_07-31_08		DIA17BEU01_07-31_10.x	N/A	N/A	N/A	N/A	N/A	OREACHBendigo01_09_31_09.xlsx
Coded Procedure	PX17BEU01_07-31_08		PX17BEU01_07-31_10.x	N/A	N/A	N/A	N/A	N/A	
Emergency non admitted	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Outreach	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Costing Data									
Cost Data		Received costed data file				COST Bendigo - 11-12	COST Bendigo - 11-12		
Cost Centre / GL		Received costed data file				implied in cost data	implied in cost data		
Allocation statistics		Not received		Not received		implied in cost data	implied in cost data		
Oncost		Not received		Not received		implied in cost data	implied in cost data		
Lookup tables									
Radiology lookup		RIS_Lookup (Alfred)		RIS_Lookup (Alfred)		RISBendigoLOOKUP	RISBendigoLOOKUP		
Laboratory lookup		LIS_Lookup (Alfred)		LIS_Lookup (Alfred)		implied in cost data	implied in cost data		
Pharmacy lookup		PHARM_Lookup (Alfred)		PHARM_Lookup (Alfred)		implied in cost data	implied in cost data		
Prosthetics lookup		N/A		N/A		Received	Received		
Consumables lookup		Received		Received		Received	Received		
Ward lookup		Received		Received		N/A	N/A		
Clinic lookup		N/A		N/A		Received	Received		
Standard unit input costs lookup		Not received		Not received		INPUTBendigoLOOKUP	INPUTBendigoLOOKUP		
AN-SNAP	BEU01_07-31_08_AN SNAP EYIHPA201		BEU01_07-31_08_AN SNAP EYIHPA201						

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