2006

PARLIAMENT OF TASMANIA

AUDITOR-GENERAL
SPECIAL REPORT No. 61

ELECTIVE SURGERY IN PUBLIC HOSPITALS

August 2006

Presented to both Houses of Parliament in accordance with the provisions of Section 57 of the Financial Management and Audit Act 1990

By Authority:

Government Printer, Tasmania

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This report is printed on recycled paper.

ISBN 0 9756781 8 3

29 August 2006

President
Legislative Council
HOBART

Speaker
House of Assembly
HOBART

Dear Mr President
Dear Mr Speaker

SPECIAL REPORT NO. 61

Elective surgery in public hospitals

This report has been prepared consequent to examinations conducted under section 44 of the *Financial Management and Audit Act 1990*, for submission to Parliament under the provisions of section 57 of the Act.

Performance audits seek to provide Parliament with assessments of the effectiveness and efficiency of public sector programs and activities, thereby identifying opportunities for improved performance.

Yours sincerely

H M Blake
AUDITOR-GENERAL

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Foreword

Unlike emergency surgery, elective surgery is planned and can usually be delayed beyond 24 hours. Patients requiring elective surgery are assessed and their access to surgery is categorised by specialists who base their clinical decision on many factors, according to the individual case.

One of the key goals of Tasmania *Together* is 'improving the health and well being of the Tasmanian community through the delivery of coordinated services.' This Report, in examining elective surgery in Tasmanian public hospitals, looks at whether progress is being made toward achieving this goal.

In recent years there has been much public debate and numerous reports written on the state of elective surgery in our public hospitals. A great deal of this discussion has focussed on the length of elective surgery waiting lists. One key question that this Report examines is whether waiting times and the data upon which they are determined is reasonable.

The Report looks at elective surgery data on a statewide, hospital and speciality basis. The audit also considered potential resource-related bottlenecks, such as operating theatres, theatre nurses, specialists, anaesthetists and equipment.

Our results, based on data supplied, hospital visitations and interviews with hospital and departmental staff, identified a number of areas where management of elective surgery could be improved. We made several recommendations, including the need for better use of existing operating theatres and improving the quality and usability of reported information. We were able to show that overall waiting times were not excessive, though there was some variation for individual hospitals and specialities.

H M Blake

Auditor-General

August 2006

List of acronyms and abbreviations

CEO	Chief Executive Officer
DHHS or department	Department of Health and Human Services
ENT	Ear nose and throat
ESMIS	Elective surgery management information system
GP	General Practitioner
FTE	Full time equivalent
HOMER	Hospital information management system
LGH	Launceston General Hospital
Mersey	Mersey campus of the NWRH located at Latrobe
NWRH	North West Regional Hospital
RHH	Royal Hobart Hospital
TAO	Tasmanian Audit Office
VMO	Visiting medical officer

Glossary

Admission	Administrative and physical check-in at hospital when patient arrives for surgery
Casemix	A variety of surgical procedures that a specialty may entail
Casemix-adjusted separations	The number of separations adjusted to account for differences in the complexity of episodes of care
Consultant	A medical or surgical specialist to which patients are referred by another medical practitioner
Registrar	A doctor in a hospital next below a consultant, who is training to be a specialist
Resident	A doctor who has completed medical school and an internship and is in the process of receiving specialised training
Separation	An episode of care that is a hospital stay
Specialist	A medical practitioner with advanced qualifications in a nominated field of medicine, usually acting as a consultant
Specialty	One of the 19 areas of surgical practice within the Australian College of Surgeons
Surgeon	A medical practitioner who has undertaken postgraduate studies to specialise in surgery
Surgery	The art, practice, or work of treating diseases, injuries, or deformities by manual operation or instrumental appliances, especially by incision into the body
Unweighted cases	Indicates volume of cases without adjustment for complexity

Executive summary

Executive summary

Governments in general face challenges in managing elective surgery waiting lists and waiting times. Surgery can be either emergency or elective with the latter being defined as planned surgery for which, in the opinion of the treating specialist, admission can be delayed for at least 24 hours.

Elective surgery in the public system is largely confined to Tasmania's major public hospitals:

- Royal Hobart Hospital (RHH)
- Launceston General Hospital (LGH)
- Northwest Regional Hospital (NWRH).

Organisationally, these hospitals are part of the Department of Health and Human Services (DHHS).

In this audit we examined the management of elective surgery at these three public hospitals. Our objectives were to:

- examine the effectiveness and efficiency of the management of elective surgery by Tasmanian public sector hospitals
- assess whether management has set appropriate objectives, strategies, standards, and performance indicators
- assess the adequacy of measurement and reporting systems.

Audit opinion

Effectiveness

Specialists allocate elective surgery patients into one of three categories based on urgency of treatment. We found that:

- On average, patients in the more urgent categories could expect to wait longer than national benchmarks.
- On average, waiting times for Category 3 (least urgent category) cases were within national benchmarks and were improving.
- Published comparisons with national data were unreliable because of inconsistent priority categorisation and other problems.

Comparing hospitals, we found that RHH waiting times exceeded the national benchmarks and were high compared to other

Tasmanian hospitals. One reason for this is that it receives the more difficult cases from other hospitals.

We also reviewed the performance of 13 predominant specialities and found that expected waiting times were under the benchmark for seven specialities, while six exceeded the benchmark.

In summary, we concluded that there is scope for improved effectiveness.

Efficiency

From an efficiency standpoint, we looked at a number of indicators and found that Tasmanian costs per operation had declined and that recurrent expenditure per person was lower in Tasmania than the average of other jurisdictions.

On the other hand, hospital theatres were operating well below their practical capacity. There was little evidence of bottlenecks with general nurses, specialists, anaesthetists or equipment. We were unable to conclude whether or not there was a shortage of theatre nurses or beds, although there were some indications that this could be the case.

Overall, we concluded that there is scope for efficiency to be improved.

Waiting list accuracy, measurement and reporting

We identified a number of factors that adversely impacted on the accuracy of waiting lists. We concluded that waiting lists were understated, however, it was not possible to quantify the impact of inaccuracies on the waiting list.

We also found that management information was inadequate to form a basis for decision-making about acquisition and efficient use of resources, such as operating theatres and hospital staff.

Objectives, strategies and performance indicators

Strategic plans existed and addressed appropriate issues for the hospitals as a whole but there was scope to develop strategic plans for some individual hospitals.

Published performance information in annual reports and on websites was unsatisfactory.

Recommendations

We made 27 recommendations aimed at improving the efficiency and effectiveness of elective surgery in our public hospitals. In the main these recommendations were aimed at:

- improving management information about elective surgery
- improving the consistency and accuracy of priority classification of elective surgery patients
- consideration of strategies to achieve productivity gains
- improving management information about resources
- better knowledge about, and therefore management of, staff and specialist numbers
- improved availability and quality of public information.

Recommendations and management response

Recommendations and management response

List of recommendations

The following table reproduces the recommendations contained in the body of this report.

Rec No	Report section	Recommendation
1	2.4	The department should review user documentation and training methods to ensure operators are able to accurately and consistently perform data input across all campuses.
2	2.5	DHHS should ensure that HOMER's replacement incorporates sophisticated and flexible data management that would also support national reporting.
3	3.2.2	The department should actively promote consistent and accurate priority classification information to HOMER to facilitate better decision-making and reporting.
4	5.1.2.2	Management should set benchmarks for theatre usage and regularly assess performance against those benchmarks. Decisions about resources should take into account such assessments.
5	5.1.2.3	Hospitals should record the reason for any downtime in operating theatres. Management should regularly review summary data as a basis for decisions about resource acquisition and allocation.
6	5.1.3.1	Hospitals should ensure that postponed patients are immediately reinstated on the waiting list.
7	5.1.3.2	DHHS should ensure that adequate resources are available to efficiently operate current and planned operating theatres.
8	5.1.3.4	Hospitals should record the underlying reasons for postponements and cancellations to enable efficiency gains to be made.
9	5.1.4.1	Relevant recommendations from the *Perioperative Services Review Project* at the RHH should be considered for implementation at the LGH and NWRH.
10	5.1.4.2	The department or hospitals should consider strategies to reduce loss of productivity from postponement of surgery where that surgery would over run scheduled theatre time.

11	5.2.2	Hospitals should periodically record sufficient information about nursing numbers and vacancies to enable management to conduct longitudinal performance analysis.
12	5.2.3	Benchmarking of operating theatre nurses should be completed as a matter of urgency to provide a basis for determining appropriate staffing levels.
13	5.2.4	To help secure new employees, LGH and NWRH should also consider recruiting nurses in anticipation of an actual vacancy.
14	5.2.4	DHHS should work with universities through graduate programs and other projects to develop pathways and experiences leading to an increased number of appropriately trained theatre nurses. DHHS should explore the possibility of providing more in-house training in theatre nursing.
15	5.2.4	Hospitals should consider alternate workplace staffing to perform some nursing duties in operating theatres.
16	5.2.4	Hospitals should look to maximise the flexibility of rostering arrangements and employment conditions. Hospitals should consider the introduction of earlier start times and/or night theatre sessions.
17	5.2.4	Hospitals should introduce forward planning for theatre nursing staff.
18	5.2.5	Hospitals should continue to develop HR strategies such as training (e.g. fees assistance, bonding of graduates, management training) or bonuses linked to high output to strengthen nurse retention.
19	5.2.6	DHHS should develop and implement an agency-wide exit interview policy for nurses.
20	5.3.2	Hospitals should periodically record sufficient information about specialist and anaesthetist numbers and vacancies to enable management to conduct longitudinal performance analysis.
21	5.3.4	Adequate volume and casemix to maintain accreditation should be one factor considered when scheduling operating theatre time.
22	5.3.5	DHHS should develop and implement an agency-wide exit interview policy for surgical specialists.

23	5.5.3	DHHS should review the equipment acquisition process between the initial time of approval by the CRC and completion of the tendering.
24	5.5.4	Replacement of theatre equipment should be managed to avoid long-term problems.
25	6.1.2	All hospitals should develop strategic plans for elective surgery. Any plan developed should link back to the overall departmental strategic plan.
26	6.2.1	DHHS should publish quantitative data in the annual report and website about patients still on the waiting list and the length of time they could expect to wait.
27	6.2.1	DHHS should consider expanding the type and timeliness of information about elective surgery available on its website.

Management response

The Department of Health and Human Services welcomes the Auditor-General's Performance Audit "Elective Surgery in Public Hospitals". The Report highlights some of the key factors and complexities inherent in the provision of elective surgery in public hospitals and the difficulty in meeting public expectations in this area. In general the recommendations made by the Auditor-General will complement the range of initiatives already in place aimed at ensuring the Tasmanian public has good access to elective surgery services and that waiting times are clinically appropriate.

Under the Australian Health Care Agreement hospitals are expected to treat patients on the basis of their clinical need and within a clinically appropriate period. At the same time public hospitals are required to provide services within the financial resources that have been allocated. Hospital managers and clinicians are therefore continually making decisions about how to provide services and prioritise care in an environment where there can be limitations at any one time on the availability of human, physical and financial resources.

Public hospitals operate in an environment where there is fierce competition to recruit and retain specialist staff and the decisions of professional colleges and universities act to regulate the pool of staff available for recruitment in Australia. Similarly, factors such as policy decisions made at national and state levels, and competition from the private sector affect the staffing resources available and the level and type of demand for elective surgery in public hospitals.

Elective surgery is only one of a wide range of health services provided to the Tasmanian community and accounts for about 15% of all hospital admitted patient activity. There is a need to balance elective surgery services with other demands including emergency and urgent medical treatment where patients require treatment within a very short timeframe.

The demand for acute services continues to increase. During the past five years admitted patient separations have increased by 20%, department of emergency medicine presentations increased by 37% and ambulance responses increased by 32%.

It is pleasing that the Audit has found that the process for reporting of elective surgery performance at hospital, state and national levels is reliable and that the data is generally accurate. The finding that waiting times in Tasmania are compliant with national benchmarks and that comparisons with other jurisdictions are of limited value is also noted.

Management of elective surgery services is a key priority for the Acute Health Services Group of the Department of Health and Human Services. Government initiatives under the Better Hospitals Funding Packages have been implemented in 2003-04 and 2004-05 and a number of these are designed to increase the elective surgery capacity of our hospitals. There are also initiatives in the 2006-07 budget that aim to further increase service capacity.

There are other specific strategies in place, which aim to ensure that elective surgery is efficient and effective and that patients do not have to wait for excessive periods of time for surgery.

- An elective surgery action plan was developed and is regularly reviewed by the Acute Health Services Group Executive.
- The statewide policy and guidelines for management of elective surgery have been reviewed and promulgated in each hospital. Specific guidelines on management of postponements have been developed and implemented.
- A policy on excluded procedures (procedures that will not be offered in the public hospital sector) is under development.
- Targets have been established to reduce waiting times and the number of patients with extended waiting times. These are reviewed by the Acute Health Services Group Executive on a monthly basis.
- Continuation of the Elective Surgery Priority Plan at the Launceston General Hospital enables the provision of additional elective theatre sessions.

- Elective Surgery Priority Plan funds have also been allocated to enable a re-engineering of the business and management processes in theatres at the RHH. The outcomes of the review are now being implemented.
- Options to provide general practitioners with information on waiting times for elective surgery have been identified.

There has been improvement in waiting times for elective surgery during the past two years. The median waiting time for patients admitted from the elective surgery list decreased from 42 days in 2003-04 to 34 days in 2004-05 and this has been maintained at 34 days in 2005-06. There has been considerable focus on long wait patients and there has been a noticeable decrease in some areas during 2005-06. The number of patients admitted from the elective surgery waiting list has increased by 16% since 2001-02.

The comments in the report questioning the need for additional theatres at the Royal Hobart Hospital are noted. While the RHH will always strive to ensure the existing theatres are utilised as efficiently as possible there is always a need to plan for the future and with an ageing population and increasing prevalence of chronic disease the decision to add two theatres was taken in this light.

The Acute Health Services Group will consider the Report and its findings and recommendations in detail as this will assist in service improvement particularly in the area of elective surgery. This will be undertaken within the context of the recently announced ***fit*** Program an important initiative, which aims to establish new approaches to the management of the Department and our workforce.

In conclusion, it is pleasing to see the role of the wide range of staff involved in the delivery of elective surgery highlighted. The skill and commitment of the medical, nursing, allied health and other support staff who contribute to the provision of high quality services is recognised and appreciated.

The Department will continue to work to ensure that all aspects of elective surgery are managed effectively to ensure the best outcomes for all Tasmanian people requiring access to these services.

Introduction

Introduction

Background

Tasmania has a population of 484 000[1], of whom 280 000 do not have private health insurance and rely on elective surgery services delivered by the public system. The remaining 204 000[2] (or 42% of the population) have the choice to access elective surgery through the private health system.

Surgery can be either emergency or elective with the latter being defined as planned surgery for which, in the opinion of the treating specialist, admission can be delayed for at least 24 hours.

Elective surgery in the public system is largely confined to Tasmania's major public hospitals:

- Royal Hobart Hospital (RHH)
  - is based in Hobart and is the main medical teaching hospital with the University of Tasmania having its Medical School co-located. The RHH is a large tertiary facility with over 500 beds. It offers the greatest number of specialities including centralised cardio-thoracic and neurosurgery.
- Launceston General Hospital (LGH)
  - is the main public hospital in the north of the state with around 300 beds and offers many surgical specialities. It relocated into a new purpose-built facility in the 1980s. The LGH acts as the state's main training hospital for nurses with the University of Tasmania's School of Nursing and Midwifery located at Launceston.
- Northwest Regional Hospital (NWRH)
  - currently consists of two campuses: Burnie and Mersey (sited at Latrobe). Burnie is a160-bed leased facility on a government-owned site. It offers a limited number of specialities and is also the main administrative centre for NWRH. The Mersey campus has around 90 acute care beds and was originally government operated until 1995. At that time, it was leased to a private sector provider but in 2004 government resumed control after

[1] Australian Bureau of Statistics, December 2004, *Australian Demographic Statistics*, Canberra.
[2] Private Health Insurance Commission, June 2005, *Membership Statistics,* Canberra.

public pressure due to threatened downscaling of services.

Organisationally, these hospitals are part of the Department of Health and Human Services (DHHS).

Demand for elective surgery outstrips supply with long waiting lists becoming significant public and political concerns. This situation is not unique to Tasmania, with delays experienced elsewhere within Australia.

Public expectations have played a role in extending waiting lists with:

- patients expecting procedures not previously available, such as cosmetic surgery
- complex operations (such as knee and hip replacements, stents) becoming routine and less intimidating further fuelling demand
- patients anticipating that surgery would be provided even though other treatment options might be preferable.

Objective

The audit objectives were to:

- examine the efficiency and effectiveness of the management of elective surgery by Tasmanian public sector hospitals
- assess whether management has set appropriate objectives, strategies, standards, and performance indicators
- assess the adequacy of measurement and reporting systems.

Scope

The scope of the audit was limited to:

- public hospitals and DHHS
- data since 2000.

The audit did not include surgical procedures carried out in small district hospitals.

Criteria

We applied the following audit criteria:

- was waiting list data accurate?
- were waiting times reasonable at a

  - statewide and hospital level?
  - specialty level?
- were hospital resources efficient and effective?
- did appropriate strategies and performance indicators exist to manage the elective surgery process?

Audit methodology

The audit included:

- review of existing waiting lists, waiting times and other relevant information systems
- examination of existing policies, procedures and practices within DHHS and hospitals
- limited testing of accuracy of reported information
- interviews and discussions with staff, patients and other stakeholders
- review of reported information.

Stakeholder input

In line with the TAO's established practice for the conduct of performance audits, an advisory committee was convened to reflect stakeholder views. The Auditor-General chaired the committee with members representing:

- Divisional Support Unit—DHHS
- RHH theatre management
- Specialists
- Tasmanian Audit Office.

The committee provided input to the audit's methodology and reviewed the draft report upon its completion. Nevertheless, the views expressed in this report are those of the Auditor-General, and are not necessarily shared by other members of the committee.

Timing

The audit commenced in October 2005 and concluded in June 2006.

Resources

The total cost of the audit excluding report production costs was approximately $260 000.

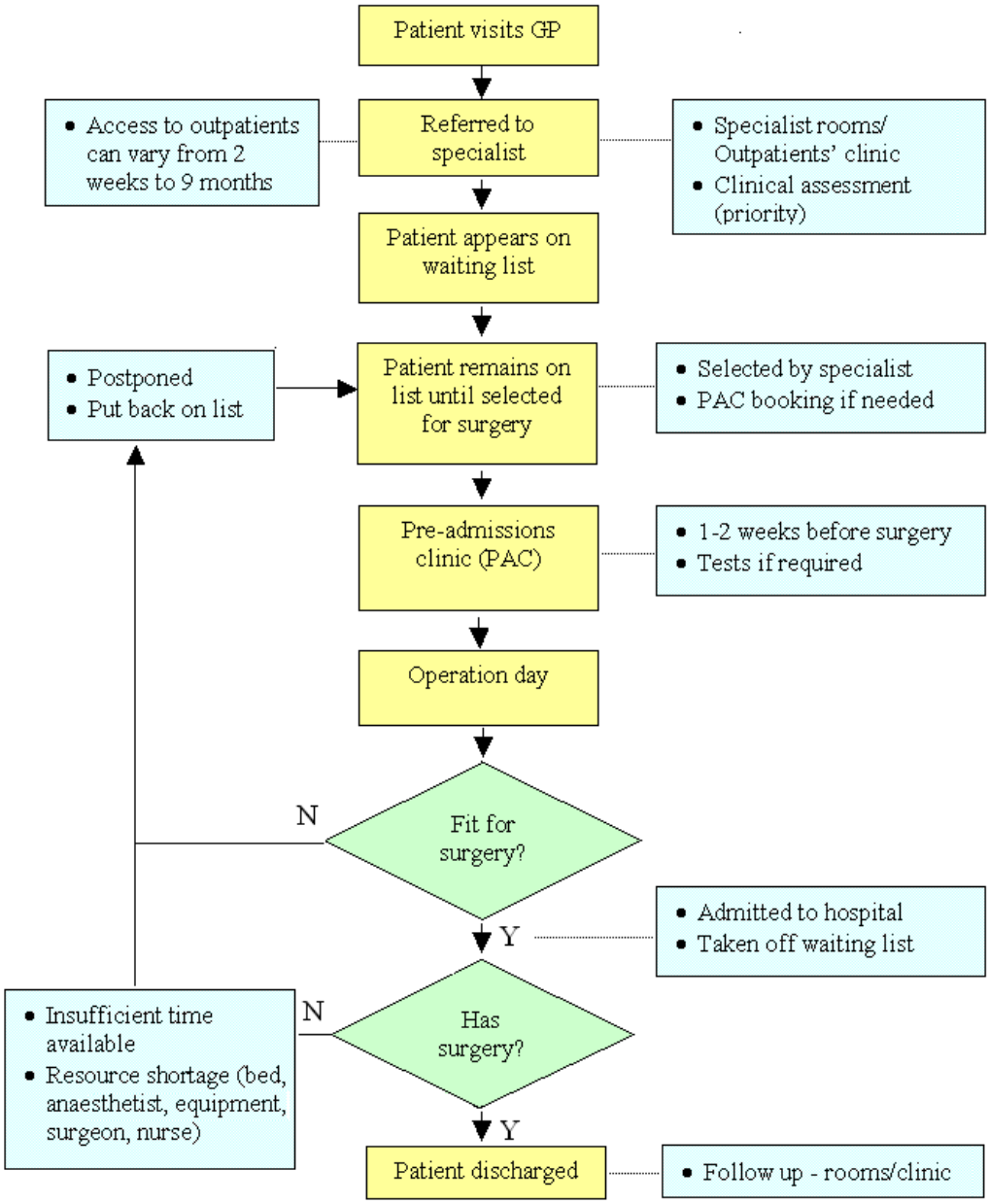
1 Elective surgery processes

1 Elective surgery processes

1.1 Processing of patients

The typical process a public patient follows to have elective surgery is outlined in Figure 1.

Figure 1: System flowchart for elective surgery public hospital patients



1.2 Prioritising of patients

To determine priorities for access to elective surgery services, specialists prioritise patients using a three-tiered national system[3]:

- Category 1: Admission within 30 days desirable for a condition that has the potential to deteriorate quickly to the point that it may become an emergency.
- Category 2: Admission within 90 days desirable for a condition causing some pain, dysfunction or disability but which is not likely to deteriorate quickly or become an emergency.
- Category 3: Admission at some time in the future[4] acceptable for a condition causing minimal or no pain, dysfunction or disability and is unlikely to deteriorate quickly and which does not have the potential to become an emergency.

Tasmania in common with other states has developed some minor variations within the above categories.

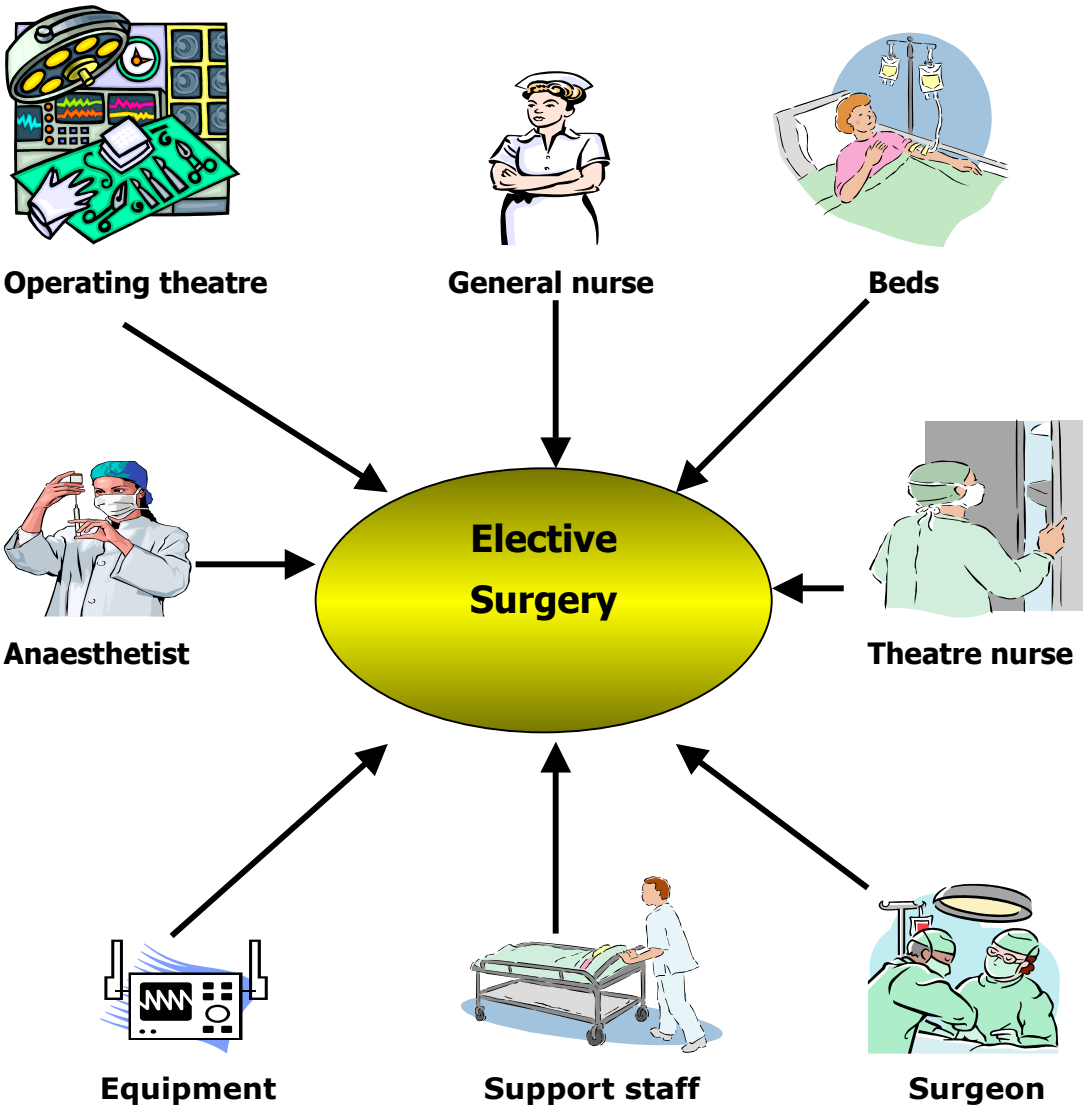
Specialists select patients from their own or pooled waiting lists based on priority, depending on the particular surgery required (complexity, length of procedure, training needs), availability of clinical staff, theatre use and individual hospital's policies and procedures.

1.3 Coordination of resources

In order for a patient to receive elective surgery, a number of resources must be available as is illustrated in Figure 2.

[3] Australian Institute of Health and Welfare, 2006, *National Health Data Dictionary, Version 12*, Canberra.
[4] For comparative purposes, Category 3 is regarded as a desirable 365-day threshold.

Figure 2: Resources that support elective surgery



Ensuring efficient use of operating theatres calls for coordination of inter-related factors such as:

- staff (surgeons, anaesthetists and nurses)
- resources (operating theatres and specialised equipment)
- ensuring equitable access to operating theatre time by surgeons from all medical specialties
- suitable beds (surgical or high dependency) for post-operative patients
- support staff (orderlies, cleaners, hospital aides).

1.4 Managing long-term health issues

Increasingly, preventable health conditions that may in the long-term boost demand for elective surgery could be mitigated through individuals making healthier life style choices (e.g. controlling weight, exercise, better nutrition, reducing alcohol intakes, stopping smoking etc.). There are problems of co-morbidities for some patients that make their treatment more difficult than it would otherwise be. The federal Treasury has recognised that health education and prevention programs have the potential to:

- increase workforce participation rates
- make savings in the health budget.

For instance, it has been estimated that the spending of $176 million on tobacco awareness programs over the last 30 years has created benefits of $8.6 billion[5].

The department had a prevention strategy that works on three levels:

- Primary prevention such as legislative reform, policy development and fiscal strategies aims at improving whole-of-population health e.g. Tasmania's initiatives to curb smoking.
- Secondary prevention seeks to reduce progression of disease by early detection and early intervention e.g. breast screening and pap smears.
- Tertiary prevention aims to lessen the impact of established disease and prevent complications through effective management and rehabilitation e.g. physiotherapy.

A possible direction for future funding is greater connection between prevention programs and funds allocated to specialties.

[5] Applied Economics, Commonwealth Department of Health and Ageing, 2003, *Returns on Investments in Public Health: an epidemiological and economic analysis*, Canberra.

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2 Accuracy of hospital waiting lists

2 Accuracy of hospital waiting lists

2.1 Background

To conduct our audit we relied on data supplied by the department that amalgamated information from each of the major hospitals.

All hospitals have a management information system (HOMER) that is used for all facets of hospital administration. Within HOMER, there are discrete modules for various hospital activities, such as elective surgery. The system operates independently at each of the four campuses of the major public hospitals in Tasmania.

When a specialist diagnoses a person as requiring surgery, and assigns a clinical category, an admission form is completed and sent to the relevant hospital. Details from that form are entered into HOMER and at that point, the patient appears on the waiting list. Any preceding time spent before seeing a specialist is not part of the waiting list record.

Management uses a separate system (ESMIS) that accesses HOMER monthly, providing a point-in-time record. Unlike HOMER, ESMIS conforms to national reporting guidelines and provides a consistent picture of the public health system in Tasmania.

In the following subsections, we discuss findings relating to the reliability of waiting list data, including:

- patients not being included on waiting lists because of delays in obtaining an initial consultation at outpatient clinics
- difficulty reconciling the prior period waiting list to the current list
- incomplete or inaccurate admission forms
- perceived regional differences in interpretation of data.

2.2 Delays in initial consultation

The delay in obtaining a specialist's appointment at an outpatient clinic is not measured as part of the elective surgery waiting time; in effect, waiting to go on the waiting list. Our observation was that those initial consultations would usually be made within a span of one to ten weeks. There were some specialties where much longer waits applied to new cases and we noted one example of 48 weeks. However, hospitals publish information on anticipated waiting times for new cases for each specialist. In that way, GPs can help patients exercise choice in selecting a specialist. It should also be noted that

patients with life-threatening conditions are fast-tracked through outpatient clinics.

2.3 Reconciliation problems

As discussed, we relied on ESMIS data that amalgamated hospital information. We attempted to reconcile the waiting list from month to month by recognising additions and removals but were unable to do so. The department indicated the lists would not reconcile because of:

- patient status changing between ready for care and not ready for care
- incorrect referrals on waiting list (e.g. medical cases that are not elective surgery).

Moreover, HOMER adjusts patient records in line with the progression of a patient's treatment or discharge. The contrast between static ESMIS data and dynamic HOMER data made a complete reconciliation impossible.

However, based on our audit of the information systems, we were satisfied that the process of data extraction of the waiting list information from HOMER to ESMIS was reliable.

2.4 Hospital data input—accuracy

A number of factors influenced accuracy of hospital waiting list data including:

- delayed input of admission forms artificially understating waiting list data
- postponed patients not being reinstated on the waiting list in a timely manner
- staff incorrectly entering data (e.g. not removing admitted patients from the waiting lists)
- lack of confidence in using data from other hospitals.

Incomplete or inaccurate admission forms also affected the accuracy of waiting list data. As an example, at NWRH Burnie we found some problems with specialists failing to indicate patients' category on booking forms (approximately 10%). Consequently, administrative staff entered these bookings as Category 3, which distorted hospital statistics. However, patient selection for surgery was not affected because specialists prepare and prioritise their own theatre listings.

Although a replacement plan for HOMER was underway, it will continue to function for quite some time. However, we were

advised of deficiencies in user documentation and training of operators.

Recommendation 1

The department should review user documentation and training methods to ensure operators are able to accurately and consistently perform data input across all campuses.

2.5 System limitations with HOMER

A major difficulty imposed by HOMER is the way that data is captured and reported. Due to its age, much of the system documentation and knowledge has been lost with the result that many workarounds have been developed to meet the needs of contemporary hospital management. Data gathering is sometimes based on manual collection and collation that is time consuming and inflexible compared to computer-based records.

Reporting at a hospital and state level is restricted by the system limitations inherent in HOMER. As its replacement is presently being developed, there is an urgent need for the specifications of the proposed new system to incorporate information that supports contemporary hospital practices and capabilities for national reporting.

Recommendation 2

DHHS should ensure that HOMER's replacement incorporates sophisticated and flexible data management that would also support national reporting.

2.6 Conclusion

Many factors affect the accuracy of waiting lists. It appears likely that waiting lists would be larger if all of the abovementioned concerns could be addressed, but it was not possible to quantify the impact of inaccuracies on the waiting list. We also believe it likely that those factors have been consistently present over time, and that comparisons between periods are valid.

3 Overall performance

3 Overall performance

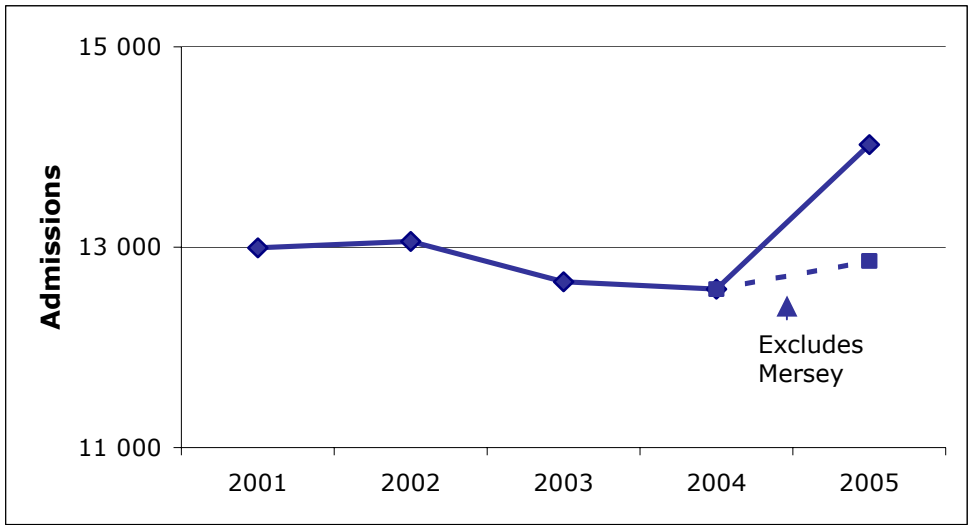
3.1 Output of elective surgery

3.1.1 Performance since 2000

We considered the trends in admissions from the waiting list as a measure of the supply of elective surgery over time (Figure 3). The supply of surgery increased markedly in December 2004 when the Mersey campus of the NWRH returned to the public system. To compensate for this we have added a modified graph line to Figure 3 to adjust for the effect on elective surgery numbers caused by Mersey's re-entry.

Before that time, there had been a decline in the supply of surgery over two years. Raw numbers such as these do not consider complexity or acuity of the surgery provided (one operation may take one hour, another eight hours) but is a useful measure of effectiveness when compared to the waiting list.

Figure 3: Admissions from waiting lists 2001-05*



*Unless otherwise stated in this Report, source data supplied by the department

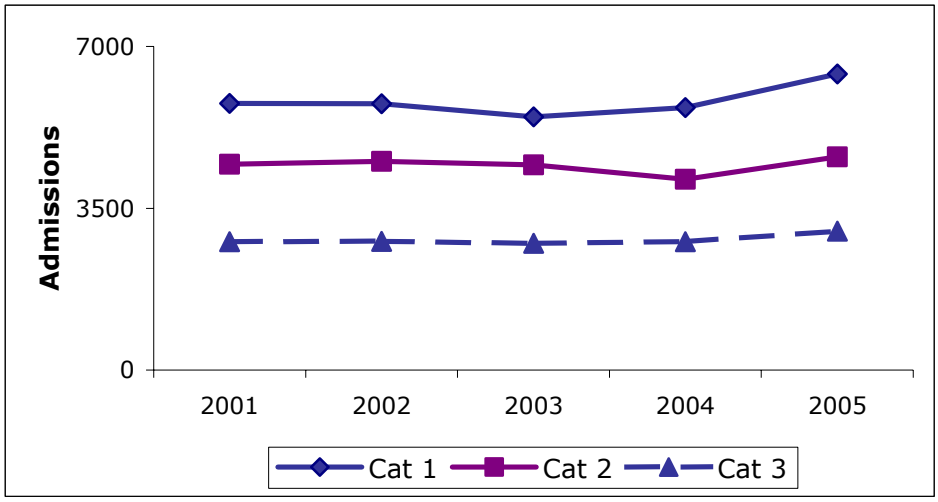
Notwithstanding Mersey's return, the decline noted between 2003 and 2004 has been arrested with elective admissions now on a modest upward trend that is most likely attributable to increasing resources (see Chapter 5).

3.1.2 By category

When we examined data between 2001 and 2005 by urgency categories, we found a similar pattern to the overall trends reported in section 3.1.1. Category 1 cases dipped in 2003-04 but recovered and are now higher than in 2001. This may reflect a greater emphasis

at a hospital level in treating Category 1 patients or it may represent different approaches to categorisation: Figure 4 shows this movement.

Figure 4: Admissions by category: 2001-05



3.2 Reasonableness of waiting times

3.2.1 Overall performance

Examining the waiting list will indicate how long patients have been on the list but it will not show how long they will continue to wait. Instead, we used a method that provided an estimate of total waiting time (i.e. time already waited plus expected remaining time before surgery).

We calculated expected waiting times using the rate of removals and the balance of patients ready for care. We then compared the waiting times with a calculated benchmark[6] based on national standards for waiting times for the various categories (i.e. 30, 90 and 365 days). It is important to note that we are actually comparing average times with benchmarks that represent the upper limits for desired treatment. So, an expected waiting time that is less than the benchmark still allows the possibility that care of some patients will not meet that standard since there can be substantial variation of individual waiting times. Nonetheless, we believe that expected waiting times are a reasonable guide to performance assessment.

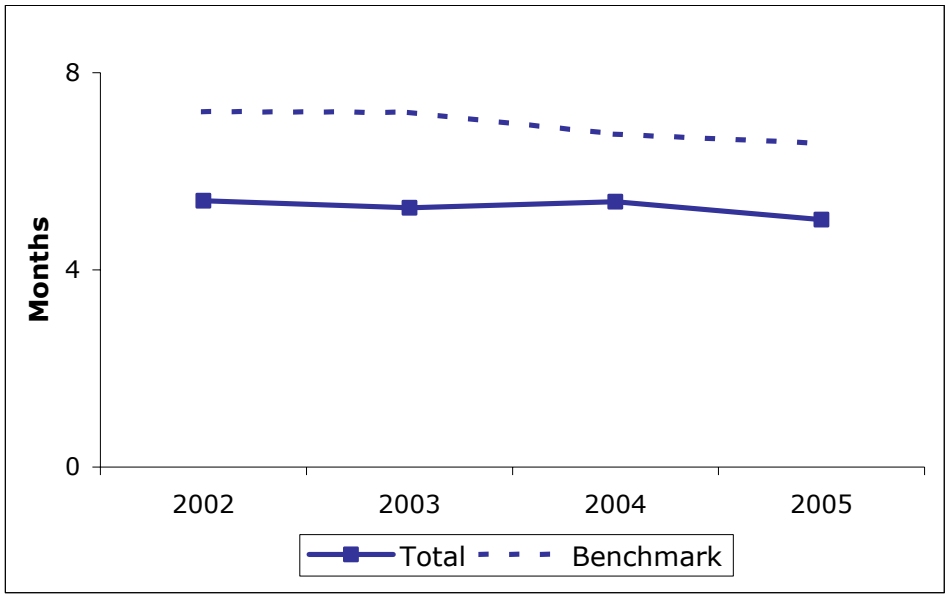
While all the people on the waiting list are considered to be ready for care and have been categorised by priority they may in effect be 'queue jumped' as more urgent patients are added. Being on the

[6] Weighted average benchmark: (No. of Cat 1 patients x Cat 1 benchmark) + (No. of Cat 2 patients x Cat 2 benchmark) + (No. of Cat 3 patients x Cat 3 benchmark)/ total no. on waiting list.
An example is neurosurgery: ((40 x 1 month)+(194 x 3 months)+(10 x 12 months))/244 = 3.04 months

waiting list is not like a delicatessen line where patients can be certain of their place in the queue.

In Figure 5 actual performance is compared to the benchmark between 2002 and 2005.

Figure 5: Expected waiting times against benchmark 2002-05



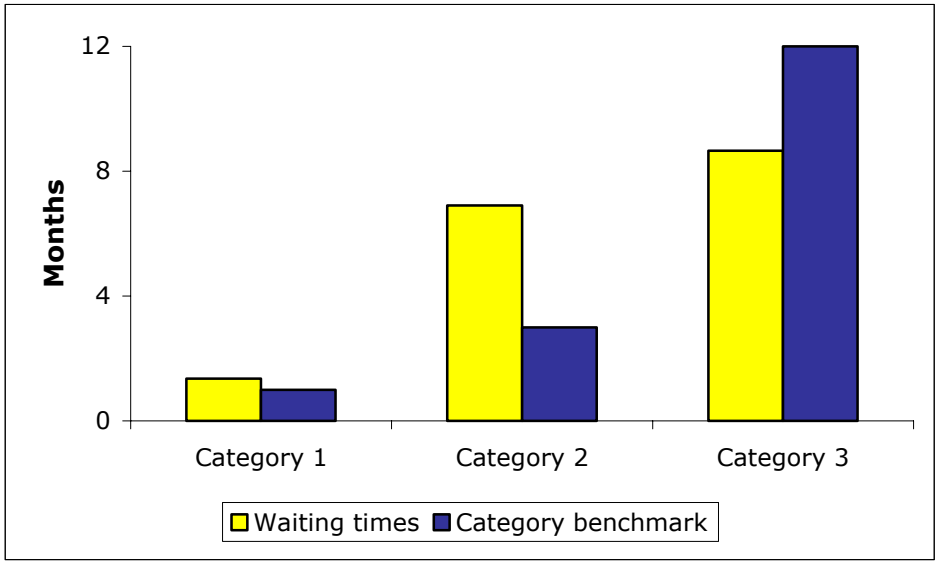
Over the period reviewed in Figure 5, the amalgamated data reveals that the waiting times have neither improved nor deteriorated to any significant extent. The average expected waiting time for people on elective surgery lists has remained better than the calculated benchmark. However, this satisfactory result needs to be seen in the context of section 3.2.2, which further analyses by priority category.

3.2.2 Performance by category

National clinical guidelines dictate the benchmarks for the three patient categories. As outlined in the Introduction to this Report, it is desirable that Category 1 patients should be treated within 30 days, Category 2 patients within 90 days and Category 3 patients within one year. We calculated the amount of time that a patient on the waiting list would expect to wait based on current performance.

Figure 6 indicates the situation as at June 2005. Category 1 and Category 2 patients could expect to wait more than the desired clinical timeframe. Category 3 patients can expect to wait less than 12 months before being removed from the list.

Figure 6: Expected waiting times to benchmark by category at June 2005



Our expectation was that hospitals would give similar emphasis to achieving the benchmarks for all three categories. At first glance, the better results for Category 3 compared to the other categories might appear to indicate ineffective prioritisation. However, the seemingly good performance for Category 3 patients does not necessarily indicate surgery since removal from the waiting list may be due to a patient's:

- admission as an emergency
- transfer to another specialist's list
- reassessment as operation no longer required
- death
- having the operation performed elsewhere
- not being contactable when reviewed.

Table 1 reports data for removal from the waiting list between 2001 and 2005.

Table 1: Removal statistics 2001 to 2005

	Cat 1	Cat 2	Cat 3
Admitted to hospital	92%	81%	72%
Removed for another reason	8%	19%	28%

Anticipated waiting time is also affected by the rate at which additions are made to the list. Since 2001, Category 1 additions have increased at three times the rate of Category 3 as noted below:

- Category 1 has increased 16%
- Category 2 by 12%
- Category 3 by 5%.

The data has been skewed slightly by the re-instatement of the Mersey campus of NWRH to the public system in December 2004 since its data was previously omitted from waiting list reporting. The slower rate of additions of Category 3, and the consistent supply level noted in Figure 4 mean that removals were outstripping additions.

The relative decline in Category 3 patients may be explained by:

- delays in obtaining an initial consultation at outpatient clinics. For example, waiting times in December 2005 were between one and 48 weeks, with some specialists refusing new cases
- patients choosing not to be included on the waiting list because of awareness of lengthy delays
- surgeons misusing the categorisation system in order to improve patients' chances of surgery. There was some anecdotal evidence that this had occurred. The relative increase of Category 1 and 2 patients over Category 3 may also indicate surgeons promoting Category 3 patients to give them a better chance at treatment.

Our analysis showed that on average a proportion of Category 1 and 2 patients could expect to wait longer than the desirable treatment periods (i.e. 30 or 90 days respectively). Demand from both categories increased by more than 10% since 2001. Category 3 expected average waiting times appear to be better than the benchmark. However, such an interpretation may be misleading as other factors affect the number of new additions to the list. Individual waiting times for patients will vary depending on the hospital and specialty (see Figure 10).

Recommendation 3

The department should actively promote consistent and accurate priority classification information to HOMER to facilitate better decision-making and reporting.

3.3 Comparisons to national data

Table 2 compares Tasmanian waiting times for elective surgery with the national average using information published by the Australian Institute of Health and Welfare.

Table 2: Elective surgery waiting times 2004-05[7]

	Tas	Aust
Number of days waited at:		
50th percentile	34	29
90th percentile	352	217
Proportion who waited more than 365 days (%)	9.5	4.8

From Table 2 it is clear that Tasmanian patients waited longer than their interstate counterparts. However, we noted that each of the waiting time statistics reported in Table 2 showed better outcomes than the previous reporting year.

The recently published *State of Our Public Hospitals June 2006 Report*[8] showed similar performance for Tasmania when compared to national averages, as detailed in Table 3.

Table 3: Admissions within recommended time 2004-05

	Tas	Aust
Percentage of all admissions seen within the recommended time	66%	82%

Inter-jurisdictional comparisons indicated that Tasmanian hospitals were performing poorly in terms of waiting times, yet in section 3.2.1 we found that on average Tasmania was well within national benchmarks. We believe the reasons for this apparent disparity included:

- Urgency categorisation is subjective (clinical assessment) and has a major impact on comparisons with benchmarks. The *Report on Government Services 2006* noted that clinicians have systematically different approaches to categorisation by urgency and that:

> … states and territories with lower proportions of patients in Category 1 were also the states and

[7] Australian Institute of Health and Welfare, 2006, *Australian hospital statistics 2004-05*, Canberra.
[8] Australian Government Department of Health and Aging, 2006, *The state of public hospitals June 2006,* Canberra.

territories that had relatively smaller proportions of patients in this category that were 'not seen on time'.[9]

- The above tables focus on patients that have had excessively long waits for elective surgery. Whilst in our opinion Tasmania's performance is satisfactory on average, there are particular specialities where benchmark waiting times were substantially exceeded, e.g. ophthalmology.
- The method we used to calculate waiting times was based on the recent rate of removals from the list. By contrast, the above comparative data focused on how long patients have waited for surgery and thus reflected past performance rather than current expectations. This is an important difference since the rate of removals in Tasmania since July 2004 was appreciably improved on prior years.

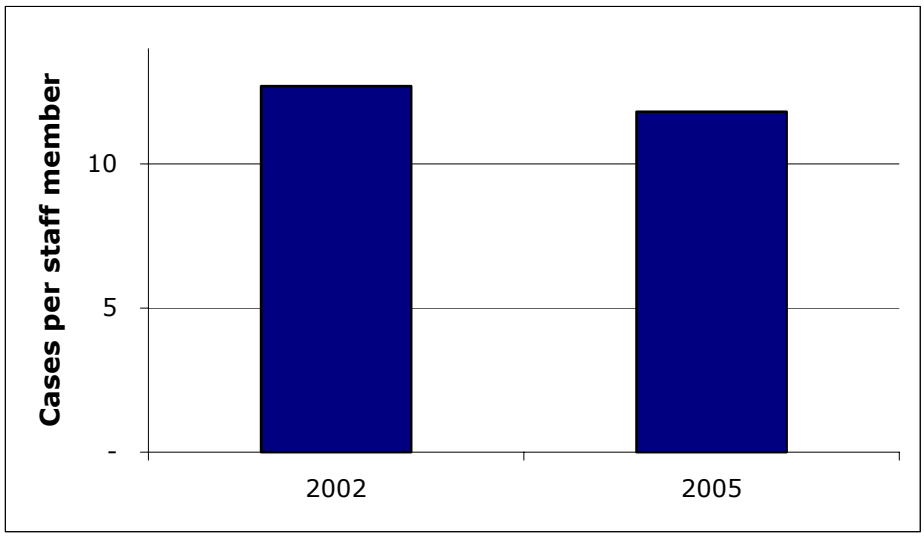
Notwithstanding the apparently greater waiting times of Tasmanian patients, it is our opinion that on average Tasmanian hospitals are compliant with national benchmarks and that comparisons with other jurisdictions are of limited value for the reasons stated above.

3.4 Efficiency

The number of surgical procedures that can be performed is affected by how many operational staff are available. We compared the throughput of operations with the total number of medical specialists and nurses over time to measure efficiency based on unweighted cases (see Figure 7).

[9] Productivity Commission, 2006, *Report on Government Services 2006,* Canberra.

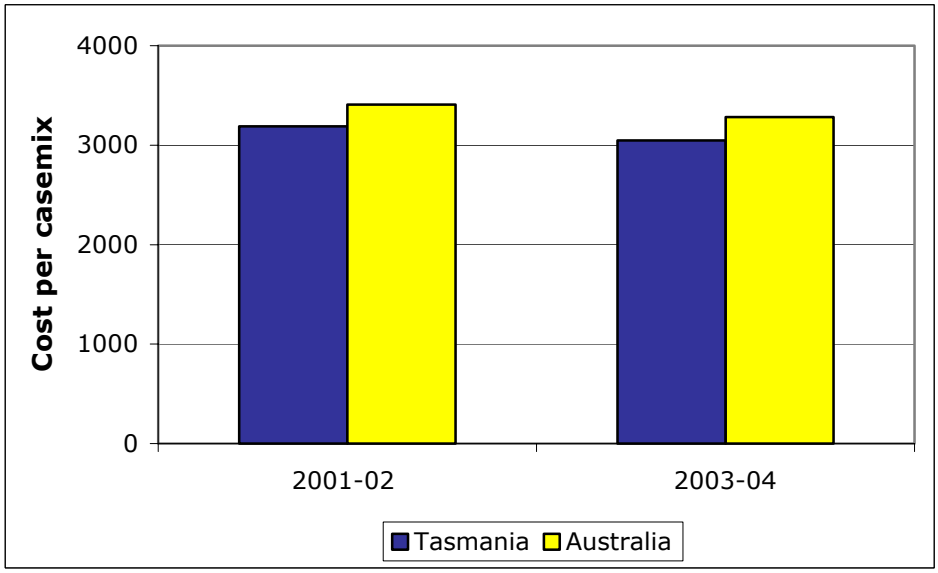
Figure 7: Unweighted cases per operational staff member: 2002 and 2005



The cases per operational staff member have reduced by 7% from 2002 to 2005. This might indicate a small reduction in efficiency. However, the measure is a fairly blunt one as it does not consider movements in staff mix or changes in the complexity of cases.

Figure 8 shows nationally published data that examines the cost per operation efficiency on an adjusted separation basis.

Figure 8: Recurrent cost per case mix adjusted separation[10]



[10] Productivity Commission, 2004 and 2006, *Report on Government Services (2004 and 2006),* Melbourne. Please note that a CPI adjustment of 6% has been made to index 2001-02 costs to 2003-04 costs.

This information suggests that on a case-weighted basis Tasmania was efficient compared to the other states. A small unit cost decrease over the above period was experienced by Tasmania and reflected in the national average.

3.5 Admissions by speciality and hospital

Not all surgical specialities are available at all three of the state's hospitals (see Introduction). The higher-volume specialities for each hospital are shown in Table 4 with data based on 2005 admissions.

Table 4: Admissions by speciality and hospital—2005

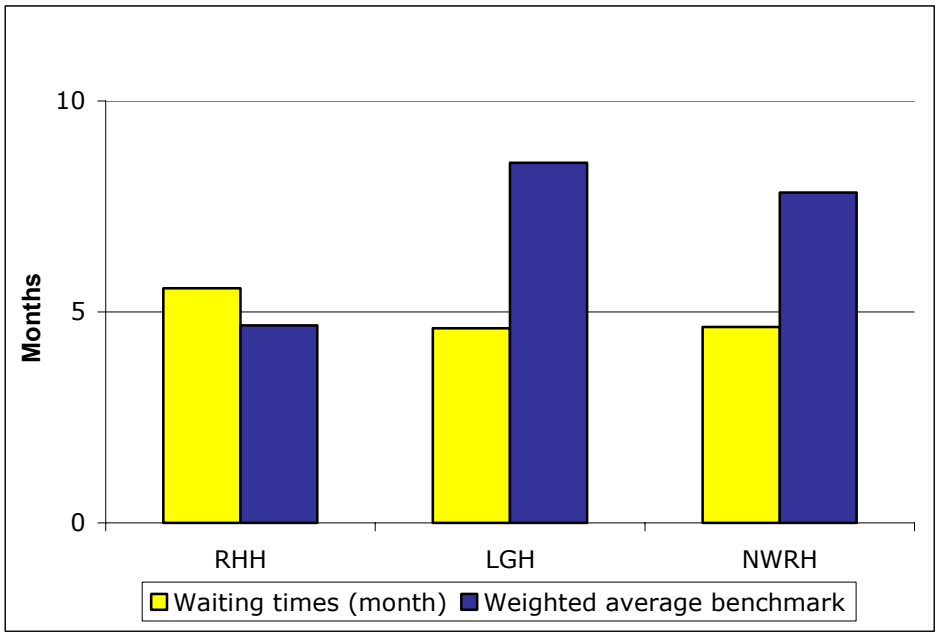
Specialty	RHH		LGH		NWRH	
	No.	%	No.	%	No.	%
General surgery	1076	18	898	19	1569	46
Plastics	756	13	491	11		
Urology	759	13	1121	24	6	1
Gynaecology	678	11	546	12	668	20
Orthopaedics	671	11	641	14	633	19
Cardio-thoracic	442	7				
Neurosurgery	191	3				
Ear nose & throat	143	2	234	5	163	5
Other	1261	22	751	20	327	9
Total	**5977**	**100**	**4682**	**100**	**3366**	**100**

Table 4 shows that the NWRH has a higher concentration of its patients in the top three specialities (excluding plastics and urology) because of its smaller size. The RHH, on the other hand, has a lower percentage of overall patients in the five largest grouping because as a tertiary institution it offers a greater number of specialties.

3.6 Hospital waiting times against benchmark

Consistent with our audit methodology (outlined in section 3.2.1), we considered the performance of the individual hospitals by comparing expected waiting times with our weighted averages benchmark (refer to Figure 9).

Figure 9: Waiting times to benchmark by hospital at June 2005



As shown in Figure 9, at the RHH a patient can expect to wait marginally longer than the weighted average benchmark. It is worth noting that the RHH is the hospital of last resort in Tasmania and receives patients that could not be treated at other hospitals and RHH's greater delays should be seen in that context. Waiting times at the LGH and the NWRH were considerably below the benchmark and indicated a strong performance.

3.7 Private patients in the public system

We were interested to determine the extent of treatment of private patients in the public system.

For the year ended June 2005, in total 7% of all elective surgery cases were people with private health insurance who opted to be treated as private patients in a public hospital. Table 5 indicates consistency across the state's hospitals (with the exception of Mersey where it is the only hospital in the area).

Table 5: Proportion of people who opted to be treated as private patients in public hospitals 2004-05

RHH	LGH	NWRH	
		(Burnie)	(Mersey)
5%	4%	8%	23%

Private patients provide an additional revenue stream for public hospitals. Further, treatment of private patients can assist hospitals to maintain accreditation by boosting numbers for particular specialties and adding to casemix.

There are also people who have private health insurance that opt to use public health facilities as public patients. However, we could not determine their numbers.

People do not lose their entitlement to treatment in the public system just because they have private health insurance, and are treated based on clinical need. Treatment of private patients in the public system can occur for the following reasons:

- patient choice
- specialised equipment, surgical needs
- services only available in the public system (e.g. cardiac).

3.7.1 Public patients in the private system

Some surgery is contracted to private hospitals for the following reasons:

- to retain medical training status—increased volume and case mix
- equipment is not available in the public system and its acquisition not warranted
- clinical requirement—to expedite surgery for long-wait patients.

Notwithstanding the above justification, treating public patients in private facilities requires careful assessment of costs and benefits. In some circumstances, patients are returned to the public hospital after their operation and a bed still has to be found. Finally, treating public patients in private hospitals could also act as a disincentive for people to maintain private health insurance.

3.8 Conclusion

We found that:

- On average, waiting times for more urgent categories exceeded benchmarks.
- On average, waiting times for other cases were within national benchmarks and were improving.
- RHH waiting times exceeded the national benchmarks and were high compared to other Tasmanian hospitals. One reason for this is that it receives the more difficult cases from other hospitals.

- Published comparisons with national data were unreliable because of inconsistent priority categorisation and other problems.

We also looked at a number of efficiency indicators and found that Tasmanian costs per operation had declined and that recurrent expenditure per person was lower in Tasmania than in other jurisdictions.

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4 Performance by specialty

4 Performance by specialty

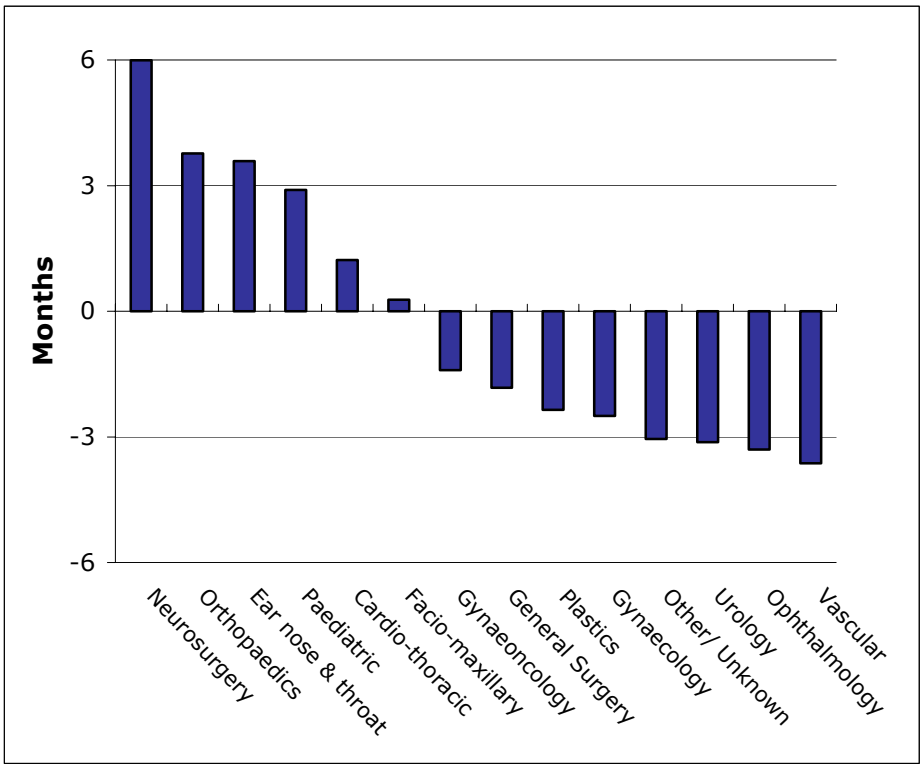
4.1 Background

There are numerous surgical specialties available in Tasmanian public hospitals. Three specialties (burns, thoracic and pain management) did not have significant numbers of patients indicated on the waiting list and were not considered in our analysis. Not all specialties are available in every hospital (for example, cardio-thoracic and neurosurgery are only available at the RHH).

4.2 Waiting times analysis

Figure 10 compares specialities using our calculated benchmarks. The zero line equates with the prescribed target times and values above that line represent additional waiting periods whilst those below it are better than anticipated performance.

Figure 10: Expected waiting times variance to TAO benchmark by specialty at June 2005



For six of the specialties (namely neurosurgery, orthopaedics, ENT, paediatric surgery, cardio-thoracic and facio-maxillary) patients could expect to wait longer than our calculated benchmark.

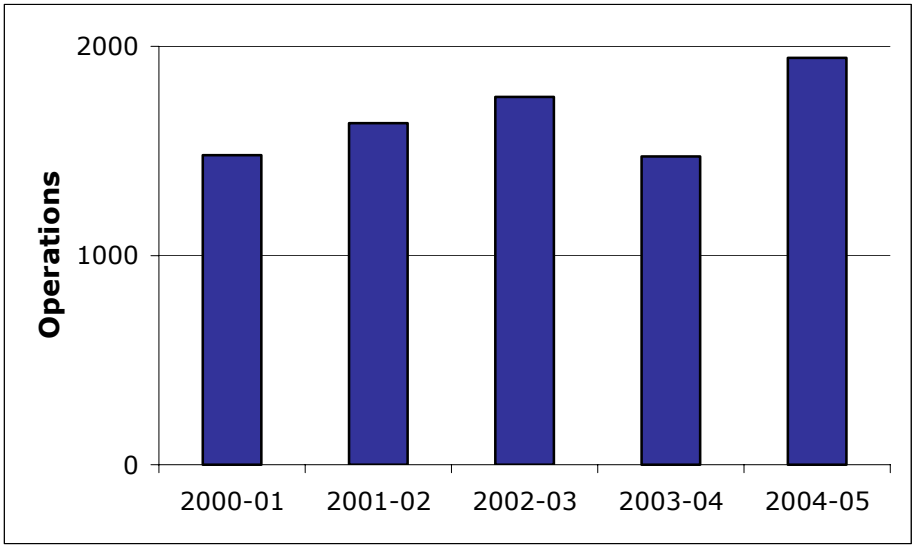
4.3 Summary of selected specialties

The following sections give a profile of some high volume specialties available in Tasmania between 2001 and 2005.

4.3.1 Orthopaedics

Availability	All hospitals
Waiting list June 2005	2264
Waiting-time benchmark	6.6 months
Expected waiting time	10.4 months
Operations (2001-2005)	↑32%
Unfilled VMOs and staff specialists (Sep 05)	2 Fulltime equivalent (FTE)

Figure 11: Orthopaedic operations



* Mersey added in December 2004.

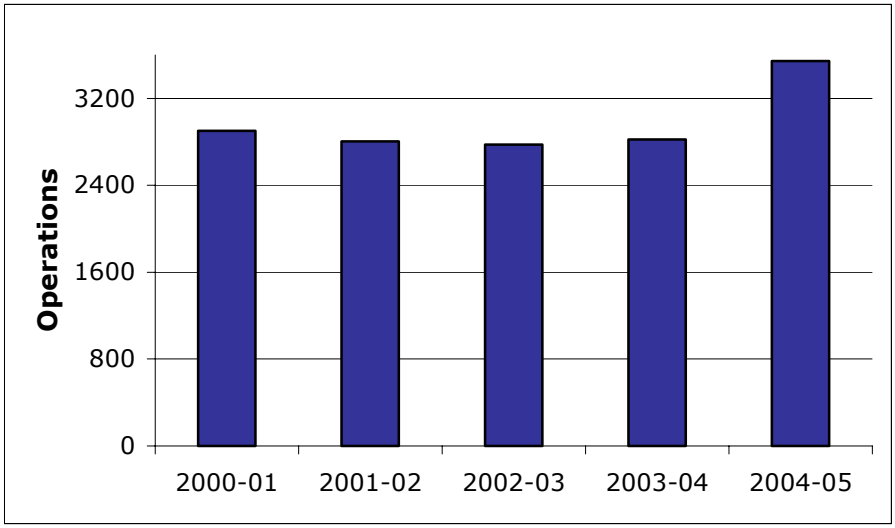
Comments:

- In 2005, only 2% of the waiting list consisted of Category 1 patients.
- The reduction in orthopaedic operations for 2003-04 resulted from a drop in operations at RHH and NWRH.
- Orthopaedic patients often have other medical conditions that increase the length and complexity of operations slowing the rate of removals from the list.
- A difficulty of offering specialties at all hospitals was the greater proportion of time that specialists would need to be on-call. This can make it difficult to attract and retain specialists to regional areas.

4.3.2 General surgery

Availability	All hospitals
Waiting list June 2005	1381
Waiting-time benchmark	5.7 months
Expected waiting time	3.9 months
Operations (2001-2005)	↑22%
Unfilled VMOs and staff specialists (Sep 05)	0.8 FTE

Figure 12: General surgery operations



⋆ Mersey added in December 2004.

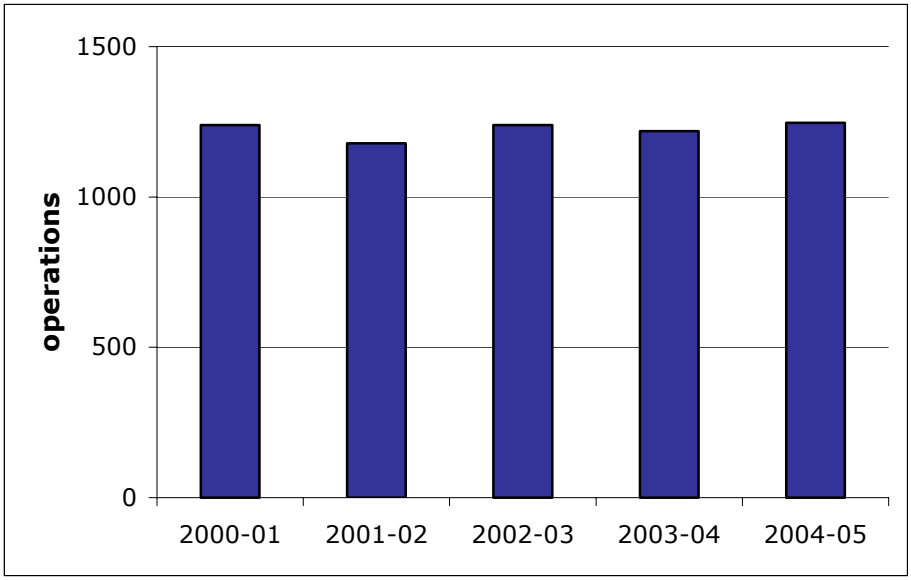
Comments:

- In 2005, 19% of the waiting list consisted of Category 1 patients, with the majority of these being at NWRH.
- General surgery is the most commonly performed specialty and in smaller hospitals sometimes covers matters that are performed under discrete specialties in larger hospitals.
- Notwithstanding the above, general surgery can be used for urgent procedures, such as cancer removal.

4.3.3 Plastic surgery

Availability	RHH and LGH
Waiting list June 2005	429
Waiting-time benchmark	5.9 months
Expected waiting time	3.5 months
Operations (2001-2005)	↑1%
Unfilled VMOs and staff specialists (Sep 05)	0.15 FTE

Figure 13: Plastic surgery operations



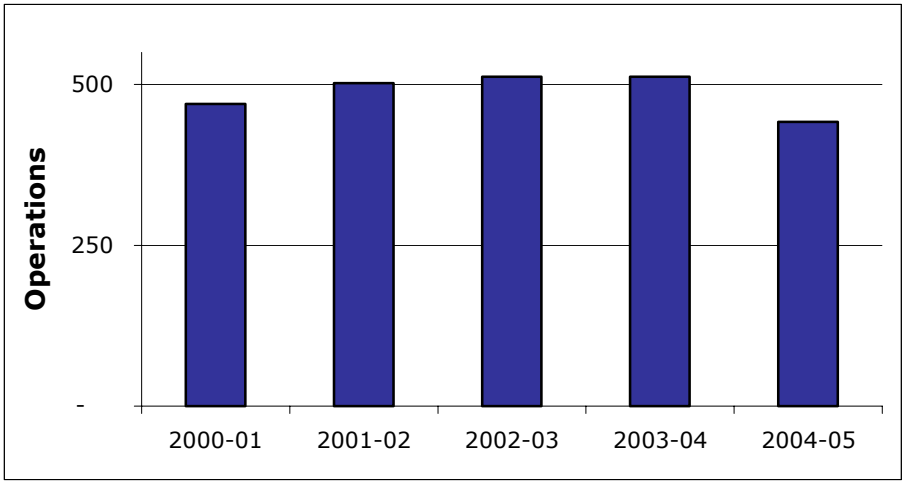
Comments:

- In 2005, 19% of the waiting list consisted of Category 1 patients.
- While the expected waiting time appears below the benchmark, there have been lengthy delays in getting an appointment for an initial consultation. At the RHH, there was a five-month wait to get an outpatients appointment for Category 1 patients. The specialist used a sub-categorisation of urgent for patients who need to be seen within two weeks to ensure that they received priority.
- We were advised that reduced access to theatre time was potentially impacting on retention of specialists, and had been a contributing factor in the loss of one plastic surgeon.

4.3.4 Cardio-thoracic

Availability	RHH
Waiting list June 2005	97
Waiting-time benchmark	1 month
Expected waiting time	2.2 months
Operations (2001-2005)	↓6%
Unfilled VMOs and staff specialists (Sep 05)	nil

Figure 14: Cardio-thoracic operations



Comments:

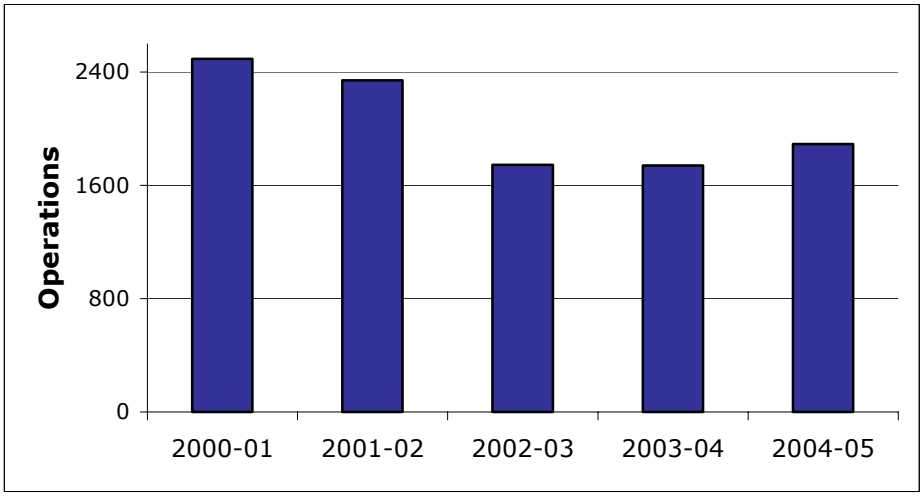
- In 2005, 99% of the waiting list consisted of Category 1 patients due to the serious nature of cardiac illness.
- The decrease in 2004-05 was due to new stenting procedures conducted by cardiologists rather than cardio-thoracic surgeons. Such procedures are not recorded as surgical.
- In order to retain accreditation the unit must treat a minimum of 300 cases per year.
- To maintain a critical mass, legislation requires all cardiac cases to be treated in the public sector. Pacemaker work can be carried out in the private sector. Some patients seek treatment interstate (approximately one case per week).
- There is a dedicated and adequately resourced cardio-thoracic ICU. Sometimes nurse shortages in the main ICU have been filled by cardio-thoracic nurses affecting surgical throughput.

4.3.5 Gynaecology

Availability	All hospitals
Waiting list June 2005	433
Waiting-time benchmark	4.9 month
Expected waiting time	2.4 months
Operations (2001-2005)	↓24%
Unfilled VMOs and staff specialists (Sep 05)	4.17 FTE*

*Includes obstetricians and gynaecologists

Figure 15: Gynaecology operations



* Mersey added in December 2004.

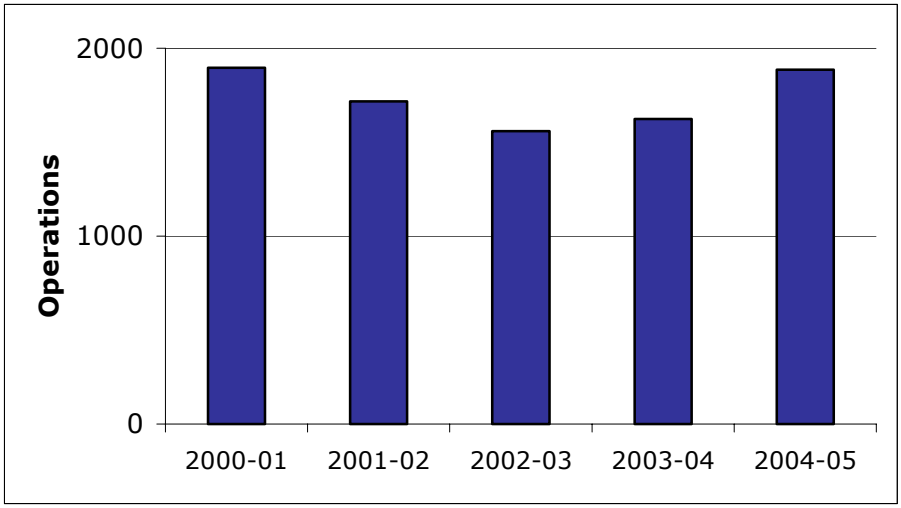
Comments:

- In 2005, 10% of the waiting list consisted of Category 1 patients while the majority of patients (66%) were Category 2.
- The reduction in supply from 2003 to 2005 was exacerbated by staff vacancies. During part of this period, specialists limited caseload to obstetric services only.
- Although performance was above our calculated benchmark, a lack of staff caused a reduction in outpatient clinics.

4.3.6 Urology

Availability	RHH and LGH
Waiting list June 2005	546
Waiting-time benchmark	6.1 month
Expected waiting time	3 months
Operations (2001-2005)	↓1%
Unfilled VMOs and staff specialists (Sep 05)	2 FTE

Figure 16: Urology operations



Comments:

- In 2005, 23% of the waiting list consisted of Category 1 patients. At the RHH, 55% of patients were Category 1 while at the LGH it was just 4%. This variation may be an indication of the way different specialists apply the category system.
- Urology services at the NWRH were discontinued in 2002 but reintroduced in 2006, with the two Launceston-based urologists travelling to Burnie.
- During the non-service period, patients from the North West had to travel to Launceston or Hobart for treatment or be treated in the private system.

4.4 Conclusion

We reviewed performance for 13 predominant specialities and found that expected waiting times were under the benchmark for seven specialities, while six exceeded the benchmark. Of those more widely used, orthopaedics and ENT did not meet the benchmark at that time.

5 Performance by resource

5 Performance by resource

Initially, we wanted to determine if there were sufficient operating theatres and if not whether shortages of other resources were causing bottlenecks.

5.1 Operating theatres

5.1.1 Background

Hospitals use monthly timetables that allocate blocks of time to specialists. Through that system, surgeons should have certainty as to when they can access operating theatres. Based on clinical need, and to meet casemix requirements, specialists determine their own operating lists and decide which patients are scheduled for the next time block available.

Theatre time is lost in various ways:

- theatre sessions not scheduled
- cancellations and postponements
- other efficiency issues.

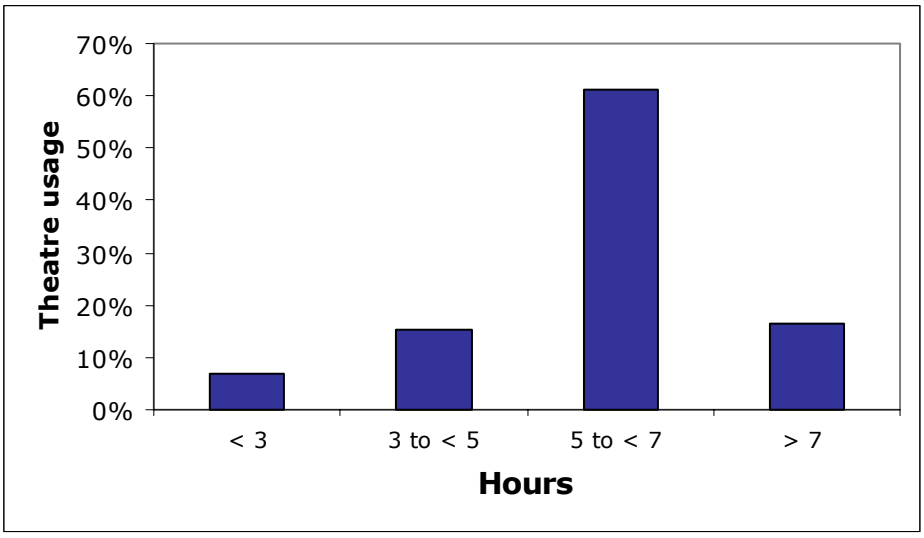
5.1.2 Theatre sessions not scheduled

5.1.2.1 Practical capacity of theatres

Although operating theatres are theoretically available 24 hours per day seven days a week, in practice throughout Australia usage is typically restricted to a maximum of eight hours per day Monday to Friday. The effective time is further reduced through set up and clean up and time taken to get the next patient into the operating theatre.

We could find no measure of the practical capacity of operating theatres nor did management reports compare actual use against targets. To obtain a realistic measure, we used the concept of theatre sessions (e.g. RHH Theatre 1, Monday PM) and average usage as shown in Figure 17.

Figure 17: Theatre usage per day[11]



Whilst the majority of theatre sessions were below seven hours, in our opinion, there was sufficient theatre usage above that mark to indicate that seven hours is a conservative measure for practical capacity of operating theatres and we have applied this as a performance measure in the following section.

5.1.2.2 Comparison of actual to benchmark

The data provided did not take into account sessions that had not been used at all which had the effect of overstating average usage. Accordingly, we modified the data to allow comparison to the benchmark.

Next, we compared usage across the three regions as shown in Figure 18 that indicates what could have been achieved if all sessions had been used.

[11] Based on actual individual theatre usage data from each of the hospitals collected between July 2005 and December 2005. Theatre time recorded starts from commencement of anaesthesia until patient leaves the theatre.

Figure 18: Theatre usage per day by hospital campus[12]

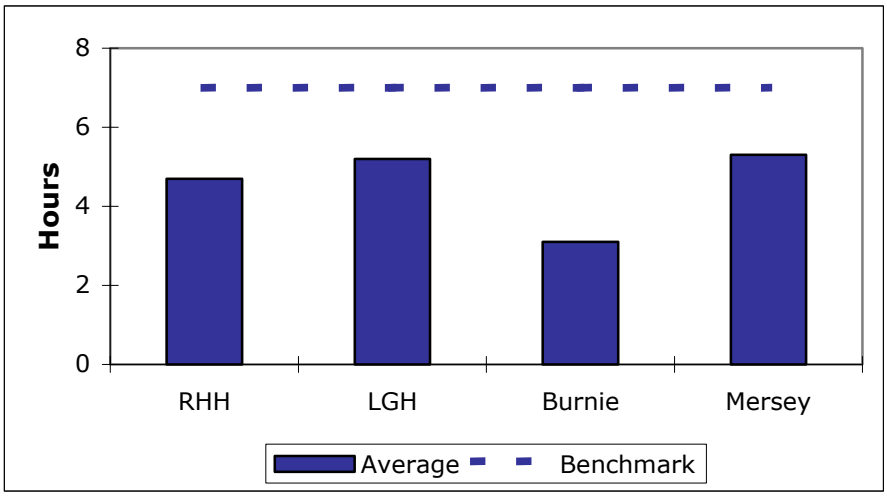


Figure 18 shows that usage of operating theatres in Tasmania was well below what we believed to be reasonable. Even excluding Burnie, usage was 27% below our benchmark.

In the course of the audit, one senior manager speculated that there might not have been a need for the two extra theatres currently under construction at the RHH, if the existing theatres were being used efficiently. We reviewed the Cabinet submission for the new theatre funding, but found little or no information about usage, or practical capacity of existing operating theatres to support the submission. Arguments for construction of the new theatres included a potential 28% increase in elective surgery sessions.

Based on our finding of under-usage, we were not persuaded that there was a need for additional capacity, although there could well be other arguments in favour of building the new theatres.

Recommendation 4

Management should set benchmarks for theatre usage and regularly assess performance against those benchmarks. Decisions about resources should take into account such assessments.

5.1.2.3 Reasons for under-usage

We tried to determine why some operating theatre sessions had not been used. Possible reasons included:

- beds not available
- lack of theatre nurses

[12] Based on actual individual theatre usage data from each of the hospitals as used in Figure 17 except that unused theatre sessions have been included in the averaging.

- patient no-shows
- lack of specialists or anaesthetists
- equipment failure.

We found that reasons for non-use of operating theatre sessions had not been recorded, and that no such information was routinely collected or made available to hospital or departmental management. In our opinion, this information is essential to making informed decisions about resources.

As a hypothetical example, there would be little point focusing on specialist shortages if the main contributing factor to loss of theatre time was non-availability of theatre nurses.

Recommendation 5

Hospitals should record the reason for any downtime in operating theatres. Management should regularly review summary data as a basis for decisions about resource acquisition and allocation.

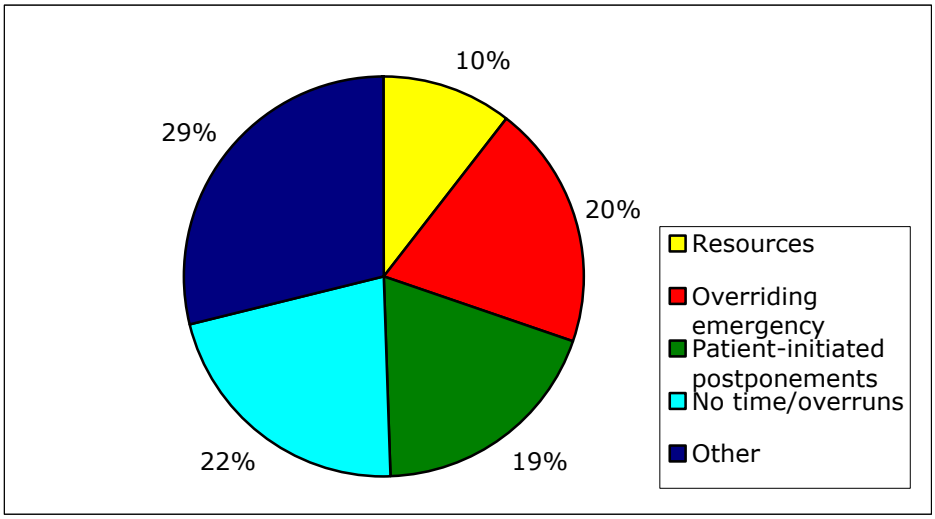
5.1.3 Cancellations and postponements

We reviewed the level of cancellations and postponements[13] for elective surgery patients either before admission or after they had been admitted to hospital. We found that 10% of booked patients were cancelled or postponed. Reasons for cancellations and postponements can be categorised as:

- resource-related
- overriding emergency
- patient-initiated
- no time/overruns
- other.[14]

[13] Results gained by TAO based on operating theatre lists over a three-month period. Results were similar to long-term ESMIS data provided by most hospitals.
[14] Other reasons include: operation not required, transferred to emergency lists and surgeon-initiated overruns.

Figure 19: Reasons for cancellations and postponements



5.1.3.1 Resource-related postponements

Of the 10% (1% of all bookings) referred to above in Figure 19, this category encompasses the following scenarios:

- surgeon, anaesthetist or theatre staff unavailable (3%)
- equipment unavailable (2%)
- no appropriate beds (5%).

Resource-related postponements represented only 1% of all patients booked for surgery and on that basis, we opted not to perform further analysis of these postponements.

In addition, there are hidden resource costs for hospitals when theatre sessions are cancelled. For example, employment contracts indicate that VMOs were still paid for theatre sessions that were cancelled.

Nonetheless, we note that postponements are stressful to patients and their families and the disruption that patients may face in being hospitalised is considerable.

We were concerned at reports that in some cases communication problems between operating theatres and booking clerks had resulted in patients not being reinstated on the waiting list. The consequence of this is that the patient cannot be considered for surgery.

Recommendation 6

Hospitals should ensure that postponed patients are immediately reinstated on the waiting list.

5.1.3.2 Effect of emergency admissions

Emergency admissions (20% in Figure 19) reduced the overall level of elective surgery by 2% in 2005 because of the conflicting need for theatres and staff[15].

The return of Mersey campus to the public sector in December 2004 skewed state data. Therefore, for comparison purposes, we confined our review to RHH and LGH data (see Figures 20 and 21).

Figure 20: RHH trends in all surgery 2002-05

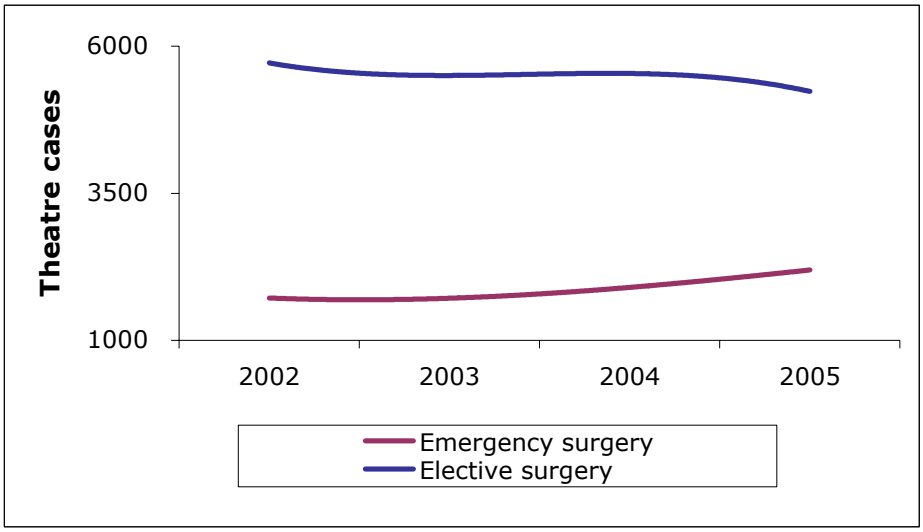
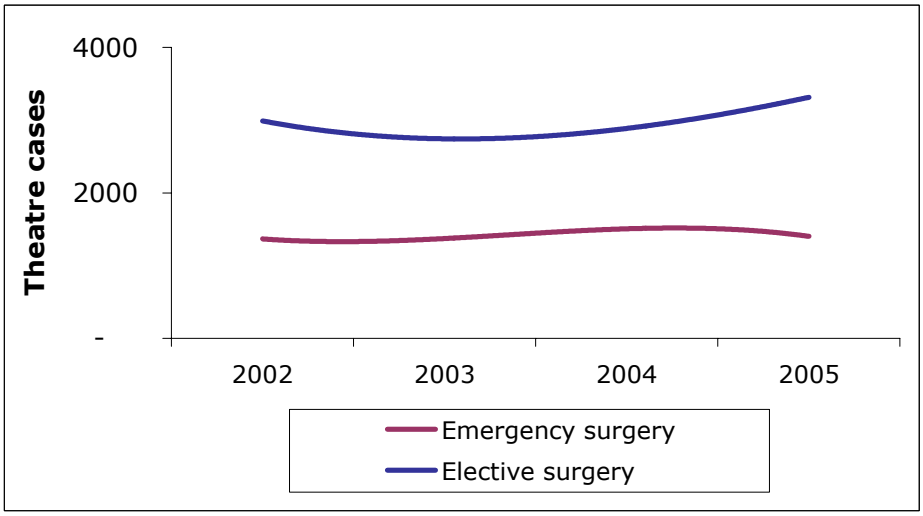


Figure 21: LGH trends in all surgery 2002-05



It is clear from Figures 20 and 21 that there is an inverse relationship between elective and emergency surgery; increases in emergency surgery have had a negative impact on elective surgery levels. It is

[15] Operating theatres are also used for medical procedures (e.g. colonoscopy). We did not include medical case data in the scope of this audit.

not possible from this data to conclude whether that impact was due to staff constraints, theatre constraints or both.

We noted in section 5.1.2.2 that two new theatres are being built at the RHH and expressed some doubts at the need for them based on the current under-utilisation of the existing theatres. The new theatres, if separately staffed, have the potential to eliminate the 2% loss to elective surgery. However, the additional staffing might have had the same beneficial impact without the extra theatres. The LGH and NWRH also have programs to expand their theatre facilities.

Recommendation 7

DHHS should ensure that adequate resources are available to efficiently operate current and planned operating theatres.

5.1.3.3 Patient-initiated postponements

Examples of patient-initiated postponements and cancellations are:

- patient no show
- scheduled time inconvenient for patient
- problems with medical condition (the largest group)
- patient non-compliance with medical direction (e.g. failing to make changes to medication or lifestyle).

These are largely beyond the hospitals' ability to control although hospitals can use stand-by patients to maximise use of theatre time. Hospitals can also make patients aware of strategies to manage their medical conditions and help them to stay fit enough for surgery while on the waiting list. Table 6 summarises some of the strategies hospitals use to minimise patient initiated cancellations before admission.

Table 6: Strategies to reduce patient-initiated cancellations

Hospital	RHH	LGH	NWRH
Pre-admission clinics held	Yes	Yes	Yes
Patient contact initiated if no-show at preadmission clinic	Yes	Yes	Yes
Patient contact day before surgery	Yes	No	No
Use time-permitting patients[16]	Yes	Yes	No
Patient-initiated no shows/non-compliant	2.6%	0.5%	0.7%

From Table 6 it can be observed that the RHH, in addition to using all of the strategies adopted by the other two hospitals, also required patients to make contact the day before admission. Despite this, the RHH still had the highest percentage of patient no shows and non-compliant patients. Other hospitals did not appear to have additional procedures to explain their lower levels of patient-initiated cancellations.

5.1.3.4 'No time'/overruns

Postponements or cancellations due to 'no time' or overruns can occur for the following reasons:

- operations run longer than anticipated
- waiting for a post-operative bed (refer 5.4)
- delays in waiting for equipment (refer 5.5)
- overbooking.

Often the abovementioned reasons for postponement were not easily identifiable from theatre lists. For example, waiting for a bed or equipment for an earlier patient may cause delays, ultimately resulting in a later theatre case being postponed for 'no time'. Consequently, it is possible that resource-related postponements and cancellations were understated.

[16] Time-permitting patients are those on standby at the hospital or at home. Hospitals using time-permitting patients deliberately overbook their lists so that theatre session throughput can still be maximised even if there are no shows or booked patients later deemed unfit for surgery.

Recommendation 8

Hospitals should record the underlying reasons for postponements and cancellations to enable efficiency gains to be made.

5.1.4 Other efficiency issues

5.1.4.1 Perioperative review

In 2005, the RHH engaged consultants to review its perioperative services. In an interim report[17], the consultants suggested numerous changes to management practices and other processes including:

- application of good logistics management to ensure that all required equipment is available at the scheduled time
- scheduling short procedures first since they contain less inherent variability
- scheduling operating theatre time based on reliable historical data so that likely overruns by specific surgeon/procedure combinations are minimised
- reducing time needed between one operation and the next through better team work
- overlapping induction of anaesthesia allowing more intense scheduling of operations.

The hospital has accepted the recommendations and has commenced implementation.

Recommendation 9

Relevant recommendations from the *Perioperative Services Review Project* at the RHH should be considered for implementation at the LGH and NWRH.

5.1.4.2 Balancing short and long operations

Inevitably, some operations run over time and flexibility is necessary to cover such contingencies. Usually, operating theatres are available between 08.30 and 17.00 on weekdays. However, operating theatre nurses may be unable to stay later and if a session appeared likely to over run due to a flow on from a previous operation, then the last-scheduled procedure could be postponed. As an example, if an operation were to be scheduled for two hours starting at 14.00 over

[17] Wooles Group, 2005, *Perioperative Services Review Project: Royal Hobart Hospital 2005,* Melbourne.

ran to 16.30, an hour-long procedure booked for 16.00 would most likely be postponed to a later date.

In section 5.1.4.1, we made an observation about implementing relevant recommendations from the RHH perioperative review to increase operating theatre efficiency. One possible suggestion made in that report to overcome the problem highlighted above was the use of a scheduling screen so that surgical teams would be aware of the next case due and its timing implications. A further initiative that could be considered is some performance incentive to reward teams for productivity gains.

Recommendation 10

The department or hospitals should consider strategies to reduce loss of productivity from postponement of surgery where that surgery would over run scheduled theatre time.

5.2 Nurses

5.2.1 Background

Operating theatres cannot function properly without trained nurses. In this section, we investigate whether there were adequate numbers of theatre nurses and whether any shortages were disruptive to the supply of elective surgery.

Nurses are classified as either enrolled (TAFE qualified) or registered (university graduates). Currently, the scope for enrolled nurses in operating theatres is quite restricted because they can only undertake a limited range of duties.

Nursing positions can be full time, part-time or casual. Each hospital maintains its own casual pool of nurses that can be used to fill short-term gaps. Nurses can also be hired temporarily from external recruitment agencies but the costs were higher and their use restricted.

Formerly, hospitals hired skilled nurses but shortages in the market have meant that hospitals now recruit nurses without specific theatre training and then provide on-the-job training. Nursing roles are quite distinct, for example, instrument and recovery nurses require different training. Multi-skilling is used wherever practical and is used more in the north of the state.

5.2.2 Nurses—impact on elective surgery

We wanted to establish:

- staff numbers and how they had changed over time

- how staff numbers compared with establishment over time and whether periods of shortage had had an impact on elective surgery.

Unfortunately, we were unable to:

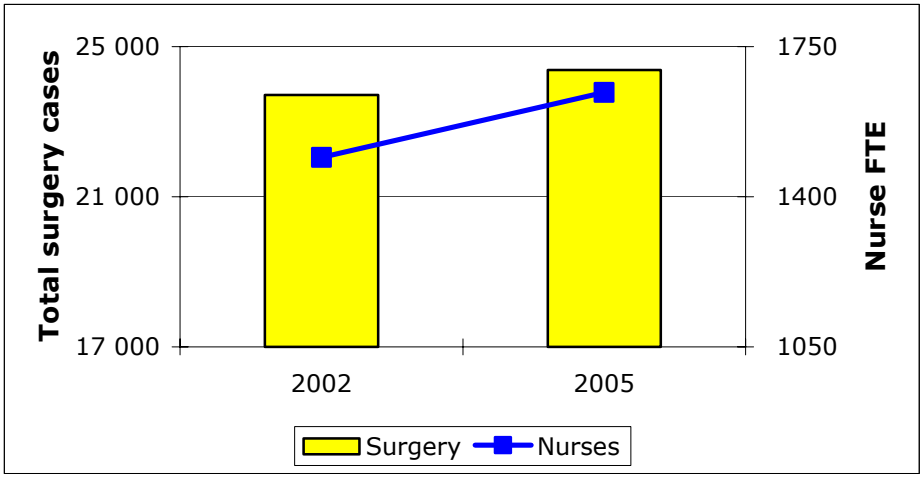
- obtain specific information about theatre nurses for any hospital except RHH
- get establishment data for the period for general or theatre nurses
- find management information about nurses.

Recommendation 11

Hospitals should periodically record sufficient information about nursing numbers and vacancies to enable management to conduct longitudinal performance analysis.

However, we were able to observe movement in general nurse numbers as shown in Figure 22.

Figure 22: Comparison—surgery to general nurse numbers: 2002 and 2005[18]



We observed that between 2002 and 2005 there was a 7% decline in the number of operations per general nurse.

The only establishment data provided was for RHH theatre nurses and it indicated that at April 2004, 9% of positions were vacant and 5% at June 2006.

Conclusions about the impact of possible shortages of theatre nurses on elective surgery are necessarily weakened by:

[18] Note that analysis excludes the Mersey campus of NWRH because of its return to the public system in December 2004.

- inability of hospitals to provide requested data
- failure of hospitals to record reasons for non-scheduling of theatre sessions (see section 5.1.2).

The reduction in the number of operations per nurse indicates that general nurses are not a bottleneck in the system but in the absence of specific data about theatre nurses, it is not possible to reach a conclusion as to any impact of theatre nurse shortages on elective surgery.

5.2.3 Benchmarking of theatre nurses

The number of theatres that can operate safely at any time is strongly linked to the staff establishment. A benchmarking exercise was attempted using a WA-based process called 'Nursing hours per patient day' (NHPPD). Although it was applied successfully to other parts of the hospital system, it could not be extended to theatre nurses.

An alternative benchmarking tool was proposed by the Australian College of Operating Room Nurses (ACORN) and has been successfully applied in NSW. An unofficial benchmarking exercise, using ACORN, was conducted at the LGH in late 2005 and indicated that the hospital needed 30% more theatre staff in order to effectively and efficiently operate all theatres. A similar exercise was not conducted at the other hospitals.

Official use of this model statewide was delayed by attempts to use NHPPD. No action resulted from the LGH benchmarking exercise and as a result, the perception at the hospital level was of a lack of commitment to the process.

We have now been advised that a modified version of the ACORN model is to be used.

Recommendation 12

Benchmarking of operating theatre nurses should be completed as a matter of urgency to provide a basis for determining appropriate staffing levels.

5.2.4 Nurses—recruitment

Before December 2004, hospitals had been critical that recruitment was excessively bureaucratic. Recent comments in the media have indicated that that perception persists despite action by management to streamline recruitment and transfer the process to the hospitals. Notwithstanding the negative perceptions, we found that the process was satisfactory.

Some hospital staff expressed the view that greater recruitment flexibility was needed to offer potential employees permanent employment. Appointment in anticipation of an actual vacancy was one tactic in use at the RHH. This provides certainty of employment for job seekers who are considering relocation to Tasmania and has proven a useful recruiting tool.

Recommendation 13

To help secure new employees, LGH and NWRH should also consider recruiting nurses in anticipation of an actual vacancy.

Registered nurses are either recruited externally or begin their careers as students enrolled in the University of Tasmania nursing course. Often though, nurses with theatre experience are difficult to recruit. Usually, student nurses' exposure to operating theatres is brief—just three weeks—and comes at the end of their training when they are more focused on finishing their course rather than broadening their career options. Hospitals have graduate programs where nurses spend six months gaining experience in theatres. However, such on-the-job training of nurses places an extra strain on existing surgical resources.

Recommendation 14

DHHS should work with universities through graduate programs and other projects to develop pathways and experiences leading to an increased number of appropriately trained theatre nurses.

DHHS should explore the possibility of providing more in-house training in theatre nursing.

To improve recruitment, the department has also used a *Re-entry to Practice* program as a way of attracting former nurses back to the profession, however for various reasons re-entry nurses are less likely to seek positions in operating theatres.

To relieve some of the duties of existing theatre nursing staff, two options that have been used interstate are:

- theatre technicians with specific technical skills
- expanded duties for enrolled nurses.

Recommendation 15

Hospitals should consider alternate workplace staffing to perform some nursing duties in operating theatres.

Another approach that could aid recruitment is flexibility in staff rostering. Fractional workloads (ranging from full-time work to one shift per week) maximise the availability of staff and can help to provide a balance for work and other life pressures. We noted that interstate hospitals support family-friendly initiatives such as on-site crèches or subsidised child-care for nurses that would make shift overruns less problematical.

Other possibilities that might be worth considering are earlier start times or introduction of night sessions, which may be preferable for some staff. We noted that Royal North Shore in NSW commences at 06.30.

Recommendation 16

Hospitals should look to maximise the flexibility of rostering arrangements and employment conditions.

Hospitals should consider the introduction of earlier start times and/or night theatre sessions.

Another consideration concerning staffing of nurse positions was the age profile of the existing workforce. A survey[19] in 2001 found that 46% of nurses were over the age of 45. A wave of future retirements can be anticipated and replacement of those staff will be essential. While hospitals were aware of the situation formal planning should be undertaken to formulate strategies to cope with future nurse retirements.

Recommendation 17

Hospitals should introduce forward planning for theatre nursing staff.

5.2.5 Nurses—retention

As stated in section 5.2.3, the connection between the nursing establishment and hospitals' capacity to treat elective patients was crucial. Retaining existing staff who are experienced and have demonstrated commitment has added importance in an environment where recruiting nurses is difficult. Hospital HR practices recognised staff retention and examples of initiatives already used were:

- flexibility in rostering
- opportunities to either:
  - stay in close knit teams

[19] Department of Health and Human Services, 2001, *Final report of the Tasmanian Nurse Workforce Planning Project*, Hobart.<http://www.abc.net.au/news/

  - have job rotation through other theatre roles
- access to professional development with support for study time and fees.

In conjunction with the latter point, post-graduate course fees were paid by some mainland hospitals. Further, funding for initiatives such as bonding post-graduate students through the payment of HECS fees may help to retain graduate nurses.

A role also exists for further developing HR management skills in nurse managers. Training in contemporary management techniques has shown some success in increasing awareness of improving workplace communications, dealing with performance management and injury prevention.

Recommendation 18

Hospitals should continue to develop HR strategies such as training (e.g. fees assistance, bonding of graduates, management training) or bonuses linked to high output to strengthen nurse retention.

5.2.6 Nurses—exit interviews

One way of understanding the factors that drive staff turnover is to hold exit interviews with staff. When people leave an organisation, they are likely to be candid if asked about the reasons for their departure and to provide opinions about workplace problems and even suggest possible solutions.

We wanted to ascertain whether nurses who left the hospitals had received exit interviews. We found that only the Burnie campus of the NWRH conducted exit interviews with exiting nurses. The department stated that it planned to develop an agency-wide exit interview procedure.

Recommendation 19

DHHS should develop and implement an agency-wide exit interview policy for nurses.

5.3 Surgical specialists (including anaesthetists)

5.3.1 Background

In the public system, there are staff specialists who are employees of the hospitals and visiting medical officers (VMOs) who are self-employed specialists contracted by hospitals. VMOs are paid on a sessional basis for a contract period. Treating patients is just one aspect of a specialists' work, research and teaching are also important

components. To retain accreditation status, hospitals need to maintain levels of surgical throughput consistent with standards prescribed by the various specialty Colleges. If a loss of accreditation occurs, a hospital loses some of its attractiveness as a possible employer.

5.3.2 Surgical specialists—impact on elective surgery

We were unable to obtain:

- establishment data over time
- actual specialist numbers over time.

However, we were able to obtain point-in-time data for September 2005. In the following subsections, we examine the overall situation and then review anaesthetists in particular.

Recommendation 20

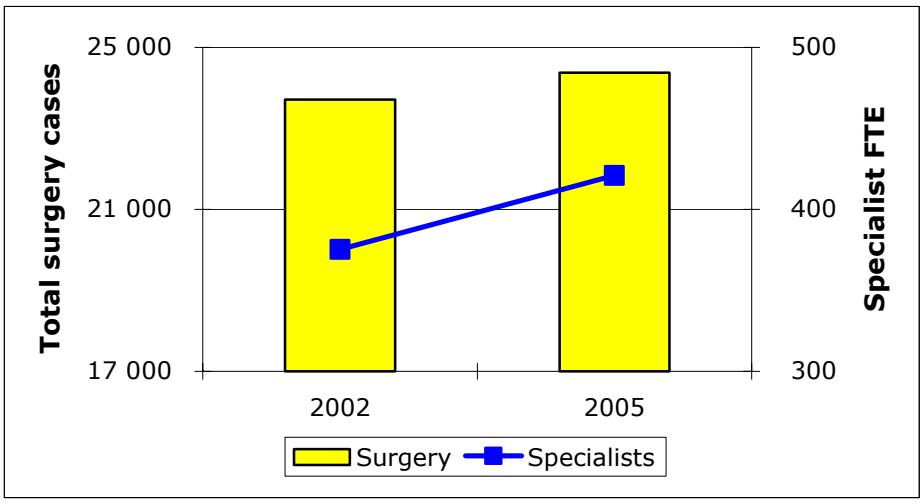
Hospitals should periodically record sufficient information about specialist and anaesthetist numbers and vacancies to enable management to conduct longitudinal performance analysis.

5.3.2.1 All surgical specialists

In relation to surgical vacancies, we found that there were 12.7 FTE (or 19%) unfilled VMO and staff specialist positions in Tasmanian hospitals as at September 2005. Vacancies in junior doctor positions also placed pressure on staff working in the public hospital system. However, in the absence of reasons for non-scheduling of operating theatre session (see section 5.1.2) we were unable to form a view as to whether those vacancies had a significant impact on supply of elective surgery.

However, we were able to observe movement in general specialist (not limited to surgical) numbers as shown in Figure 23.

Figure 23: Comparison—surgery to specialist numbers: 2002 and 2005[20]



All hospitals recorded an increase in specialist numbers between 2002 and 2005 with a statewide increase of 15%. However, comparison of the movements in specialist numbers and total surgery showed a decline in cases per specialist of 8%. It needs to be recognised that this is a blunt measure in that it fails to recognise possible changes in casemix and our data includes all specialists rather than just surgical specialists.

Notwithstanding the limitations of the above measure, we were not persuaded that a lack of specialists has been holding back supply of elective surgery. However, it is possible that lack of specialists may have impacted on supply for some specialties, e.g. gynaecology (refer 4.3.5).

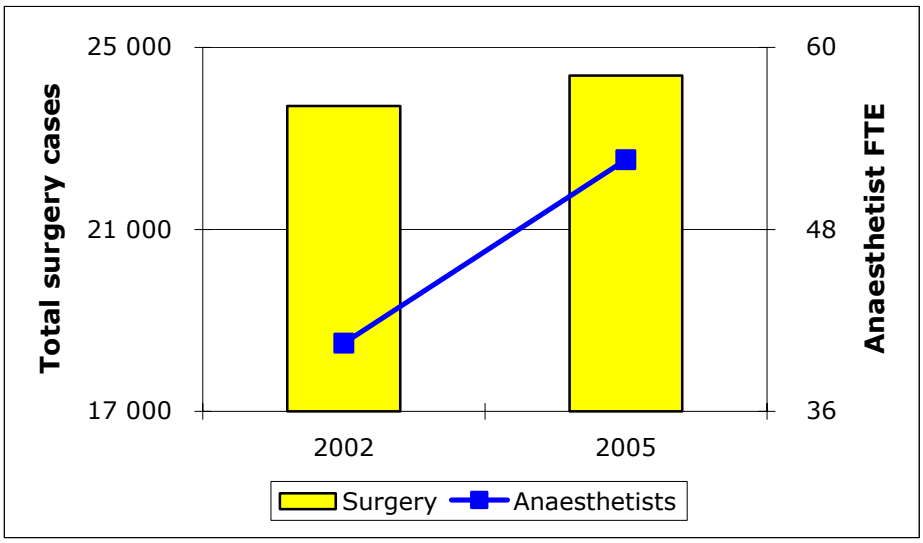
5.3.2.2 Anaesthetists

At September 2005, there was a shortage of seven anaesthetists (five at the RHH). This situation was widely reported in the media[21] indicating that accreditation of trainee registrars in a range of specialties was threatened by reductions in surgery. Because of the previously mentioned lack of records, we were unable to fully substantiate this claim, although we did obtain some supporting evidence that there had been a reduction in pre-admission clinics at the RHH during 2005.

We were unable to obtain separate information for anaesthetists and the data in Figure 24 has been derived from general specialist data based on award descriptions.

[20] Note that analysis excludes the Mersey campus of NWRH because of its return to the public system in December 2004.
[21] ABC newsonline, 8 October 2005, *Royal Hobart accreditation under threat*,

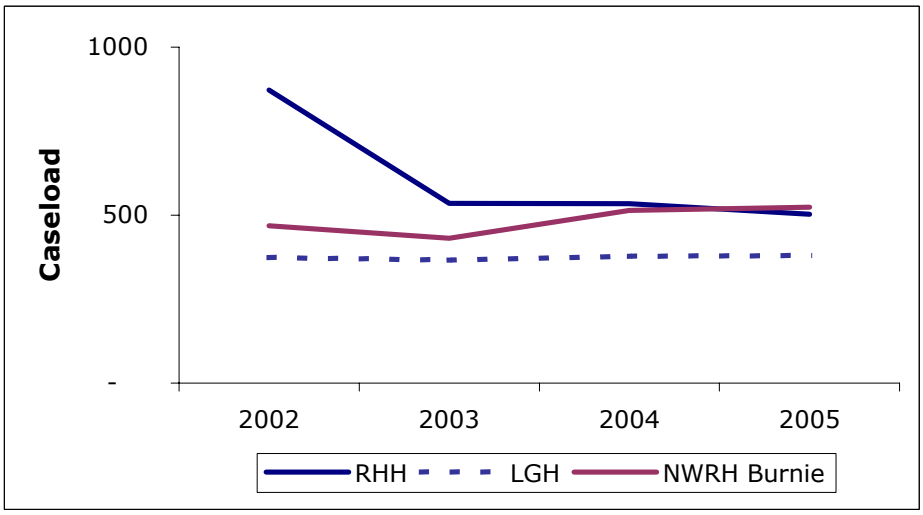
Figure 24: Comparison—surgery to anaesthetist numbers: 2002 and 2005[22]



Between 2002 and 2005, there was a statewide increase of 30% in anaesthetists. In the same period the average caseload per anaesthetist declined by 21% so that *prima facie* the current level of anaesthetists would appear to be easily sufficient.

However, there were major variations between hospitals and it appeared that the caseload at the RHH in 2002 was extremely high and had a disproportionate impact on our analysis (see Figure 25).

Figure 25: Caseload per anaesthetist: 2002-05



A more balanced judgement might be that there was a substantial problem at the RHH in 2002 and that with that exception the caseload per anaesthetist has remained reasonably constant.
It is difficult to reach a conclusion on the adequacy of anaesthetist numbers in the absence of data explaining theatre downtime. As we stated in Recommendation 5:

[22] Analysis excludes Mersey because of its return to the public system in December 2004.

Hospitals should record the reason for any downtime in operating theatres. Management should regularly review summary data as a basis for decisions about resource acquisition and allocation.

5.3.3 Surgical specialists—recruitment

Demand for surgical specialists is a phenomenon that affects not just Tasmania and other Australian jurisdictions; it is prevalent in many developed countries where ageing populations put increased pressure on elective surgery. The supply of surgeons and anaesthetists is limited and Tasmania is just one bidder in a market where resources are keenly sought.

We reviewed recently filled position files from the department pertaining to the recruitment of surgical specialists. Advertising for positions was widespread, relying not just on local, interstate and national newspapers but also journals such as the *Medical Journal of Australia* and the *British Medical Journal*. Other sources such as the Internet and recruitment agencies were also used.

Of those vacant positions that we reviewed, 18% were filled by applicants residing in the state, 23% moved from elsewhere in Australia while the majority (59%) came from overseas. We also found that specialists on fixed-term contracts were secured by new contracts before expiry of their existing term of employment.

Normally, vacancies took between two to three months to fill but some longer delays had occurred; the longest was five months. The recruitment process after initial selection involves checking of medical qualifications, stated experience and references to ensure that candidates' claims are valid. Where the successful applicant is from outside of Australia time delays are unavoidable. Three of the files in our sample showed that the preferred candidate withdrew from accepting the position after a selection was made. Due diligence on the second-placed applicants inevitably led to hold-ups especially since these candidates were from overseas.

From the files that we reviewed, it was evident that the department acted quickly to replace surgical specialists when vacancies occurred.

5.3.4 Surgical specialists—retention policies

Maintaining accreditation with the respective colleges affects the retention of surgical specialists. Reduced access to operating theatres can lead to necessary volume and casemix not being achieved. As an example, increased Category 1 demand and a 50% reduction in theatre time at the RHH meant that, in at least one specialty, case mix was often sacrificed. Specialists believed the threat of loss of accreditation was very real and that, if this were to occur, many specialists would seek positions in other accredited hospitals.

Recommendation 21

Adequate volume and casemix to maintain accreditation should be one factor considered when scheduling operating theatre time.

5.3.5 Surgical specialists—exit interviews

As discussed in section 5.2.6 with regard to nurses, there is also a need for hospitals to routinely hold exit interviews with departing specialists. This can reduce the prevalence of such 'exit interviews' being conducted through the media with adverse impacts on the reputation of the hospital and staff morale.

Recommendation 22

DHHS should develop and implement an agency-wide exit interview policy for surgical specialists.

5.4 Bed management

5.4.1 Background

Performance of elective surgery depends upon the availability of beds of the required type e.g. medical, surgical or children's'. Management of beds is not just about a physical resource, as each ward bed has to be supported by adequate numbers of nurses.

Surgical bed management has to deal with the following issues:

- staff shortages
- long-term patients
- occasional requirements of non-surgical patients.

All hospitals have bed management procedures with specialised bed managers.

5.4.2 Impact of bed management on elective surgery

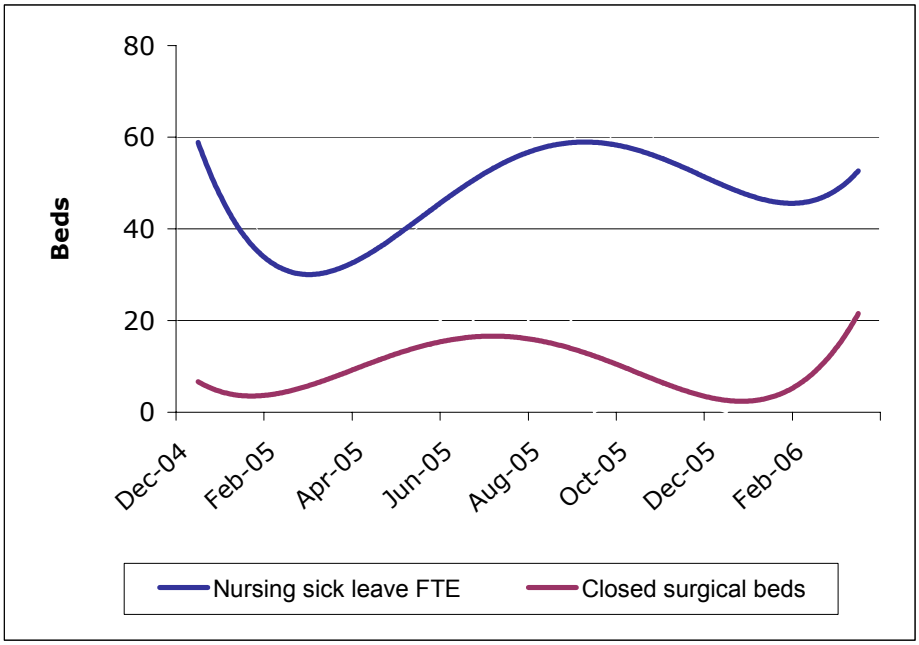
Bed shortages cause 5% of all cancellations and postponements (refer to Figure 19) that represents only 0.5% of theatre bookings.

We were unable to obtain any data as to whether operating theatre sessions had not been scheduled because of bed shortages, however, that is unlikely to be a significant problem because of the volatility of bed management. One hospital CEO told us that there is an impact on elective surgery in winter because of a shortage of beds created by medical patients occupying surgical beds. We could not confirm the CEO's comments because of a lack of data, but we did see a

substantial spike in the number of medical patients in August 2005 occupying surgical or women and children ward beds.

We also performed a comparison between nurses' sick leave and closed beds in Figure 26 and found a significant correlation.

Figure 26: RHH closed surgical beds and nurses' sick leave: December 2004 to March 2006



We determined that bed management does not have a major impact on surgical cancellations or postponements and that whatever limited influence it does have is closely related to availability of nursing staff. There was evidence that there was an impact in winter, but we were unable to quantify the effect because of a lack of data. As stated in Recommendation 5:

> Hospitals should record the reason for any downtime in operating theatres. Management should regularly review summary data as a basis for decisions about resource acquisition and allocation.

5.5 Equipment resources

5.5.1 Background

To avoid delays in elective surgery, theatre equipment must be available, reliable and properly maintained. Funding decisions for medical equipment are part of hospitals' budgets. CEOs have the authority to purchase equipment up to $50 000 (previously $20 000) without reference to the department for approval.

5.5.2 Impact of equipment on elective surgery

Equipment shortages cause 2% of all cancellations and postponements (refer Figure 19), which represents only 0.2% of theatre bookings.

We were unable to obtain any data as to whether operating theatre sessions had not been scheduled because of equipment problems. We considered the possibility that some theatres may have been under-booked because of equipment deficiencies but found no evidence.

Therefore, we determined that equipment failures and shortages had not had a major impact on the provision of elective surgery.

5.5.3 Tendering process

Purchases over $50 000 have to be referred to the Contract Review Committee (CRC), which is comprised of senior DHHS staff. The CRC approves or declines proposals based on a business case submitted by the hospital. Acquisition and replacement of equipment could adversely affect elective surgery throughput if not handled efficiently. We reviewed the CRC process and found that there were no significant delays between the preparation of the business case and approval. This suggested that business processes within the hospital were efficient. We estimated that on average a proposal took less than two weeks from completion until endorsement by the CRC.

However, based on a limited judgment sample examined, there appeared to be significant delays from the time a proposal received CRC endorsement until acceptance of tenders tabled. The following examples were noted:

- coagulation analyser: 224 days
- superficial x-ray therapy system: 217 days.

The CRC itself did not cause lengthy delays when considering business cases. Problems occurred in advertising the tender and in accepting tenders after they closed. There is scope for these timeframes to be reduced.

Recommendation 23

DHHS should review the equipment acquisition process between the initial time of approval by the CRC and completion of the tendering.

5.5.4 Funding replacement equipment

Hospitals track their medical assets and prioritise their replacement based on age and need. The Mersey campus of the NWRH faced a challenge from inheriting aging medical equipment from the previous private operator. To compensate for this, Mersey was allocated an additional $1 million in its first year back within the public sector and additional funds over the next three years.

The LGH indicated that its annual budget for replacing items of equipment is $1 million. However, the list of required equipment was stated to be currently over $12 million. Accordingly, in the view of hospital management, equipment replacement has become critical.

The RHH had an equipment register to track theatre equipment due for replacement. However, availability of funds was considered by management to be a limiting factor. The hospital had a detailed listing of $3 million worth of equipment that in its view needed replacement.

Recommendation 24

Replacement of theatre equipment should be managed to avoid long-term problems.

5.6 Conclusion

We found that management information was inadequate to form a basis for decision-making about resources. Hospitals did not retain sufficient information about the level of or reasons for downtime in operating theatres. We also found that insufficient information was maintained about nurse, specialist and anaesthetist numbers and vacancies.

Hospital theatres were operating well below their practical capacity. There was little evidence of bottlenecks with general nurses, specialists, anaesthetists or equipment. We were also unable to conclude whether or not there was a shortage of theatre nurses or beds, although there were some indications that could be the case.

We did find that processes relating to recruitment and retention of staff had been substantially improved and that hospitals appeared to be adequately staffed.

6 Performance management and reporting

6 Performance management and reporting

6.1 Strategies and objectives

6.1.1 Departmental level

To ascertain whether the department had the correct strategic focus for elective surgery we examined strategies and plans that were in place. We found that the department has an elective surgery action plan that was broken down into nine specific focal points. We looked at the appropriateness of these and concluded that on the whole they were addressing the correct issues, though sometimes lacking in detail, for instance:

- theatre utilisation
- staffing issues
- bed management.

The intent of the elective surgery priority plan was to provide incentives to establish and extend access to elective surgical services across the state. Funding was used to boost existing levels of elective surgical services.

The hospital executive team meets monthly and elective surgery performance was a focus during 2005-06. Elective surgery is a standing item on the agenda and a monthly report provides summarised data relating to elective surgery including, performance for each hospital against targets, theatre throughput and numbers on the waiting list. While we were satisfied that the executive team was monitoring waiting list data, we could not be certain that they regularly referred back to the action plan to ascertain progress toward stated goals. In addition, as noted in section 5, insufficient information was provided to facilitate goal-orientated management of resources.

6.1.2 Hospital level

At the hospital level, only the RHH had a separate strategic plan for elective surgery. LGH and NWRH relied upon the departmental plan. Although the RHH plan was still being developed, it showed significant progress toward completion of key objectives, responsibilities and milestones. In addition, linkages were present between the RHH plan and the departmental plan.

Hospitals should develop their own strategic plans that operate at a lower level than the executive team plan. This would enable hospital managers to calibrate their operational objectives with those at the higher level.

Recommendation 25

All hospitals should develop strategic plans for elective surgery. Any plan developed should link back to the overall departmental strategic plan.

6.2 Performance indicators

6.2.1 Information published by DHHS

DHHS publishes information in its annual report and on the website but the performance information is primarily qualitative in nature.

Quantitative data in the annual report was limited to:

- day surgery rate (elective)
  - day surgery does not tie up beds overnight and reduces the burden on hospitals but there is no comparison against an anticipated goal
- proportion of Category 1 patients admitted within 30 day target for elective surgery
  - does not consider those still waiting on the list or indicate how long patients for each specialty and urgency category can expect to wait.

Recommendation 26

DHHS should publish quantitative data in the annual report and website about patients still on the waiting list and the length of time they could expect to wait.

The DHHS web site contains definitions and quarterly data on waiting lists by hospital. It does not provide any information about expected waiting times for procedures unlike interstate public health systems. For example, on the Victorian health website[23] prospective patients can browse specific procedures by hospital for an indication of waiting times.

Recommendation 27

DHHS should consider expanding the type and timeliness of information about elective surgery available on its website.

6.2.2 Performance indicators at hospitals

In the hospitals there were overall targets set by the department and staff were aware of ongoing performance. During the audit, we met

[23] Victorian Department of Human Services website at http://hnp.dhs.vic.gov.au/wps/portal

with nurse unit managers who informed us that accountability for meeting goals was not pushed down to units or managers. Instead, responsibilities for management statistics sat with the senior management group.

6.3 Conclusion

Strategic plans existed and addressed appropriate issues for the hospitals as a whole but there was scope to develop strategic plans for some individual hospitals.

Published performance information in annual reports and on websites was unsatisfactory.

7 Recent reports

7 Recent reports

Year	Special Report No.	Title
2001	36	Collection of receivables and loans in Tasmanian government departments
2001	37	Archives Office of Tasmania
2001	38	The implementation of Goods and Services Tax in government agencies and local government entities
2001	39	Bank account reconciliations
2002	40	Environmental management and pollution control
2002	41	Keeping schools safe
2002	42	Follow up of performance audits
2002	43	Oral health service: Something to smile about?
2002	44	Managing community service orders
2003	45	Business names and incorporated associations: What's in a name?
2003	46	Leave in government departments
2003	47	Public sector web sites
2003	48	Grants to the community sector
2003	49	Staff selection in government agencies
2003	50	Police response times
2004	-	Ex-gratia payment to the former Governor Mr R W Butler AC
2004	51	Special purpose and trust funds: Department of Health and Human Services
2004	52	Internal audit in the public sector
2005	53	Follow-up audits
2005	54	Compliance audits
2005	55	Gun control in Tasmania
2005	56	TT-Line: Governance review
2005	57	Public housing: Meeting the need?
2005	58	FBT, Payment of Accounts and Bridges
2006	59	Delegations in government agencies, Local government delegations, Overseas travel
2006	60	Building security and Contracts appointing Global Value Management

8 Future projects

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Details of performance and compliance audits that the Auditor-General is considering are:

- Performance audit
  - Training and development
  - Business case for Risdon Prison
  - Follow up of performance audit
- Compliance audits
  - Building security–Phase 2
  - Selected allowances and nurses' overtime
  - *Environmental Management and Pollution Control Act 1994* Level 1 activities