

NSW HEALTH

Operating Theatre Management Project

Supplementary Report on
INFORMATION MANAGEMENT SURVEY

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Operating Theatre Management Project –
Supplementary Report on Information Management Survey

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NSW HEALTH DEPARTMENT

73 Miller Street

North Sydney

NSW 2060

Tel. (02) 9391 9000

Fax. (02) 9391 9101

www.health.nsw.gov.au

A full copy of this report can be downloaded from the
NSW HealthWeb site: www.health.nsw.gov.au

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Executive summary

The Operating Theatre Management Survey was undertaken as part of the Operating Theatre Management Project which aims to assess the efficiency of operating theatre utilisation. For this survey, operating rooms included specialist procedural rooms undertaking invasive procedures. The objective of this survey was to obtain information on operating theatre activity data collection systems, data definitions and data coding for case level and session level data. Supplementary questions examined the recording of priority codes and emergency flags for procedures. The results of this survey identified the range of variation and consistency of these items amongst participating facilities. Facilities were identified which have the capacity to provide operating theatre activity data using comparable definitions. These facilities were asked to provide the NSW Department of Health with operating theatre data extracts to be used in producing appropriate comparative operating theatre performance reports.

A strength of the survey is the high overall response rate of 67%, with higher response rates for principal referral hospitals, paediatric specialist hospitals,

ungrouped acute hospitals, major metropolitan hospitals, major non-metropolitan hospitals and district group 1 hospitals.

This report summarises the findings with separate data analysis for facilities using computerised information systems and paper based systems for operating theatre activity data recording. The information gathered from the supplementary questions, such as systems used, use of priority codes, emergency flags and the extent of regular reports identify opportunities for further investigation of these variables as they contribute to improved operating theatre management.

Forty-two facilities recorded operating theatre activity data using a computer system. Of these 21 used the same five data definitions and eight used four of the same data definitions identified in the survey. A Microsoft Excel spreadsheet is the reporting format preferred by 21 respondents who use a computer system of operating theatre data recoding.

Introduction

Background

In 1996 the NSW Department of Health together with Area Health Services undertook the Operating Theatre System Project to develop data elements and definitions for recording operating theatre utilisation data. It was envisaged that if the recommendations were widely implemented this would facilitate appropriate comparative performance monitoring of operating theatre services across NSW. A copy of the report of this project is available at <http://www.clininfo.health.nsw.gov.au/hospolic/otsp/httoc.html>

The present project commenced in 2001 under the auspices of the (NSW) State Continuous Improvement Steering Committee. The project seeks firstly to assess, among facilities in NSW, the extent of uniformity in the use of a subset of data definitions recommended from the 1996 project. Secondly it seeks to obtain and analyse information on the operating theatre processes, with a focus on scheduling, and its impact on operating theatre utilisation.

The goal of the 2001 Operating Theatre Management project is to identify opportunities to improve the efficiency of operating theatres in public health facilities in NSW. Specific objectives are to:

- identify facilities using the same data definitions for an identified data subset, to enable appropriate comparative reporting
- define a set of appropriate performance indicators to flag significant variations in management and practice of operating theatres
- identify operating theatre management processes and practises which maximise effective theatre utilisation
- improve the integration of operating theatre management with bed management.

Overview of this report

This report provides information on the method of survey as well as analysis of the data gathered through the survey. The purpose of the report is to provide the rationale for the development of a comparative reporting framework for operating theatre utilisation.

Aims and objectives of the survey

The objective of the survey was to obtain information on operating theatre activity data recording in facilities across NSW to identify facilities with comparable data recording systems and processes.

The survey was designed to identify the:

- facilities using computer based systems for recording operating theatre activity data
- software programs used for operating theatre activity data recording
- format preferred by facilities for providing data extracts to the NSW Department of Health
- range of variation in how case level data is coded for:
 - operating room
 - surgeon/proceduralist
 - anaesthetist
 - procedure
- range in variation in how session level data is coded for:
 - date of procedure
 - operating room/emergency room
 - allocated surgeon
 - allocated session start time
 - allocated session finish time
 - actual session start time
 - actual session finish time

- extent of use of the recommended data definition for the 5 selected items of:
 - anaesthesia start time
 - procedure/surgery start time
 - procedure/surgery finish time
 - patient out of room time
 - patient out of recovery time.
- identify the most feasible format for facilities to provide operating theatre activity data
- identify facilities from which to request operating theatre data extracts
- provide information to profile the status of facilities in NSW with respect to number of theatres.

The results of the survey were used to:

- identify facilities that have the capacity to provide operating theatre activity data using comparable definitions

Survey method

Survey development

The major stages in the development of the survey were:

- Development of the project scope and plan, which included approval from the NSW Department of Health, State Continuous Improvement Steering Committee and consultation with the Operating Theatre Management Project Working Group.
- Survey design including the development of criteria for selection and inclusion of questions. The criteria were, that the information was not readily available from other surveys or other sources and that the information gathered from the question contributed to improved analysis of theatre utilisation.

The survey

A copy of the survey is shown in Appendix 1.

Sampling

All health facilities in NSW were identified from the listing in the *Health Services Comparison Data Book 1998/1999*. Hospital groupings were selected on the basis that their peer group designation reflected activity in operating theatre procedures or specialist procedure rooms undertaking invasive procedures. This included:

- principal referral hospitals
- paediatric specialist hospitals
- ungrouped acute
- major metropolitan hospitals
- major non metropolitan

- district group 1 hospitals
- district group 2 hospitals
- community acute hospitals.

Hospital groupings excluded:

- community non acute
- psychiatric
- nursing homes
- multi-purpose services
- hospices
- rehabilitation
- mothercraft
- ungrouped non acute.

Using this sampling strategy 116 facilities were identified for survey.

Administration and data collection

A letter was faxed to the Chief Executive Officer (CEO) of each Area Health Service. The letter to the CEO did not request Area coordination of responses but was intended to keep them informed of the communications between the NSW Department of Health and facilities in their Area. This was followed the next day by a direct mail out of the survey with a covering letter to the General Manager/Executive Director of the 116 health facilities in the sample.

In addition to the hard copy mail out to facilities, the survey could be accessed and submitted via the NSW Department of Health web page. Respondents had the option of returning completed surveys by faxing, mailing or submitting on line. Facilities had 12 working days to complete the survey.

Results

Three facilities advised that they did not have Operating Theatres, thus n =113

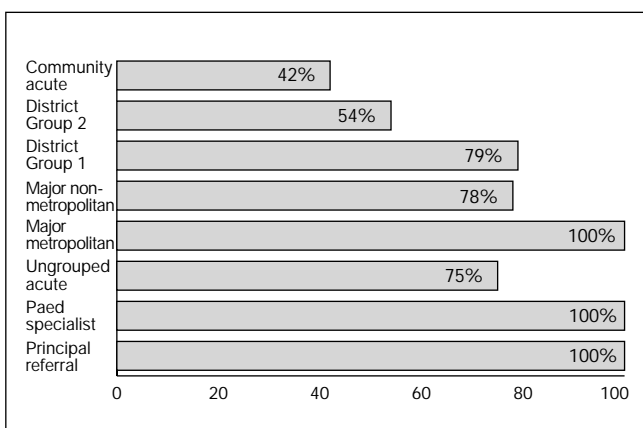
Surveys were completed by 76 (67%) facilities. Late surveys were included in the analysis, as the additional time was not considered to have influenced their responses. As one of the objectives of this survey was to determine which facilities could submit operating theatre data extracts to the NSW Department of Health, the survey data was analysed separately for those facilities using computer based and paper based systems. It was not expected that facilities using paper-based systems would be requested to provide theatre activity data electronically as this would require considerable resources.

Profile of returns

Type of hospital groups

A good rate of return was received within each of the hospital groups surveyed.

Figure 1 shows the percentage return by hospital type with 100% return from principal referral, paediatric specialist and major metropolitan hospitals. Community acute facilities, had the lowest response rate of 42 %.



Response rate by hospital group

Area Health Service

All Area Health Services were represented in the facilities responding to the survey. Appendix 2 provides a list of respondents by hospital grouping and Area Health Service.

Operating rooms

Overall the number of operating theatres ranged from 1 to 19, with a median of 6. From the survey the most number of operating rooms at one facility was 19.

Hospital group	Range	Median	Mode	Mean
Principal referral	6-19	9.5	-	11
Paediatric specialist	4-8	-	-	6
Ungrouped acute	3-6	4	-	4.3
Major metropolitan	2-8	4	3	4.3
Major non-metropolitan	3-5	4	4	3.8
District Group 1	1-4	2.5	2	2.4
District Group 2	1-3	2	2	1.8
Community acute	1	1	1	1

Number of operating rooms per hospital group

Dedicated emergency operating room

There were 14 facilities that reported they had a dedicated emergency operating room. Eight of these were principal referral hospitals with 6 or more operating rooms.

Information systems

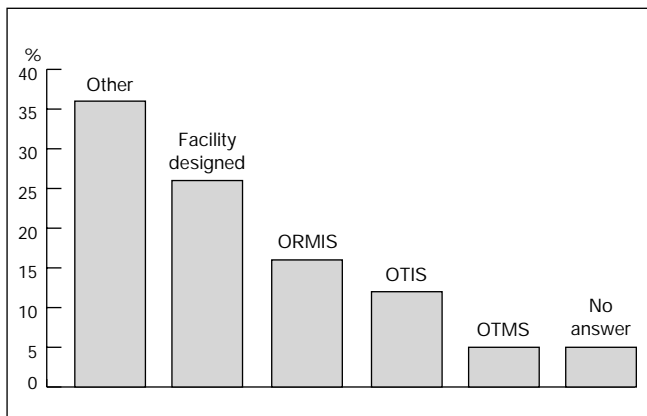
This section of the survey focused on obtaining data on the information systems and processes in use for recording and reporting of operating theatre activity.

System used

Forty-two facilities reported using a computer-based system for data recording. Of the remaining 34 facilities using a paper-based system, 10 of these had 3 and more theatres.

Programs used

The data from the survey show that there is considerable variation in the software programs used by facilities. In Area Health Services that have adopted an Area-wide strategy for Information Technology there is greater uniformity in the software used. Facility-designed programs are used more than any single commercially designed program.



Software programs used to capture data

Appendix 3 provides a table of facilities by the type of software program used to record and report operating theatre activity.

Preferred reporting format

This question was designed to identify the preferred reporting format by facilities. This information was to assist in developing the format for requesting operating theatre activity data extracts from hospitals.

Preferred reporting format	Computer based n = 42	Paper based n = 34
Text limited field	12%	9%
Microsoft Access	21%	12%
Microsoft Excel	67%	67%
No answer	0	12%

Preferred reporting format

Date format for extract , dd/mm/yyyy

This question supplemented the information gathered on the preferred reporting format.

93%(n=76) of respondents were able to extract data using this date format. This included facilities using both computer and paper based systems. For hospitals using a paper-based system this would require entering all the data retrospectively into an Access or Excel program.

Data entered in real time

Eight facilities responded that they record data in real time.

- Port Macquarie Base Hospital
- Prince of Wales Hospital
- Royal North Shore Hospital
- St George Hospital
- Sydney Children's Hospital
- Sydney Hospital & Sydney Eye Hospital
- The Children's Hospital at Westmead
- Westmead Hospital

Operating systems interfaced with the Patient Administration System

Twenty-one facilities have systems, which interface with the PAS.

Extract regularly produced for a clinical costing system

Seventeen facilities using a computer-based system produce an extract regularly. Two facilities using a paper-based system produce an extract regularly.

Case level information

The purpose of this section of the survey was to determine the range of variation in the data items collected and the codes used across facilities in NSW.

Operating Room code

Computer based			Paper based		
Not coded	By number	By name	Not coded	By number	By name
5	35	2	19	13	2

Case surgeon / proceduralist

Computer based			Paper based		
Not coded	By number	By name	Not coded	By number	By name
3	37	2	10	24	0

Case anaesthetist

Computer based			Paper based		
Not coded	By number	By name	Not coded	By number	By name
6	34	2	10	24	0

Procedure code (4 no answer)

Computer based					Paper based				
No code	DMBS	ICD10	Local	Multiple	No code	CMBS	ICD10	Local	Multiple
11	14	9	4	1	27	1	5		

Flag for emergency

The purpose of this question was to assess the availability of data on whether a procedure was an emergency or not and so decide whether this data item should be requested from facilities. This information is important in analysing theatre utilisation to better understand the demand and use of theatres for emergency procedures compared with other procedures. Such information would also be useful in informing a facility's existing scheduling processes.

Computer based			Paper based		
Yes	No	No answer	Yes	No	No answer
30	10	2	17	15	2

Priority code for all cases

The purpose of this question was to assess the availability of data on the clinical priority of procedures and so decide whether this data item should be included in any operating theatre data extract. This information would be valuable in analysing theatre utilisation. Such information would also be useful in informing a facility's existing scheduling processes.

Computer based		Paper based		
Yes	No	Yes	No	No answer
25	17	12	20	2

Data definitions

Five recommended data definitions from the 1996 Operating Theatre System Project were selected for evaluation. The purpose of this question was to identify the extent of consistency of use in definitions. In developing any potential comparative reports on theatre utilisation it is important to establish that the data definitions used by different facilities are the same. This enables variations in utilisation to be more fairly and accurately assigned to special causes other than difference in the data definitions used. Where facilities used different definitions the survey requested that this definition be specified.

Definitions used in this survey were:

Anaesthesia start time

Time when an anaesthetist begins preparing the patient for an anaesthetic.

Procedure/surgery start time

The earlier time of either the specific positioning of the patient for surgery or commencement of skin preparation.

Procedure / surgery finish time

Time when all the instruments and sponge counts are completed and verified as correct; all postoperative radiological studies to be done in the operating or procedure room are completed; all dressings and drains are secured and the surgeons / physicians have completed all procedure related activities on the patient.

Patient out of room time

Time at which patient leaves the operating room or procedure room.

Out of recovery time

Time at which patient is transported out of recovery.

No. of definitions used	Computer (n=42)	Paper (n=34)
Five definitions	21	16
Four definitions	8	7
Three definitions	5	6
Two definitions	4	4
One definition	1	0
None	3	1

For those using four definitions the most common difference between this group and the group using all five definitions was that they either did not record 'procedure finish time' or 'out of operating room time' rather than using a different definition to the one specified on the survey.

Session level data

This question aimed to identify the extent and range of data that was recorded for each case. If available this information would enable a further level of analysis of utilisation.

Information recorded	Computer (n=42)	Paper (n=34)
Date	39	28
Operating room code	36	14
Emergency room code	10	0
Allocated session surgeon	39	25
Start time of allocated session	37	18
End time of allocated session	37	18
Start time of actual session	31	17
End time of actual session	31	17

The low number of facilities recording the emergency room code reflects the fact that only 14 facilities identified having a dedicated emergency room. None of the facilities using a paper-based system for recording activity had a dedicated emergency room.

Discussion

Achieving the objectives

The number of operating theatres ranged from 1 to 19. Fourteen facilities reported having a dedicated emergency operating theatre. Eight of these were principal referral hospitals with six or more operating rooms. The data on facilities using computer-based systems was combined with information on the consistency in the use of the specified data definitions for each of these facilities. This analysis provided a list of facilities that varied in the number of data definitions they shared. This list was discussed at the Operating Theatre Management Group meeting. It was agreed that facilities that used either all five or at least four of the data definitions would be invited to submit their operating theatre activity data. Twenty-nine facilities (Appendix 4) fulfilled these criteria. Of these two preferred a text limited field, six preferred Microsoft Access and 21 preferred Microsoft Excel. Based on this response to the preferred reporting format, a template for all three formats was provided to maximise the participation of all facilities.

Reporting and disseminating results

A copy of this report is to be provided to all Area Health Services and facilities participating in the survey.

Appendix 1 – Operating theatre management survey

Includes operating rooms and specialist procedure rooms undertaking invasive procedures.

If you would like further information or need clarification on any of the questions please do not hesitate to contact Vijay Naidoo on (02) 9391 9211 or at vnaid@doh.health.nsw.gov.au.

This survey is also available on NSW Department of Health web page at <http://internal.health.nsw.gov.au/pmd/otsurvey.html>

Please circle your selection from options provided eg (Yes) / no

Service / facility _____

Person completing form _____ Position _____

Telephone _____ Fax _____ E-mail _____

Number of operating rooms _____ Do you have a dedicated emergency operating room? Yes / no

Section 1 – Operating theatre information systems

1. What system do you presently use to capture data on operating theatre activity? Computer based / Paper based / ORMIS / OTMS / OTIS

Facility designed (specify) _____

Other (specify) _____

2. If NSW Health required regular reporting, which is your preferred reporting format? Text limited field / Microsoft Access / Microsoft Excel

3. Is information regarding dates able to be extracted in the format dd/mm/yyyy? Yes / No

4. Is data entered into your system in real time? Yes / No

5. Is the system interfaced with the Patient Administration System? Yes / No

6. Is an extract regularly produced for a clinical costing system? Yes / No

Section 2 – Data items currently collected

Case level information

1. For each case how is the following coded?

a. Operating room Not coded / By number / By name

Other (specify) _____

What is the maximum number of characters for this field? _____

b. Case surgeon / proceduralist *please circle* Not coded / By number / By name

Other (specify) _____

What is the maximum number of characters for this field? _____

c. Case anaesthetist Not coded / By number / By name

Other (specify) _____

What is the maximum number of characters for this field? _____

d. Is there a flag for Emergency cases? Yes / No

e. Do you use priority codes for all cases? (elective / subacute / emergency) Yes / No

What is the maximum number of characters for this field? _____

continued over...

Appendix 1 – Operating theatre management survey continued

f. Procedure *select more than one if appropriate* Not coded / By CMBS / By ICD 10 / Local code / Multiple codes

Other (specify) _____

What is the maximum number of characters for this field? _____

Data definitions

2. Do you use the following definitions to record each case?/

a. Anaesthesia start – Time when an anaesthetist begins preparing the patient for an anaesthetic. Yes / No / Not recorded

If different definition used, specify used _____

b. Procedure / surgery start – The earlier time of either the specific positioning of the patient for surgery or commencement of the skin preparation.

Yes / No / Not recorded

If different definition used, specify used _____

c. Procedure / surgery finish – Time when all the instruments and sponge counts are completed and verified as correct; all postoperative radiological studies to be done in the operating or procedure room are completed; all dressings and drains are secured and the surgeons / physicians have completed all procedure related activities on the patient. Yes / No / Not recorded

If different definition used, specify used _____

d. Patient out of room – Time at which patient leaves the operating room or procedure room. Yes / No / Not recorded

If different definition used, specify used _____

e. Out of recovery – Time at which patient is transported out of recovery. Yes / No / Not recorded

If different definition used, specify used _____

Session Level Data

3. For each session extract is the following recorded?

a. Date Yes / No

b. Operating room code Yes / No

c. Emergency room code Yes / No

d. Allocated session surgeon Yes / No

e. Start time of allocated session Yes / No

f. End time of allocated session Yes / No

g. Start time of actual session Yes / No

If Yes specify definition used _____

h. End time of actual session *please circle* Yes / No

If Yes specify definition used _____

Thank you for taking the time to complete this survey.

Appendix 2 – Facilities by peer group and Area Health Service

Principal referral – total in NSW = 12

Concord Repatriation Hospital	Central Sydney Area Health Service
Gosford Hospital	Central Coast Area Health Service
John Hunter Hospital	Hunter Area Health Service
Liverpool Hospital	South Western Sydney Area Health Service
Nepean Hospital	Western Area Health Service
Prince of Wales Hospital	South Eastern Sydney Area Health Service
Royal North Shore Hospital	Northern Sydney Area Health Service
Royal Prince Alfred Hospital	Central Sydney Area Health Service
St George Hospital	South Eastern Sydney Area Health Service
St Vincent's Hospital	South Eastern Sydney Area Health Service
Westmead Hospital	Western Area Health Service
Wollongong Hospital	Illawarra Area Health Service

Paediatric specialist – total in NSW = 2

The Children's Hospital, Westmead	Children's Hospital Westmead
Sydney Children's Hospital	South Eastern Sydney Area Health Service

Ungrouped acute – total in NSW = 4

Newcastle Mater Misericordiae Hospital	Hunter Area Health Service
Royal Hospital for Women	South Eastern Sydney Area Health Service
Sydney Hospital & Eye Hospital	South Eastern Sydney Area Health Service

Major metropolitan – total in NSW = 13

Auburn Health Service	Western Area Health Service
Bankstown Hospital	South Western Sydney Area Health Service
Blacktown Hospital	Western Area Health Service
Campbelltown Hospital	South Western Sydney Area Health Service
Canterbury Hospital	Central Sydney Area Health Service
Fairfield Hospital	South Western Sydney Area Health Service
Hornsby & Ku-Ring-Gai Hospital	Northern Sydney Area Health Service
Manly Warringah Hospital	Northern Sydney Area Health Service
Mona Vale Hospital	Northern Sydney Area Health Service
Mount Druitt Hospital	Western Area Health Service
Ryde Hospital	Northern Sydney Area Health Service
Sutherland Hospital	South Eastern Sydney Area Health Service
Wyong Hospital	Central Coast Area Health Service

Major non-metropolitan – total in NSW = 9

Albury Base Hospital	Greater Murray Area Health Service
Coffs Harbour Base	Mid North Coast Area Health Service
Lismore Base Hospital	Northern Rivers Area Health Service
Manning Base Hospital	Mid North Coast Area Health Service
Orange Base Hospital	Mid West Area Health Service
Port Macquarie Base	Mid North Coast Area Health Service
Tamworth Base Hospital	New England Area Health Service

Appendix 2 – Facilities by peer group and Area Health Service continued...

District Group 1 – total in NSW = 14

Armidale Hospital	New England Area Health Service
Bathurst Base Hospital	Mid West Area Health Service
Belmont District Hospital	Hunter Area Health Service
Bowral Hospital	South Western Sydney Area Health Service
Broken Hill Base Hospital	Far West Area Health Service
Goulburn Base	Southern Area Health Service
Grafton Base	Northern Rivers Area Health Service
Maitland Hospital	Hunter Area Health Service
Shellharbour Hospital	Illawarra Area Health Service
Shoalhaven District Hospital	Illawarra Area Health Service
Tweed Heads District Hospital	Northern Rivers Area Health Service

District Group 2 – total in NSW = 28

Ballina District Hospital	Northern Rivers Area Health Service
Bega District Hospital	Southern Area Health Service
Bulli District Hospital	Illawarra Area Health Service
Casino District	Northern Rivers Area Health Service
Forbes District Hospital	Mid West Area Health Service
Gunnedah District	New England Area Health Service
Kempsey District Hospital	Mid North Coast Area Health Service
Lithgow District Hospital	Mid West Area Health Service
Macksville & District Hospital	Mid North Coast Area Health Service
Macleay District Hospital	Northern Rivers Area Health Service
Mudgee District Hospital	Macquarie Area Health Service
Murwillumbah District Hospital	Northern Rivers Area Health Service
Parkes District Hospital	Mid West Area Health Service
Singleton District Hospital	Hunter Area Health Service
Young District Hospital	Southern Area Health Service

Community Acute – total in NSW = 31

Bellinger River District Hospital	Mid North Coast Area Health Service
Byron District Hospital	Northern Rivers Area Health Service
Cobar District Hospital	Macquarie Area Health Service
Condobinin District Hospital	Mid West Area Health Service
Cootamundra Hospital	Greater Murray Area Health Service
Corowa Hospital	Greater Murray Area Health Service
Crookwell District	Southern Area Health Service
Finley Hospital	Greater Murray Area Health Service
Narrabri District Hospital	New England Area Health Service
Quirindi Hospital	New England Area Health Service
Wauchope District Memorial Hospital	Mid North Coast Area Health Service
Wellington District Hospital	Macquarie Area Health Service
Yass District Hospital	Southern Area Health Service

Appendix 3 – Facilities by the type of software program

Software programs used for by facilities for recording operating theatre data

Facilities using ORMIS

Lismore Base Hospital
Prince of Wales Hospital
St George Hospital
Sutherland Hospital
Sydney Children's
Sydney Hospital and Sydney Eye
Tweed Heads Hospital

Facilities using OTMS

Canterbury Hospital
Wyong Hospital

Facilities using OTIS

Gosford Hospital
Hornsby Hospital
Manly Hospital
Nepean Hospital
Ryde Hospital

Facilities using facility designed

Auburn Health Service	Access database
Bankstown Hospital	Access database
Goulburn Base	Access database
Lithgow Hospital	Filemaker Pro
Liverpool Hospital	Access database
Manning Base	Excel based
Newcastle Mater Misericordiae	Excel based
Parkes Hospital	Excel based
Royal Hospital for Women	Access database
Wauchope Hospital	Access database

Facilities using other programs

Albury Base	ORSOS
Bulli Hospital	ORSC
Children's Hospital Westmead	ORSOS
Concord Hospital	Area TMIS
John Hunter Hospital	TERGAL
Mona Vale Hospital	HA Solutions
Orange Health Service	HA Solutions
Port Macquarie Base Hospital	I.B.A
Royal North Shore hospital	PRBS
Royal Prince Alfred Hospital	TMIS
Shellharbour Public	ORSC
Shoalhaven Hospital	ORSC
St Vincents Hospital	Thudman / ORMNIS
Tamworth Base	Thesis
Westmead Hospital	PIMS
Wollongong Hospital	ORSC

Appendix 4 – Facilities using all 5 or at least 4 definitions specified in the survey

1. Albury Base Hospital
2. Bankstown Hospital *
3. Bulli District Hospital
4. Canterbury Hospital
5. Concord Repatriation Hospital
6. Gosford Hospital*
7. Hornsby & Ku-Ring-Gai Hospital
8. John Hunter Hospital
9. Lithgow District Hospital
10. Liverpool Hospital*
11. Manly*
12. Manning Base Hospital*
13. Mona Vale Hospital
14. Nepean Hospital
15. Parkes District Hospital
16. Port Macquarie Base*
17. Prince of Wales Hospital
18. Royal North Shore Hospital*
19. Royal Prince Alfred Hospital
20. Ryde Hospital
21. Shellharbour Hospital
22. Shoalhaven District Hospital
23. St George Hospital*
24. Sydney Children's Hospital
25. Tamworth Base Hospital
26. The Children's Hospital, Westmead
27. Westmead Hospital
28. Wollongong Hospital
29. Wyong Hospital

* Facilities using 4 definitions

Acknowledgements

Operating Theatre Management Project Group

At the commencement of this project an Operating Theatre Management Project Group was set up. The group has representation from six Area Health Services. Dr. Tony Eyers, member of the Royal Australasian College of Surgeons (NSW) and a member of the State Continuous Improvement Steering Committee, chairs the Group.

Group membership includes the following:

Wollongong Hospital, IAHS

Ms Barbara Banyard
Ms Natalie Berg
Ms Deborah Cameron
Mr Alan Leonard
Mr Graham Letham

Royal Prince Alfred Hospital, CSAHS

Ms Rosie Ch'ng
Dr Paul Stalley
Mr Mathew Sydenham
Dr Roger Traill
Ms Pandora Tse

Tamworth Base Hospital, NEAHS

Mrs Chris Coombs
Ms Felicity Dundon
Ms Beverly Green
Mrs Mary Wilcox

Liverpool Hospital, SWSAHS

Ms Ros Berryman
Dr David Crooke
Ms Judy Dwyer
Ms Anneke Fitzgerald
Dr Martin Lum
Ms Sue Whitby

Hornsby Hospital, NSAHS

Ms Fiona Allsop
Ms Sue Collins
Dr Brett Gardiner
Ms Angie Minards

St George Hospital, SESAHS

Ms Deborah Cansdell
Dr Denis King
Ms Liz Maher
Dr Pauline Paton
Ms Wendy Stone

Central Sydney Area Health

Ms Joan Englert

Director, Health System Performance Branch, NSW Health

Mr Robert Lagaida

Manager, Clinical Strategy, NSW Health

Mr Toby Mathieson

Acting Deputy Chief Information Officer, NSW Health

Dr Paul Tridgell

Manager, Quality Performance Unit

Ms Joanne Young

Project Officer

Ms Vijay Naidoo
Senior Performance Analyst, NSW Health