Joint Review of Whanganui District Health Board

29 AUGUST 2007
Caveats

- Recommendations and analysis have been based on data collected during the joint review. In some areas of the review, only limited or incomplete data was available. The recommendations and analysis are limited by the quality of the data that has been provided.

- Recommendations made in this report are not to be taken as formal authorisation or agreement to proceed with 'Service Reconfiguration' activity by WDHB. Should such authorisation be required, 'Service Reconfiguration' protocols with the Operational Policy Framework (OPF) document apply.
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### Summary of recommendations

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<th>Section</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities and services</td>
<td>Whanganui District Health Board (WDHB) work with neighbouring, and other, DHBs in development of service configurations. The Regional Taskforce for Children and Women’s Health Services is a good start in moving in this direction (see further information on this taskforce later in this report).</td>
</tr>
<tr>
<td>Board and committees</td>
<td>The WDHB Board:</td>
</tr>
<tr>
<td></td>
<td>• review the structure, content and process for developing Board agendas</td>
</tr>
<tr>
<td></td>
<td>• develops a robust framework for holding management to account</td>
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<td></td>
<td>• places a greater emphasis on monitoring the financial situation of WDHB; specifically in monitoring progress against achievement of savings</td>
</tr>
<tr>
<td></td>
<td>• makes progress against planned savings a standard item on the Finance and Risk Committee agenda, with a summary published in the full Board agenda finance papers, and that this forms the basis of monthly scrutiny by the Board of the WDHB financial situation</td>
</tr>
<tr>
<td></td>
<td>• considers whether it requires a change in format of reporting, and clearly communicates this with the Chief Executive and Management</td>
</tr>
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<td></td>
<td>• actively pursue measures to ensure it is acting with coherence and unity</td>
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<tr>
<td></td>
<td>• develops and maintains key strategies and performance indicators, which drive reporting to it, and within WDHB management.</td>
</tr>
<tr>
<td></td>
<td>The Board Chair raise issues of confidentiality with Board members, and seeks assurances that confidentiality will be maintained.</td>
</tr>
<tr>
<td>Management structure</td>
<td>• medical and nursing input to the management of WDHB is enhanced by adding the Chief Medical Officer</td>
</tr>
</tbody>
</table>
and Director of Nursing to the Executive Management Team

- consideration is given to adding the Risk, Quality and Commercial Services Manager to the Executive Management Team
- the Chief Medical Officer’s role and accountabilities are clarified, and made clear to all staff
- the WDHB Chief Executive develop a plan to identify managers who may benefit from mentoring, and facilitate the implementation of this plan.

| Links with primary health care | • the primary/secondary interface is reviewed for every service delivered by WDHB, as part of the annual schedule of service reviews
• that the job description for the primary/secondary Director of Nursing position being established contains requirements that ensure the appointee has appropriate skills, knowledge and understanding to facilitate integration between these two sectors
• Job descriptions of all clinical roles include a requirement to facilitate integration with the primary care sector |

| Paediatric and obstetric services | • that WDHB pursue the development of models of care for paediatric and obstetric services that are based around innovative use of workforce, technology, and collaboration with other DHBs. This should take place via the ‘Regional Taskforce for Women’s and Children’s Health Services’
• a plan to establish locally based training programmes for Junior Doctors (particularly registrars and Medical Officers of Special Scale) working in the Whanganui setting should be developed. These will include the protocols for regional services and the use of telemedicine\(^1\) back-up. |

| Alternative delivery of services | • that a project is established to fully investigate potential areas for increasing the use of telemedicine by WDHB. It may be necessary to employ a senior clinician to ‘champion’ this work, and a contracted provider of telemedicine services to provide leadership
• potential for regional development of services other than paediatrics and obstetrics is investigated as part |

\(^1\) In this context, telemedicine refers to the use of technology including, but not restricted to, telephones.
| **Mental health services** | Whanganui DHB increases the number of treatment and relapse prevention plans to 90% of long term mental health clients, in line with national health targets  
Whanganui DHB examines clients who use mental health services for more than two years as to bed day usage, through the “Knowing People Planning Project,” and encourage development of community services  
Whanganui DHB gets an independent analysis of its clinical diagnosis and referral process compared to Northland, Lakes, Tairawhiti, South Canterbury and Southland to identify whether there is an unusually high need for mental health services within the Whanganui population  
WDHB review the application and implications of how the mental health ring fence is applied to its population, noting that it is proposed to review the application of the ring fence as part of the Ministry’s review of the Population Based Formula for funding DHBs  
after the analysis is completed, the appropriate structure to deliver the services should be investigated. |
| **Average Length of Stay/Daycase ratios** | that WDHB review its medical clinical processes, practices and pathways, as part of the annual schedule of service reviews recommended elsewhere in this report. This should include reviewing the criteria it currently uses for determining whether cases should be undertaken as a daycase. |
| **Subsequent Specialist Assessments: First Specialist Assessment ratios** | WDHB work with Wairarapa DHB, and more closely with Primary Health Organisations, to investigate ways to reduce the Subsequent Specialist Assessments: First Specialist Assessment ratios service by service. |
| **Theatre analysis** | planning processes need to be designed or enhanced to ensure that the following aspects are incorporated into the processes: enhanced patient flow through hospital event, increased theatre productivity, better case management including pre operation assessment, and reduction in the number of cancelled cases  
review of theatre utilisation including sessions is required, an increased focus on utilisation of session allocated, hospital wide practices, better theatre list management, processes put in place to ensure |
<table>
<thead>
<tr>
<th>Turnover and sick leave</th>
<th>WDHB incorporate ways to reduce turnover and sick leave into its Human Resources Management Strategic Plan.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiology</td>
<td>WDHB pursue opportunities for further moves towards off-site reading of results, combined with a limited and more cost effective local presence.</td>
</tr>
<tr>
<td>Laboratories</td>
<td>WDHB pursue opportunities for reducing the cost of laboratory services.</td>
</tr>
</tbody>
</table>
| Human Resources and recruitment | The Human Resources (HR) Management Strategic Plan should be redeveloped to provide a greater focus on helping manage to address the following issues:  
  - learning and staff development strategies  
  - how Human Resources capacity and capability issues well be developed to implement a large training programme while maintaining the day to day issues  
  - ways to recruit and retain key staff with a focus on nursing and medical staff  
  - regional collaboration including sharing services and how this would impact on Human Resources strategy |
- robust succession planning to ensure key roles have backup successor
- work force planning that is robust and in line with national and regional initiatives.

An ‘action plan’ that links with the Human Resources Strategic Plan should be developed. This plan would form the basis for the HR department’s annual work, and for assessment of performance against the HRSP. It should include Key Performance Indicators, timeframes and resourcing.

The General Manager is located with Human Resources Department staff, to improve leadership and communication in the team.

<table>
<thead>
<tr>
<th>Information Technology</th>
<th>The revised Information Services Strategic Plan (ISSP) should better reflect the future information technology (IT) needs of WDHB by taking into account the review conducted by HealthMAP, particularly noting:</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>- concern about the number of major projects planned by WDHB, and the impact of this on the WDHB Information Technology department</td>
</tr>
<tr>
<td></td>
<td>- risks of the cost of these projects being underestimated.</td>
</tr>
</tbody>
</table>

An “Action Plan” is prepared annually, that clearly reflects the growth strategy contained in the revised ISSP. This should include, together with other matters; operational budget, project roll out, timeframes for delivery, and performance measurements for outcomes.

WDHB consider leasing information technology hardware rather than outright purchase.

A phased reduction in outsourcing IT services is introduced, to save WDHB an estimated $165,000 in 2007/08 and $180,000 in 2008/09.

<table>
<thead>
<tr>
<th>Quality improvement</th>
<th>WDHB introduce an annual schedule of service reviews for all services, which inputs to the development of its budget and District Annual Plan</th>
</tr>
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<tr>
<td></td>
<td>- an internal audit function is established, focused on efficiency gains and reporting to the Risk and Audit Committee.</td>
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</tbody>
</table>

| Expenditure            | WDHB pursue cost reduction strategies to identify potential savings of at least $300,000 in Senior Medical Officer expenditure, and $170,000 in expenditure on treatment disposables  |
• a plan be devised to provide more generalist Senior Medical Officer services. This plan should involve other larger DHBs for advice and practice-level purposes, diploma and certificate courses and specific telemedicine training and opportunities

• WDHB review the number of Psychiatrists as part of its investigation of the appropriate structure to deliver mental health services

• WDHB fully investigate potential for achieving savings in expenditure on nursing, other clinical and client costs, hotel services and professional fees and expertise.

**Buildings**

<table>
<thead>
<tr>
<th>WDHB:</th>
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<tbody>
<tr>
<td>• commission the 'campus masterplan', to create potential savings through consolidation and disposal of surplus buildings and land</td>
</tr>
<tr>
<td>• review the works contract, due for renewal 2008, in association with the campus masterplan development</td>
</tr>
<tr>
<td>• aim to dispose of responsibility for surplus buildings and reduce the costs of care and maintenance.</td>
</tr>
</tbody>
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## Summary of financial impacts

<table>
<thead>
<tr>
<th>Potential Saving</th>
<th>Lower Range</th>
<th>Higher Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover</td>
<td>77,000</td>
<td>550,000</td>
</tr>
<tr>
<td>Sick Leave</td>
<td>302,000</td>
<td>312,000</td>
</tr>
<tr>
<td>Theatre</td>
<td>137,000</td>
<td>137,000</td>
</tr>
<tr>
<td>Paediatrics</td>
<td>382,000</td>
<td>382,000</td>
</tr>
<tr>
<td>IT</td>
<td>165,000</td>
<td>180,000</td>
</tr>
<tr>
<td>Labs</td>
<td>100,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Radiology</td>
<td>200,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Treatment Disposables</td>
<td>170,000</td>
<td>170,000</td>
</tr>
<tr>
<td>SMOs</td>
<td>300,000</td>
<td>300,000</td>
</tr>
<tr>
<td>Buildings</td>
<td>136,000</td>
<td>136,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,969,000</strong></td>
<td><strong>2,567,000</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Difference in expenditure per capita to comparable DHBs</th>
<th>Lower Range</th>
<th>Higher Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental Health</td>
<td>3,500,000</td>
<td>5,200,000</td>
</tr>
</tbody>
</table>
Introduction

Purpose and background to the joint review

The purpose of the joint review is primarily to identify how WDHB can fund appropriate services and live within its means.

The decision to embark on a joint review was made by WDHB and the Ministry of Health (the Ministry) in May 2006 after it was recognised that ongoing financial difficulties were systemic and that WDHB required assistance to rectify them. For a number of years, WDHB has planned a deficit in its District Annual Plan (DAP), but then has not been able to meet this plan and reported a deficit larger than forecast.

The trigger for the joint review was a change from WDHB indicating a breakeven financial position in late 2005 to a $5m deficit in March 2006. An application was put to the National Capital Committee (NCC) in December 2005 for capital investment in a significant hospital rebuild – known as the ‘Health Services Redesign’ (HSR). The business case submitted in support of this application planned for the DHB to achieve a breakeven financial position (following write-offs). The NCC recommended the business case for approval by Ministers, in December 2005. WDHB subsequently submitted a DAP in March 2006 that planned for a deficit for the 2006/07 year. In negotiations with the Ministry, WDHB indicated it could not produce a DAP with a breakeven financial position. This deficit meant the HSR business case no longer met the NCC criteria for affordability.

Approval of the HSR was conditional on the joint review (as well as a number of other conditions). The Minister of Health announced on 28 June 2006 that $29.8m had been reserved for the redesign of Whanganui hospital and gave permission for WDHB to develop preliminary designs. However the Minister withheld full Ministerial approval, conditional upon a number of factors, including “a Joint Review Team completing and reporting on a DHB-wide review (both funder and provider) that includes a health services configuration review (including links with MidCentral and Taranaki DHBs) and involves health service planners as required”.

Terms of Reference

Terms of Reference (TOR) were developed jointly by the Ministry and WDHB to define the purpose, scope and objectives for the review, as well as governance and timelines. They were agreed in July 2006 and formally signed by both parties in August 2006.

The scope falls within four categories: service need, service configuration, governance and management, and proposed facility reconfiguration.

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2 The NCC affordability criteria require that over the life of the project the DHB can breakeven given its forecast revenue, or, if not the project makes an acceptable contribution to the DHB’s long-term strategy to breakeven.

Service Need

- review Health Needs Assessment information (including the 2005 Health Needs Assessment) to establish the current and projected needs of the Whanganui population
- review population based funding parameters and planning assumptions for out-years
- examine the inter-district flows in each service and the drivers for out of district services
- report on the strategy of WDHB’s Funder Division in choosing the best value services (given current and projected funded levels) for delivery in the district, and the contribution the decisions are making towards the health outcomes of the population
- identify expenditure by major service group as a percentage of population based funding compared to other district health boards, particularly those of like demographics (Lakes, Northland and Tairawhiti)
- identify service utilisation including intervention rates by major service group compared to other district health boards, particularly those of like demographics and deprivation levels (Lakes, Northland and Tairawhiti)
- assess the impact of primary care and other non-secondary services on the need for secondary services and the future requirements for in-patient services in Wanganui
- confirm the level of mental health need of the Whanganui district domiciled population.

Service Configuration

- identify the 'range and mix' of health and disability services required to service the population health needs and service location preferences
- identify the 'range and mix' of health and disability services which are clinically and financially viable within the projected funding path for WDHB
- identify efficient service size for service units, while still providing attractive and sustainable clinical roles
- consider which services would be more efficiently provided by other district health boards and vice versa (which population outflows would be better provided locally) and the impact on service access, provision and viability
- identify all possible efficiency gains and cost/demand control mechanism available to WDHB as a Funder and as a Provider.
**Governance and Management**

- review current structures and their impact on WDHB's projected financial position, and suggest an appropriate organisational structure, including the roles of clinicians.

**Proposed Facility Reconfiguration**

- review the configuration and future adaptability of the proposed facility to cope with changes in demand or service provision.

**Joint Review Team**

The Ministry and WDHB both committed personnel resources to undertake the review.

The governance structure reflects the joint nature of the review. The review was undertaken by a Joint Review Team, with oversight from a joint Sponsors Group.

The Joint Review Team consisted of managers from WDHB and the Ministry. External consultants were also used to provide specialist knowledge.

The Sponsors Group had oversight of the review and its direction. Membership of the Sponsors Group consists of:

- Anthony Hill, Deputy Director-General Sector Accountability and Funding Directorate (SAFD) of the Ministry
- John Hazeldine, Manager Finance, SAFD
- Memo Musa, WDHB Chief Executive Officer and
- initially Patrick O'Connor, then Kate Joblin, WDHB Chair.

External consultancy requirements and costs were shared on a 50:50 basis between the Ministry and WDHB.

**Approach**

A series of ‘reconnaissance’ interviews were initially held to provide Ministry members of the review with an overview of WDHB’s operations and help define the nature of analysis that would be required. The review interviewed WDHB Board members, management and clinical staff, as well as community health providers and neighbouring DHBs.

The interviews identified issues to pursue and gave the Review a view of the competency of the Board and management. Issues to emerge during the interviews, and subsequently followed up, included problems with paediatric and obstetric services, changes in management personnel, and a lack of cohesion within the Board.

Following these interviews, the joint review was structured into two phases:
• phase one focused on reviewing the assumptions of the HSR Business Case, culminating in a report to the Minister of Health in October 2006
• phase two followed, encompassing the remaining terms of reference.

The approach taken for both phases was to review documentation and data provided by WDHB, and available from the Ministry, identify points for discussion, and follow this up with face to face meetings. Where possible, WDHB data was compared to other DHBs with similar characteristics (eg: similar size, demographics, levels of need). Both WDHB and Ministry members of the review team produced and collated data for analysis. Ministry members of the team held discussions with a number of WDHB management and staff, as well as external stakeholders.

The information and data was analysed by Ministry members of the review team, and by external consultants.

• During phase one the review was assisted by an external consultant with clinical expertise (Mike Corkill, Merlin Consulting). Mike Corkill is a Consultant Rheumatologist, who has held senior health management positions, and has worked on a number of health planning and analysis projects. A report was produced in October 2006, which formed the basis for the report to the Minister in the same month.

• Another external consultant (Graham Aitken) was commissioned to assist the review during phase two of the joint review. Graham Aitken has worked as a hospital General Manager, has been a Ministerial Advisor to a DHB, and has worked on various projects in the health sector. Reports were produced in December, January and February.

• Advice on WDHB’s information technology strategies was commissioned from an external company with specialist knowledge of information technology in the health sector (Health Map Limited).

The analysis findings were then discussed jointly, and findings and recommendations reached jointly. In some cases the review findings are based on anecdotal or subjective information.

An alternative approach was taken to help WDHB develop sustainable paediatric and obstetric models of care. A national workshop was organised by the review team in association with the Ministry’s Chief Advisor for Child and Youth Health. It was attended by WDHB, other District Health Boards and health professionals from around the country, and a range of Ministry staff. The workshop focused on sharing knowledge and developing practical solutions for consideration by WDHB.
Community and Health Need

DHB environment

The District

The map below shows the district covered by the Whanganui District Health Board. The district includes the Wanganui and Rangitikei Territorial Authority areas, and the Ruapehu Territorial Authority area Wards of Waimarino and Waiouru – known as South Ruapehu.

The district covers a total land area of 9,742 square kilometres, much of which is sparsely populated, mountainous terrain with a few densely populated centres such as Wanganui City, with a population of 39,430 and Marton (4,750). Smaller towns such as Waiouru (1,640), Taihape (1,800), Bulls (1,760), Ohakune (1,380) and Raetihi (1,040) all have populations of less than 2,000 (Census 2001, Statistics New Zealand). The rest of the population is scattered in and around small rural centres.

Demographic Profile

The WDHB district is home to a population of 63,600 (Census 2001, Statistics New Zealand). Compared to the New Zealand average, the population of Whanganui is characterised by a large percentage of Māori (22.2%), a small but growing population of Pacific Island people (2%), a higher percentage of young people under 15 years of age (24%) and a relatively large percentage of older people (14%).

The district is also home to a higher percentage of children and young people, with 24.3% less than 15 years of age (as compared to 22.7% for New Zealand), of which 35.0% are of Māori ethnicity. This reflects the younger Māori population structure as in the rest of the country.

Whanganui has a higher than average population of older aged citizens – with 14.3% older than 65 years of age (compared to 11.9% for the rest of the country in 2001). It is forecast that in the next 50 years, 25% of the New Zealand population will be older than 65 years of age. As older people, like young people, are high health care
users, this demographic change has real implications to future provision of health services.

The following two graphs show the age, gender and ethnicity profile of the population of the Whanganui district.

The WDHB population profile is changing. There is a projected slow decline in population numbers, whilst at the same time the proportion of people over 65 years old is increasing. These changes provide some specific challenges for health funders, planners, and providers of services. The following two graphs demonstrate these population projections.

WDHB has no district specific disability information, but can assume from the National Disability Survey (2001) that around 13,780 people have a disability. Of these, approximately 2,950 are Māori and 150 are Pacific Island people.
<table>
<thead>
<tr>
<th>Age group</th>
<th>Estimated number of people with disability</th>
<th>Māori</th>
<th>Pacific</th>
<th>Non-Māori, non-Pacific</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 14 years</td>
<td></td>
<td>780</td>
<td>40</td>
<td>950</td>
<td>1,770</td>
</tr>
<tr>
<td>15 – 44 years</td>
<td></td>
<td>1,170</td>
<td>60</td>
<td>2,170</td>
<td>3,400</td>
</tr>
<tr>
<td>45 – 64 years</td>
<td></td>
<td>660</td>
<td>10</td>
<td>2,890</td>
<td>3,590</td>
</tr>
<tr>
<td>65 years and over</td>
<td></td>
<td>340</td>
<td>10</td>
<td>4,670</td>
<td>5,020</td>
</tr>
</tbody>
</table>

Whanganui District Health Board, estimated number of people* with disabilities by age and ethnicity, 2001. Total population residing in households and residential facilities.

**WDHB Strategic Goals and initiatives**

**Vision, mission and values**

The vision of WDHB is “better health and independence”. Its mission is “to improve health and independence through a responsive and integrated health system”. WDHB is guided by the following set of values: co-operation, social equality, adaptability, development, Integrity, responsibility and respect.

**Key Health Issues**

In its most recent Health Needs Assessment, WDHB identified the following key health issues.

- a projected decreasing population which is expected to drop 9.5% from 64,900 to 59,270 by 2021 (New Zealand Statistics medium projections)

- a high proportion of Māori, currently 22%, which will increase to 25%, from 14,120 to 17,860 by 2021

- a high proportion of older people, currently 14.3%, which will increase to 19.8%, from 9200 to 13,020 by 2021

- Whanganui is a district of high deprivation overall

- 52% of WDHB’s population live in the deprivation deciles eight to 10 as do 70% of Māori in the region (see note).

(Note: An index of deprivation calculated by Statistics NZ based on household income, access to car and telephone, household crowding, employment, home ownership status and people <60 in a single parent family. Decile 1 least deprived, decile 10 most deprived.)

![Whanganui District Health Board population projections 2001 to 2026](chart.png)
WDHB identifies its district’s high level of deprivation as the biggest factor in the health of the district. The district experiences lower socioeconomic status and higher levels of disparity compared to the rest of New Zealand. Around 56% of the district’s population live in areas classified as decile eight, nine and 10\(^4\). The district’s median income is $15,900, lower than the national median income of $18,500.\(^5\) The large majority of the community is disadvantaged with ethnic inequalities (within the region) ranking only 10th out of 21 district health boards.\(^6\) The district has higher rates of death and hospital admissions compared to the rest of New Zealand. Māori in the district have higher rates of death (1.6 times) and hospital admission rates (1.3 times) than non-Māori.

According to WDHB, the growing number of older people will place an increasing burden on health services as health problems associated with older people will also increase.

The major health problems in the district are:

- cardiovascular (heart) disease
- lung disease
- cancer
- diabetes
- health of Māori in the district.

Many of these health problems are considered to be avoidable due to factors such as lifestyle, prevention and early detection and treatment of conditions by a general practitioner. Whanganui has a high rate of hospital admissions from these conditions and the rates are rising.

![Hospitalisation rates for 'Avoidable conditions'](#)

Relative to New Zealand Whanganui has higher rates of:

- smoking especially in Māori where 49% smoke
- smoking in our youth especially females where 29% of 14 year olds smoke regularly
- heart disease with high mortality and hospitalisation rates especially in non-Māori

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\(^4\) New Zealand Deprivation 2001 (NZDep01) deprivation scale.
\(^6\) Public Health Intelligence Unit, 2005
• respiratory infections in Māori children, 1.5 times that of non-Māori and 1.3 times that national rate
• hospitalisations of children from injury, 1.3 times the national rate
• mortality from diabetes in Māori is six times the rate for non-Māori and 1.4 times the national rate for Māori
• colorectal (bowel) cancer in non-Māori
• hospital admissions for dental conditions.

**Strategic Priorities**

WDHB identified the following three strategic population goals during the development of its 2005-2010 District Strategic Plan after consultation with the Whanganui community:

<table>
<thead>
<tr>
<th>Population Goals</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving Health</td>
<td>• Focus on prevention strategies, health promotion and education&lt;br&gt;• Ensure access to appropriate and timely/early intervention to improve health&lt;br&gt;• Achieve seamless integrated service delivery and break down barriers, especially across primary and secondary services&lt;br&gt;• Undertake activities with other agencies (local territorial authorities, community organisations and primary care providers etc) to help improve health&lt;br&gt;• Achieve improved health status in target areas</td>
</tr>
<tr>
<td>Reducing Inequalities</td>
<td>• Implement He Korowai Oranga through Whakatataka: Maori Health Action Plan&lt;br&gt;• Improve Māori health status in target areas&lt;br&gt;• Maintain access to services for rural people&lt;br&gt;• Reduce avoidable hospital admissions for target groups&lt;br&gt;• older people&lt;br&gt;• children&lt;br&gt;• Māori and Pacific peoples&lt;br&gt;• Reduce affordability/cost as a barrier to accessing services&lt;br&gt;• Undertake activities with other agencies (local territorial authorities, community organisations and primary care providers etc) to help reduce inequalities.</td>
</tr>
<tr>
<td>Promoting Recovery, Wellbeing and Independence</td>
<td>• Ensure recovery models/approaches are central all health services and especially mental health services.&lt;br&gt;• Ensure restoration and independence models/approaches are central to all services and especially disability support services&lt;br&gt;• Undertake activities with other agencies (local territorial authorities, community organisations and primary care providers etc) to promote community wellbeing.&lt;br&gt;• Promote family, whanau, hapu and community wellbeing.</td>
</tr>
</tbody>
</table>
Facilities and the services provided for WDHB population

There are two Primary Health Organisations (PHOs) in the WDHB region: Whanganui Regional Primary Health Organisation (Whanganui Regional PHO) and Taumata Hauora Trust Primary Health Organisation (Taumata Hauora Trust). Whanganui Regional PHO has been recognised by the Minister as a particularly effective organisation. PHOs in the WDHB region appear to be fully applying the philosophy underlying the Primary Health Care Strategy.

WDHB’s Provider Division is responsible for the provision of public hospital, health and disability support services to the community in line with devolved contract agreements and funding. A comprehensive range of services are provided by WDHB through Wanganui Hospital and three rural health centres (Rangitikei, Taihape, Waimarino). Wanganui Hospital is a level 4 secondary hospital, providing acute and elective services. The hospital provides a level 3/4 Emergency Department, level 1/2 Critical Care Unit and level 2 Neo Natal Unit. Mental health facilities include acute (Te Awhina), extended secure forensic services (Stanford House), intensive rehabilitation and extended care (Delta), alcohol and other drugs service, community team (Newcombe), child, adolescent and family services, and community day services. WDHB refers tertiary services mainly to Capital and Coast and MidCentral DHBs.

See Appendix Two for a list of the services provided by Wanganui Hospital, rural health centres and within the community.

Finding

The Health Needs Assessment (HNA) appears to be comprehensive and satisfactory. The review considers the configuration of services that WDHB has committed to delivering locally, and the Board’s strategic vision and priorities, to be reasonable given the population characteristics and the health need identified. WDHB face difficulties in maintaining the service configuration locally, due to recruitment and retention issues. An observation of the review is that WDHB appears to have substantially more of a focus on its hospital facilities, than on the primary and secondary services as a whole. However, recent WDHB initiatives to improve integration with the primary sector suggest that the focus is moving towards a more integrated view.

Recommendation

WDHB work with neighbouring, and other, DHBs in development of service configurations. The Regional Taskforce for Children and Women’s Health Services is a good start in moving in this direction (see further information on this taskforce later in this report).

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Organisational Structure

**Board and Committees**

The WDHB Board consists of eleven members: seven elected and four appointed by the Minister. The Board has three statutory sub-committees (with membership from the Board and community) as well as a Risk and Audit Committee and Remuneration Committee.

The Board sees its role as concentrating on setting policy, approving strategy, and monitoring progress toward meeting objectives. Management's role is to implement policy and strategy. The Board has clearly distinguished these roles by ensuring that the delegation of responsibility and authority to the Chief Executive Officer (CEO) is concise and complete.

The review met with the Executive Management Team (EMT), and with most members of the WDHB Board. Specific attention was given to assessing how the DAP and other planning mechanisms are used by the Board to direct its Executive Management Team, and conversely, what information is provided by the Executive Management Team to inform the Board.
Findings

At the time of the fieldwork being undertaken, (mid 2006 to early 2007), it was the observation of the review that Board Members did not have a clear framework for holding management to account. Mechanisms such as the Board agenda did not appear to be supporting robust assessment of management performance.

We would expect the DHBs deficit, and actions to reduce the deficit, should be a clear top priority for the Board. However, this did not appear to be the case. Papers on progress in achieving savings to reduce the deficit had been produced for the Board by the Chief Financial Officer (CFO). These showed the financial position, savings that can be made to reduce the deficit (from an original deficit of around $5 million to the current projected deficit of $2.4 million), and progress against these savings. But, there was not a regular report focused on reporting against each of the proposed savings.

There appeared to be some confusion between the Board and the EMT about the format of financial reporting that was provided. The EMT had run sessions with the Board on reporting, which had not resulted in any significant change to reporting format. Despite this, some Board Members interviewed suggested that they would have found different reporting helpful. They were under the (incorrect) understanding that the format of reporting is dictated by the Ministry.

The review was made aware of issues with maintaining confidentiality of Board business. In our view this may have led to a degree of reluctance within the Board to discuss controversial or difficult issues. We considered that, in order for the Board to function effectively, steps needed to be taken to ensure confidentiality of Board business.

Our interviews with the Board and Managers suggested there were factions on the Board. As a result, there was a lack of coherence within the Board, and at times between the Board and WDHB management. The confidentiality issues may have been a symptom, or cause, of this.

Recommendations

The WDHB Board:

- reviews the structure, content and process for developing Board agendas
- develops a robust framework for holding management to account
- places a greater emphasis on monitoring the financial situation of WDHB; specifically in monitoring progress against achievement of savings
- makes progress against planned savings a standard item on the Finance and Risk Committee agenda, with a summary published in the full Board agenda finance papers, and that this forms the basis of monthly scrutiny by the Board of the WDHB financial situation.
• considers whether it requires a change in format of reporting, and clearly communicates this with the Chief Executive and Management

• actively pursues measures to ensure it is acting with coherence and unity

• develops and maintains key strategies and performance indicators, which drive reporting to it, and within WDHB management.

The Board Chair raises issues of confidentiality with Board members, and seeks assurances that confidentiality will be maintained.

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**Board Advisor and increased monitoring**

Our interviews also indicated some lack of understanding by the Board of its key roles and responsibilities. For instance, some Board members did not appear to appreciate their responsibility to ensure WDHB lives within its means.

According to legislation, the collective duties of a Crown Entity board include ensuring that: ⁸

- the entity acts consistently with legislative objectives, functions, statement of intent and output agreement (if any)
- functions are performed efficiently, effectively and consistently with the spirit of service to the public
- the entity operates in a financially responsible manner. This requires it to prudently manage its assets and liabilities, endeavour to ensure its long-term financial viability, and act as a successful going concern.

The status of WDHB on the DHB Monitoring and Intervention Framework (MIF) was moved to “intensive monitoring” in November 2006. This move was prompted by concerns around ongoing financial performance and recurring difficulties with clinical sustainability facing the DHB. The effect of this downgraded status is that the WDHB is more intensively monitored by the Ministry.

In January 2007 a Board Advisor was appointed to:

- observe the decision-making processes, and the decisions of the board
- assist the board in understanding the policies and wishes of the Government so that they can be appropriately reflected in board decisions
- advise the Ministry on any matters relating to the DHB, the board or its performance.

The Board Advisor will also specifically focus on the following specific areas with the Board:

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• why the DHB finds itself in its current deficit position and whether there are lessons to be learnt and/or processes to be developed to address the cause (eg, board capacity, changes to key performance indicators and monitoring regime)
• what the board now plans to do to control the deficit going forward
• whether those measures and plans are viable
• any other areas of the board’s operation or its relationship with management that may need addressing.

**Finding**

The appointment of the Board Advisor raises the opportunity for the Board to improve management of accountability, by more clearly defining the information given to the Board and establishing more robust reporting against the deficit and other priorities, as recommended previously.

See Appendix 11 for a progress report from the Board Advisor.
The Chief Executive works with an EMT to provide high level leadership. The EMT consists of the:

- Chief Executive
- Corporate Services Manager
- General Manager Public Hospital and Health Services
- Media and Communications Advisor
- General Manager Human Resources
- General Manager Health Planning, Improvement and Funding
- Advisor Māori Health
- Advisor Māori Health

A second tier of Senior Management (SMT) sits below the EMT. Some members of the EMT also sit on the SMT.

Clinical input to EMT is currently communicated via the General Manager Public Hospital and Health Services. Attendance at Provider Division meetings is considered to provide sufficient opportunity for the Chief Medical Officer and Director of Nursing to provide input to management of the DHB. Input from primary care, general practitioners and nursing is provided through the General Manager Health Planning Improvement and Funding.
Findings
The review found variable competencies in WDHB Management, as can be expected for any similar organisation. We believe that some WDHB managers would benefit from mentoring, to increase their level of knowledge and expertise. Experienced managers from other DHBs may be in a suitable position to provide mentoring.

The review considers that improvements should be made to the structure of the EMT, to ensure a greater level of medical and nursing, and quality assurance input. The advice received from Graham Aitken is that the current arrangements for high level clinical involvement in the EMT may create the perception that this type of opinion is not valued, and may affect buy-in to EMT decisions from clinical staff.

The review also notes the absence of the Risk, Quality and Commercial Services Manager from the EMT. Given the issues relating to quality and risk management that have emerged over the course of this review, and an inspection of WDHB recently conducted by HealthCERT which found a number of issues with the DHB’s quality and risk management systems and planning, the review suggests it may be beneficial for there to be dedicated representation of quality and risk management at EMT level.

The review’s discussions with the Chief Medical Officer (CMO) and managers highlighted different understandings around whether the CMO reports to the General Manager Public Hospital and Health Services, or directly to the CEO.

Recommendations

- medical and nursing input to the management of WDHB is enhanced by adding the Chief Medical Officer and Director of Nursing to the Executive Management Team

- consideration is given to adding the Risk, Quality and Commercial Services Manager to the Executive Management Team.

- the Chief Medical Officer’s role and accountabilities are clarified, and made clear to all staff

- the WDHB Chief Executive Officer develop a plan to identify managers who may benefit from mentoring, and facilitate the implementation of this plan.
Service planning

According to the WDHB District Annual Plan (DAP) 2006/07, service planning, development and funding allocation is guided by:

- the district health board Health Needs Assessment 2005 (HNA)
- the district health board Prioritisation and Decision-Making Policy for Health and Disability Support Service Changes, reconfigurations and funding of new services which provides the direction for prioritisation processes and procedures

Prioritisation processes and procedures are informed by the use of the Health Equity Assessment Tool and Reducing Inequalities Intervention Framework. The Health Equity Assessment Tool is applied during the evaluation of proposals for new service initiatives submitted to the Funding Evaluation Committee. Planning and funding is carried out in accordance with national policies, such as the Nationwide Service Framework which sets out the criteria for access to services.\(^9\)

**Findings**

The review undertook a high level review of the HNA, and the effectiveness of WDHB’s service planning in meeting the identified needs, and other goals of the DHB. It is the review’s opinion that the HNA represents an appropriate review of the needs of Whanganui district. WDHB service planning appears to generally meet the identified community need and its other goals\(^{10}\) (although we recommend that improvements can be made in regularly reviewing how services are delivered, as noted elsewhere in this report).

The review did not look indepth at service planning from an inequities perspective. The assumption was made that given its key strategies have a strong focus on inequalities, this is integral to its service planning. WDHB’s intention to use the Health Equity Assessment Tool and Reducing Inequalities Intervention Framework in prioritisation of service planning certainly supports this assumption.

**Mix between Inter District Flows and locally delivered services**

WDHB informed the Review that a significant number of the procedures are delivered by MidCentral and other DHBs. WDHB pays a large amount of money to these DHBs on behalf of its population, for these services. In 2005/06, WDHB received $8.5 million in Inter District Flow (IDF) payments in, and spent $23.2 million in IDF outflow payments.

There are high levels of delivery of some specialties to the WDHB population, compared to neighbouring DHBs MidCentral and Taranaki. This can be seen by comparing Standardised Discharge Ratios (SDRs). SDRs are ratios that enable a

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\(^9\) WDHB District Annual Plan 2006/07, p 25.
\(^{10}\) Merlin consulting Limited, “Clinical Analysis: Joint Review Whanganui District Health Board and Ministry of Health,” October 2006, pg 4
reliable comparison of intervention rates between DHBs. An SDR is the ratio between the number of observed cases and the number of expected cases. The number of expected cases is calculated by taking the national rate and applying it to the DHB’s population taking into account age, sex, social deprivation and ethnicity.

If all DHBs were providing services at the same level, they would all be at 1.0. A rate higher than 1.0 indicates that the DHB is providing more than the national rate in New Zealand, and a rate lower than 1.0 indicates that the DHB is providing less than the national rate in New Zealand. A rate of 1.0 indicates that the DHB is providing the New Zealand national rate.

SDR’s are calculated using data of DHB domiciles, rather than DHB of service (ie: shows the services received by DHB populations – most, but not all of which will have been received at the home DHB).

The table below compares SDRs for the three DHBs, by specialty. This shows significantly higher levels of delivery for the WDHB population, compared to neighbouring DHBs, for:

- Dental / Oral Maxillofacial
- General Surgery
- Gynaecology
- Orthopaedics
- Vascular **

It also shows a low level of access for paediatric surgery.

<table>
<thead>
<tr>
<th>Specialty</th>
<th>2005/06 Numbers of operations (1)</th>
<th>WDHB</th>
<th>MidCentral</th>
<th>Taranaki</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cardiology</strong></td>
<td></td>
<td>0.74</td>
<td>0.74</td>
<td>0.87</td>
</tr>
<tr>
<td>Cardiothoracic Surgery</td>
<td></td>
<td>0.79</td>
<td>0.79</td>
<td>0.90</td>
</tr>
<tr>
<td><strong>Dental / Oral Maxillofacial</strong></td>
<td></td>
<td>1.74</td>
<td>0.64</td>
<td>1.01</td>
</tr>
<tr>
<td>ENT</td>
<td></td>
<td>1.15</td>
<td>1.07</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>General Surgery</strong></td>
<td></td>
<td>1.42</td>
<td>0.82</td>
<td>1.01</td>
</tr>
<tr>
<td>Gynaecology</td>
<td></td>
<td>1.70</td>
<td>1.05</td>
<td>0.86</td>
</tr>
<tr>
<td>Neurosurgery **</td>
<td></td>
<td>0.63</td>
<td>0.90</td>
<td>0.45</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td></td>
<td>0.96</td>
<td>0.74</td>
<td>1.29</td>
</tr>
<tr>
<td>Orthopaedics</td>
<td></td>
<td>1.43</td>
<td>0.83</td>
<td>0.96</td>
</tr>
<tr>
<td>Paediatric Surgery</td>
<td></td>
<td>0.69</td>
<td>0.93</td>
<td>1.09</td>
</tr>
<tr>
<td>Plastics</td>
<td></td>
<td>0.97</td>
<td>0.85</td>
<td>0.84</td>
</tr>
<tr>
<td>Urology</td>
<td></td>
<td>1.14</td>
<td>1.18</td>
<td>0.94</td>
</tr>
<tr>
<td><strong>Vascular</strong></td>
<td></td>
<td>1.97</td>
<td>1.26</td>
<td>0.73</td>
</tr>
</tbody>
</table>

** Due to the low numbers of events in the “core” group of operations chosen for these specialties, the SDRs have been calculated for three years data (2003/04 – 2005/06)

It is important to note that these SDRs are indicative only and have some limitations. See Appendix Five for a full explanation of how the SDR data was calculated, and factors to consider when interpreting the data.
The Review discussed the appropriateness of WDHB’s population receiving a higher level of services than neighbouring populations, at a high cost, when the DHB is not able to break even financially. WDHB is in the process of considering options around ‘disinvestment’, where procedures that WDHB has the capacity to provide for its population, but which are currently provided by other DHBs (and paid for as an IDF outflow) are returned to WDHB. This would result in the same level of procedures being performed by WDHB, and fewer procedures being produced by other DHBs, and potential savings estimated at up to $600,000. However, it would also have the likely impact of making elective surgery targets more difficult to achieve. Achievement of elective service targets will require cooperation with the primary care sector and careful application of accepted thresholds for intervention.

**Finding**

The SDR data tends to indicate that some of WDHB’s population is being treated by other DHBs (as IDFs), possibly at the expense of the populations of the other DHBs. This should be further investigated by WDHB as part of its ongoing work in this area.

The Review considers that WDHB needs to put focus on building its reputation with the public and referring General Practitioners, to encourage greater use of its services.

The Ministry's Service Analysis team is investigating regular production of comparative intervention rates broader than elective orientated SDRs, to provide comparative information for DHBs and future reviews.

**Links with primary health**

There are two Primary Health Organisations (PHO) in the WDHB region: Whanganui Regional Primary Health Organisation (Whanganui Regional PHO) and Taumata Hauora Trust Primary Health Organisation (Taumata Hauora Trust). Whanganui Regional PHO has been recognised by the Minister as a particularly effective organisation.

The Review’s assessment of links between secondary and primary health was limited. The Review met with management of both PHOs, and gave consideration to the extent to the primary/secondary mix of service delivery.

**Findings**

Our discussions with the PHOs suggested that their interface with WDHB needs to be improved. Collaboration and planning between the PHOs and WDHB has fluctuated. When interviewed, the PHO management expressed a need for closer coordination through the preparation of annual planning documents.

We are pleased too see this is now taking place, with involvement of both PHOs in the Provider Division’s Annual Planning process for 2007/08. Other recent initiatives by WDHB have been improving this interface with the primary sector, as noted below:
• establishment of a joint Emergency/Whanganui Accident and Medical Department clinical forum
• a joint working group to identify opportunities for further collaboration between Primary and Secondary care
• establishing a Director of Nursing across both Primary and Secondary Care
• integration of nursing workforce and sharing of resources
  • rotation of New Graduate Nurses through Primary and Secondary care, including Mental Health
  • sharing of training and education resources, including Educators and facilities
  • utilisation of Nursing specialists throughout both Primary and Secondary care (e.g. Diabetes Nurse, Wound Care)
• project established for development of electronic report and supporting processes to better identify high needs Secondary Care Patients for follow up and management in Primary Care
• joint working group to identify best opportunities for service provision under either Primary or Secondary care
• continued work with General Practitioner (GP) Liaison position; involvement in Outpatient referrals process
• WDHB funds Whanganui Regional PHO to develop a Nurse Practitioner Pathway for Nurses working in rural areas. This is funded through the rural premium contract (rural workforce development and reasonable roster). The work was led by the Primary Nurse Leader (employed by the PHO at that time) and included a workshop by the Rural Institute of Health. Two people were identified as being interested in progressing down the pathway to Nurse Practitioner. One person is still working towards the qualification. What was identified that in fact there is no mechanism or willingness for Nurses to be supported by their employers (GPs) to train and that at the time there was not a willingness by the Nurses in the main themselves to embark on any training towards Nurse Practitioner. One person, located in Waimarino, is still working toward certification and is still 2-3 years away
• WDHB worked with Whanganui Regional PHO to fund a nurse leadership role in primary care and set up a Practice Nurse’s Forum. The latter is still operational and linked to the primary health organisation.

Some of these initiatives are exploring options for better integrating the primary and secondary sectors in delivering services. The review commends this work, but suggests that there is scope for further enhancing the primary/secondary integration in service delivery.

Recommendations

• the primary/secondary interface is reviewed for every service delivered by WDHB, as part of the annual schedule of service reviews

• that the job description for the primary/secondary Director of Nursing position being established contains requirements that ensure the appointee has appropriate skills, knowledge and understanding to facilitate integration between these two sectors
job descriptions of all clinical roles include a requirement to facilitate integration with the primary care sector

Range and mix of services

*Community and primary sector services*

The following community and public health services are available to the WDHB population.

- assessment, treatment and rehabilitation
- occupational therapy, physiotherapy, district nursing, dietetics, social work and orthotics
- specialist community nursing services
- loan equipment
- short-term help
- respiratory, cardiac and diabetes education and management
- school-based nursing
- well child services
- sexual health service
- vision and hearing screening
- public health services
- population-based health promotions activities, for example, Smokefree, injury prevention and mental health awareness.

*Hospital based services*

WDHB’s planning assumes full service secondary delivery in the following areas:

- general medicine
- general surgery
- orthopaedics
- paediatrics
- obstetrics and gynaecology
- emergency department

These services are supported by

- anaesthetics
- radiology
- pathology
There were almost 6,000 patient discharges in 2005/06, equating to 5251 case weights.

Number of discharges of patients from Whanganui DHB hospitals, with case-weighted totals, by surgical service. *

<table>
<thead>
<tr>
<th>Surgical service</th>
<th>Patient Numbers</th>
<th>Case Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ear, nose and throat</td>
<td>262</td>
<td>290</td>
</tr>
<tr>
<td>General surgery</td>
<td>2463</td>
<td>2527</td>
</tr>
<tr>
<td>Gynaecology</td>
<td>473</td>
<td>507</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>311</td>
<td>265</td>
</tr>
<tr>
<td>Orthopaedics</td>
<td>1587</td>
<td>1571</td>
</tr>
<tr>
<td>Urology</td>
<td>57</td>
<td>45</td>
</tr>
<tr>
<td>Total:</td>
<td>5153</td>
<td>5205</td>
</tr>
</tbody>
</table>

* This information is drawn from a dynamic database and is subject to change as data is updated by DHBs. Interpretation of the information in this table should not be made without reference to the notes provided at www.nzhis.govt.nz/stats/surgical/.

WDHB delivers over 30,000 bed days per year. In 2005/06, 5,771 of these were day case bed days (ie: cases where the patient stayed longer than a specialised appointment, but did not stay the night). This indicates an overall Average Length of Stay (ALOS) of 6.3 days.  

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11 32,831 total bed days, divided by 5251 caseweights equals 6.3.
The graph below shows how the number of bed days compares with similar DHBs.

![Total Bed days delivered 2002/03 - 2005/06](image)

Source: Ministry BAP$ database. Includes both day patients and inpatients.

**Theatres**
An analysis of theatres was undertaken by the review. This is in the Productivity and Efficiency section of this report.

**Paediatrics and Obstetrics**
The comparision of SDRs earlier in this report highlighted a concern about levels of access for paediatric surgery for WDHB’s population, compared to neighbouring DHBs. This level of access is likely to be related to wider issues with WDHB’s provision of paediatric and obstetric services.

**Issues with paediatric and obstetric services**
Both consultants who advised the Review are of the opinion that basic secondary service for women and children should be provided at Wanganui Hospital. However, the Review was advised that “difficulties with the recruitment of senior medical staff to Paediatric and Obstetric departments threaten the clinical and financial viability of these units, particularly if they (WDHB) attempt to continue with current models of care”\(^\text{12}\).

The planned service volumes for both paediatrics and obstetrics at WDHB are small. Demand for paediatrics and obstetrics is likely to decrease in the future, because of the aging population.

A low service volume restricts the number of specialists who can be employed, because there is a limited workload and revenue to fully occupy them. Having fewer specialists employed adversely affects retention and recruitment, because it requires less desirable roster conditions than in DHBs employing a greater number of

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specialists. This is shown with regard to obstetrics, where two obstetricians have worked a 1:2 roster for the last four years.

In terms of financial viability, the paediatric service in 2006/07 is projected to run at a loss of $382,109 compared to budgeted costs (see Appendix Four for a breakdown of this).

**Finding**

There is an opportunity available to WDHB to reduce expenditure against the current cost structures for these services. WDHB have recently entered into a medium term contract with a private company providing paediatric staffing. It has asserted to the Ministry that this model will reduce expenditure on paediatric services by $395,108 per annum.

**Impacts of changed obstetric and paediatric services**

We were advised that there is a high risk that the current obstetric service level cannot be maintained. A reduction in services has the potential to cause significant flow-on effects for other services, particularly paediatrics (where there may be a reduced requirement for neonatal resuscitation and ongoing management). There is a risk for the stability of the hospital that the anaesthetist requirement may fall to less than the current eight anaesthetists (though initial analysis suggests not to the level that a reasonable roster could not be maintained).

Changes to the delivery of paediatric and obstetric services would not have a significant impact on physical size (‘footprint’) of the HSR but it is likely any changes would affect the co-location of services within the hospital. For instance, if full secondary obstetric services are not retained, maternity services may no longer need to be co-located with a neonatal unit and the operating theatres, but would require good access to transfer facilities (eg: ambulances).

WDHB assured the Ministry that there is flexibility to incorporate paediatric and obstetric services within the ‘footprint’ of the new buildings, regardless of whether the model of delivery changes or remains the same.

**Conditions of report**

Based on this advice, the Ministers of Health and Finance agreed in November 2006 to grant full Ministerial support of the business case, and to release $29.8m of funding that has been reserved in the Health Capital budget for the HSR, subject to WDHB demonstrating the following conditions to the satisfaction of the Deputy Director-General DHB Funding & Performance Directorate (now Sector Accountability and Funding Directorate), one month prior to completion of the developed design:

- models of care for paediatric and obstetric services that have long term clinical and financial sustainability
- a demonstration of how the models of care for paediatric and obstetric services affect co-location of services within the redeveloped hospital campus
• confirmation of commitment by other DHBs and health providers, to any collaborative activity associated with these models of care

**National workshop**

To assist WDHB in meeting these conditions, the Review worked with the Ministry’s Chief Advisor for Child and Youth Health, to organise a national workshop in December 2006. The workshop was attended by WDHB, other District Health Boards and health professionals from around the country, and a range of Ministry staff. The primary aim of the workshop was to help WDHB develop sustainable models of paediatric and obstetric care by early 2007, but it also touched on wider issues relating to clinical pathways of care and workforce, common to other small DHBs.

The main outcome of the workshop was a consensus that long term sustainability of services needs to be based around collaboration with other DHBs. The workshop reinforced the need for DHBs to work together to develop new service models and jointly organise the provision of services in smaller, provincial district health boards.

The key recommendation of the workshop was that a Regional Taskforce be established to develop a concept plan for regional women’s and children’s health services in the Whanganui-MidCentral region. Terms of Reference for the taskforce have been agreed at the Taskforce’s first meeting, held on 16 February 2007. The ‘Regional Taskforce for Women’s and Children’s Health Services’ (the Taskforce) will be led by WDHB, in partnership with MidCentral DHB and the central region’s Technical Advisory Service, with representation from MOH and the sector. According to the terms of reference:

> “The Board and management of Whanganui District Health Board have confirmed their commitment to finding solutions to these issues by way of collaborative activity with their neighbouring district health boards and in the context of wider district health board collaboration13 in the Central Region. MidCentral District Health Board have confirmed their willingness and commitment to working with Whanganui District Health Board in the spirit of sector collaboration and partnership. The aim of such collaboration is to develop a long-term, sustainable service model that will meet the health needs of women and children living in both district health board areas, now and in the future”.

The establishment of this taskforce, along with the information provided to the Ministry by WDHB, has been sufficient for the Ministry to judge that WDHB has met the Minister’s requirements and release the funding reserved in the Health Capital budget.

**Options for alternative delivery of paediatric and obstetric services**

During this Joint Review, consideration has been given to potential options for alternative delivery of paediatric and obstetric services. This consideration is

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13 In this context, district health board collaboration includes primary health organisations, non-governmental organisations, community organisations, iwi, local government, service users and all other health sector participants and stakeholders.
intended to help inform the work that will be conducted by the Taskforce, rather than to pre-empt it.

Workforce issues are clearly key to models of care for both women and childrens services. Opportunities may exist for GPs, Medical Officers of Special Scale (MOSS) or other specifically trained non-specialist staff performing some of the roles currently performed by Senior Medical Officers (SMOs).

With regard to paediatrics, for example, they may be rostered on call with either ‘2nd on call’ support from local paediatricians, or more distant support from a larger centre. Second or third year Senior House Officers could play a management or coordinating role. Models with some of these elements are currently operating at Wairarapa and West Coast DHBs.

**Recommendations**

- that WDHB pursue the development of models of care for paediatric and obstetric services that are based around innovative use of workforce, technology, and collaboration with other DHBs. This should take place via the ‘Regional Taskforce for Women’s and Children’s Health Services’

- a plan to establish locally based training programmes for Junior Doctors (particularly registrars and MOSS) working in the Whanganui setting should be developed. These will include the protocols for regional services and the use of telemedicine back-up.

**Alternative delivery of other services**

Options for alternative delivery could also potentially be applied to other services.

**Telemedicine**

At the national paediatric and obstetric workshop held in December 2006, Wairarapa DHB CEO described how the DHB has incorporated the use of telemedicine in its models of delivery in recent years, and the collaborative activity that is possible as a result.

Increased use of telemedicine would assist WDHB to increase collaborative delivery of its services. The Whanganui/Manawatu region offers one of the best opportunities in New Zealand for regional delivery of services, due to the close proximity of hospitals that exist. However, telemedicine allows collaborative activity to be expanded outside these regional boundaries.

There is scope for using telemedicine in the development of new service models in several areas. There are already examples in use such as the Picture Archive Communications System (PACS) for Radiology and the on-line results reporting of remote laboratory testing. The growing power and speed of the internet exponentially increase the options for increased use of telemedicine.
**Finding**

Clever use of this technology gives WDHB the opportunity to ameliorate some of the affects of being a small board. This requires appropriate equipment and adequate computer systems, which are compatible with other DHBs. It is noted elsewhere in this report that WDHB is currently working with other DHBs to develop information technology platforms that are compatible with other DHBs, based around a regional Information Systems Strategic Plan (currently in development).

Advantages of using telemedicine include:

- improved response times through a ‘real-time-on-call’ arrangement
- access to world authorities on conditions and treatment, which may be a particular advantage if less experienced practitioners are employed
- investment in the appropriate equipment will result in economies of scale, as greater use is made of telemedicine

We encourage WDHB to continue its work in developing compatible computer systems.

**Recommendations**

- that a project is established to fully investigate potential areas for increasing the use of telemedicine by WDHB. It may be necessary to employ a senior clinician to ‘champion’ this work, and a contracted provider of telemedicine services to provide leadership
- potential for regional development of services other than paediatrics and obstetrics is investigated as part of the annual schedule of service reviews recommended elsewhere in this report.

**Workforce and links with community**

The use of specifically trained non-specialist staff to perform roles outside of their traditional responsibilities (as noted above in relation to children and women’s health) could potentially be applied to several specialties.

For instance, the reliance of secondary services on maintaining full general anaesthetic staff could potentially be alleviated by using GPs and SMOs to provide the anaesthesia services. The Australian Society of Anaesthetists (whose formal standards apply in both Australia and New Zealand) released a Position Statement in September 2004 that said:

“In areas where there are insufficient numbers of specialist anaesthetists to provide an anaesthetic service, general practitioners who maintain knowledge and skills complying with the Guidelines for Accreditation/Re-Accreditation of Rural GP anaesthetists as
A report in January 2006 by Harding Wyatt Consultants on workforce development of community providers in WDHB reported (inter alia) the following key themes:

- health professional shortages
- workforce does not reflect cultural diversity of Whanganui population
- dissatisfaction and frustration with decisions at all levels
- evidence of work to meet challenges using “forward thinking strategies, good communications, and robust relationships”
- lack of training for community providers
- opportunities for more co-ordinated approach to Whanganui district health workforce development and training
- community service relationship with WDHB is described as undeveloped and strained.

Finding

Evolution of service models for WDHB need to consider ways to use specifically trained non-specialist staff to perform roles outside of their traditional responsibilities, and take cognisance of the findings of this report, because more community based services with appropriately trained people are an answer to the continued problems of attracting specialist staff, to the goal of reducing admissions, and to improving services to the people where they live.

The approach used on the West Coast and Bay of Plenty can inform this development. West Coast DHB is strengthening community based services deliberately, as a planned alternative to developing secondary services. There is an allied development of more generalist staff through support for programs that train generalists (GPs and MOSSs) to improve access to more types of service from a constrained number of doctors. In Te Kaha, Bay of Plenty, admission rates have fallen dramatically as the result of an increased emphasis on early intervention by GPs in the community.

Mental Health services

Mental health facilities include acute services (Te Awhina), intensive clinical rehabilitation services and extended care (Delta), extended rehabilitation forensic services (Stanford House), alcohol and other drugs service, community mental health team services (Newcombe), child, adolescent and family services, and community day services. WDHB is currently a regional service provider for intensive clinical rehabilitation services and forensic rehabilitation services. The regional intensive clinical rehabilitation service is currently under review.

The ten leading challenges or action priorities that Whanganui District Health Board is endeavouring to achieve to meet mental health and addiction outcomes are:

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• promotion and prevention
• building mental health services
• responsiveness
• workforces and culture for recovery
• Māori mental health
• primary health care
• addiction
• funding mechanisms for recovery
• transparency and trust
• working together.

WDHB’s mental health funding and service delivery was assessed by comparing it to other DHBs with a similar size and/or population characteristics (Lakes, Northland, South Canterbury, Southland and Tairawhiti DHBs). The comparison was made using 2003/04, 2004/05 and 2005/06 data, sourced from the Mental Health Information National Collection. Data was compared per capita, to take account of differences in population size.

The review acknowledges that this approach does not recognise wider contextual factors (such as historical facilities and service delivery models). However, it does provide a basis for conducting an initial assessment.

The analysis shows that the WDHB is generally delivering a higher volume of services, relative to the comparator DHBs, for all age categories services except for patients over 65 year olds (where the volume of delivery is relatively similar to the other DHBs).

In terms of models of care being delivered, the analysis points to WDHB being a high user of acute services compared to the other DHBs, and have significantly higher than average length of stay for mental health services at WDHB.

In 2005/06, acute admissions were higher than the average for the five comparator DHBs in the following categories:
• acute admissions were 30 percent higher per capita for under 20 year old patients
• acute admissions were 20 percent higher per capita for 20-64 year old patients
• clients in contact with the service for 2+ years (aged 20 + years) were admitted acutely as inpatients 48.3% more often than the comparison DHBs.

**Finding**

The use of acute services at a significantly higher level than comparable DHBs indicates that there may be differences between the clinical and referral processes used by WDHB compared to the other DHBs. It also suggests that patients are being referred to acute care, when community based care may be more appropriate. However, this may also be due to the contextual factors mentioned above and the particular nature of WDHB’s demographics.

High average length of stay indicates that the services are being provided at a higher cost than other DHBs, and that improvements may be able to be made in the method
of delivery. The higher than average length of stay suggests that patients may be remaining in acute care longer than is necessary, or at least longer than is the case for other comparable DHBs.

The use of relapse prevention plans by WDHB should be used as a tool to reduce use of acute services and length of stay at these facilities. There is a proven link between the development of relapse prevention plans and reduction in referrals to acute mental health services. However, WDHB currently develops relapse prevention plans for only 34 percent of its long term patients.

The review considers that there needs to be better cohesion between community mental health providers, acute mental health services, and the client, through the development of relapse prevention plans. It should be noted that from 2007/08 all DHBs will be required to work towards a target of developing relapse prevention plans for 90-100 percent of long term patients. WDHB has a target in its draft 2007/08 DAP and Statement of Intent (SOI) of 90% of long term clients having up to date relapse prevention plans.

Our analysis shows evidence of WDHB having a relatively high average length of stay for mental health services. For instance, clients aged 20 or over, in contact with the service for 2+ years, used 81.9% more acute inpatient days than the comparison DHBs.

The high average length of stay may contribute to WDHB’s relatively high level of expenditure on mental health services (however, further analysis needs to be done to establish a clear link between length of stay and expenditure by WDHB on mental health services). Our analysis indicates that WDHB is spending substantially more per head of population on mental health services than the DHBs with which it was compared.

The tables below show analysis relating to services for adults, and services for children and young people, using data that was considered to be directly comparable across the DHBs15. Spending relating to Older People, Forensic, and other services was excluded from our assessment of spending. Forensic was excluded because of its national service characteristic; Older People because of the inconsistent treatment of funding across the DHB groups; and Other Services because the degree of comparability was not easy to assess and generally the rate per head was similar.

The first table compares WDHB to the average of two comparable groups of DHBs:
- five DHB Group: quite comparable DHBs (Lakes, Northland, South Canterbury, Southland and Tairawhiti)
- two DHB Group: very comparable DHBs (South Canterbury and Tairawhiti).

The analysis suggests an overspend in the range of $4.2m to $5.2m.

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15 Data was obtained from the Mental Health Information National Collection (MHINC).
WDHB considered that Lakes and Northland DHBs have more closely comparable population mixes, so further analysis focused on comparing WDHB with those two DHBs. This is shown in the table below, which suggests that if WDHB were to spend the same per head of population as Lakes and Northland DHBs, this would amount to approximately $3.5m less than its current level of expenditure.

In conclusion, our analysis indicates that if WDHB were to spend the same per head of population as comparable DHBs, this would amount to approximately $3.5 – 5.2m less than its current level of expenditure (depending on the DHBs being compared to).

**Recommendations**

- Whanganui DHB increases the number of treatment and relapse prevention plans to 90% of long term mental health clients, in line with national health targets
- Whanganui DHB examines clients who use mental health services for more than two years as to bed day usage, through the “Knowing People Planning
Project,” and encourage development of community services

- Whanganui DHB gets an independent analysis of its clinical diagnosis and referral process compared to Northland, Lakes, Tairawhiti, South Canterbury and Southland to identify whether there is an unusually high need for mental health services within the Whanganui population

- WDHB review the application and implications of how the mental health ring fence is applied to its population, noting that it is proposed to review the application of the ring fence as part of the Ministry’s review of the Population Based Formula for funding DHBs

- after the analysis is completed, the appropriate structure to deliver the services should be investigated.

Productivity and Efficiency of service provision

**Ambulatory Sensitive Admissions**

Ambulatory sensitive admissions are admissions that are potentially preventable by appropriate primary care (including out-patient services) and provide an indication of access to, and the effectiveness of, primary care. If there is good access to effective primary care for all population groups, then it is reasonable to expect that there will be lower levels of ambulatory sensitive admissions.

For children, changes in practice to reduce admissions are likely to be at the primary care level. Better access to preventative health care (well child), and treatment at primary care for respiratory illness, cellulitis and other skin conditions, and gastric illnesses are expected to reduce the number of acute admissions.

For older people, early identification of emerging conditions, better management of chronic conditions, appropriate referral to specialist services, and better linkages between hospital and primary care when discharging patients, are all expected to reduce the number of acute ambulatory sensitive admissions.

<table>
<thead>
<tr>
<th>Whanganui DHB Ambulatory Sensitive Admissions</th>
<th>Total</th>
<th>NZ Average</th>
<th>Maori</th>
<th>Pacific</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambulatory sensitive hospitalisations under 5</td>
<td>94.3</td>
<td>69.4</td>
<td>107.3</td>
<td>226.2</td>
<td>80.7</td>
</tr>
<tr>
<td>Ambulatory sensitive hospitalisations 5 - 14</td>
<td>24.1</td>
<td>18.7</td>
<td>26.6</td>
<td>22.9</td>
<td></td>
</tr>
<tr>
<td>Ambulatory sensitive hospitalisations 15 - 24</td>
<td>20.3</td>
<td>15.3</td>
<td>25.7</td>
<td>18.1</td>
<td></td>
</tr>
<tr>
<td>Ambulatory sensitive hospitalisations 65 - 74</td>
<td>70.5</td>
<td>64.4</td>
<td>103.6</td>
<td>66.5</td>
<td></td>
</tr>
<tr>
<td>Preventable hospitalisations under 5</td>
<td>12.1</td>
<td>6.3</td>
<td>17.0</td>
<td>8.2</td>
<td></td>
</tr>
<tr>
<td>Preventable hospitalisations 5 - 14</td>
<td>4.3</td>
<td>2.6</td>
<td>6.2</td>
<td>3.1</td>
<td></td>
</tr>
<tr>
<td>Preventable hospitalisations 15 - 24</td>
<td>2.7</td>
<td>1.4</td>
<td>2.4</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>Preventable hospitalisations 65 - 74</td>
<td>53.7</td>
<td>35.8</td>
<td>50.1</td>
<td>53.9</td>
<td></td>
</tr>
<tr>
<td>Injury preventable hospitalisations under 5</td>
<td>6.5</td>
<td>3.6</td>
<td>7.4</td>
<td>5.6</td>
<td></td>
</tr>
</tbody>
</table>
Injury preventable hospitalisations 5 - 14 | 7.0 | 4.9 | 5.4 | 8.0
Injury preventable hospitalisations 15 - 24 | 7.5 | 5.8 | 5.8 | 8.2
Injury preventable hospitalisations 65 - 74 | 1.4 | 1.5 | 1.5 | 1.5

Source: NMDS public hospital data, maintained by the NZ Health Information Service (NZHIS). 12 months to 30 December 2005

Shading = significantly greater than average national rate

**Finding**

As the table above shows, WDHB is significantly above the national average for a number of age groups, largely as a consequence of its relatively high Maori population. This indicates areas where WDHB need to work more closely with PHOs to move WDHB’s performance closer to the national average.

**Average length of stay (ALOS) and daycase ratios**

ALOS refers to the average time that patients stay in hospital during the course of their care. Daycase ratio is the proportion of services performed without an overnight stay being required.

Both ALOS and daycase ratios are measures of productivity. Low ALOS and high daycase ratio, compared to the national average, indicate relatively high efficiency.

The table below shows the ALOS and Number of day cases for Wanganui Hospital for 2005, by service.

**Table A1 Base data for Whangnaui Hospital**

<table>
<thead>
<tr>
<th>Service</th>
<th>Number of Discharges 2005</th>
<th>ALOS 2005</th>
<th>Percentage of Day Cases 2005</th>
<th>Number of Day Cases 2005</th>
<th>Number of Inpatients 2005</th>
<th>Number of Inpatient bed days 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>A&amp;E/Short Stay Observation Day Case</td>
<td>866</td>
<td>0.0</td>
<td>100.0%</td>
<td>866</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ante/Postnatal</td>
<td>809</td>
<td>2.7</td>
<td>12.7%</td>
<td>103</td>
<td>706</td>
<td>1,924</td>
</tr>
<tr>
<td>Deliveries</td>
<td>625</td>
<td>0.0</td>
<td>0.0%</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AT&amp;R</td>
<td>207</td>
<td>18.9</td>
<td>1.4%</td>
<td>3</td>
<td>204</td>
<td>3,857</td>
</tr>
<tr>
<td>Medical</td>
<td>2,717</td>
<td>4.9</td>
<td>6.6%</td>
<td>178</td>
<td>2,539</td>
<td>12,317</td>
</tr>
<tr>
<td>Neonatal ICU</td>
<td>144</td>
<td>6.2</td>
<td>8.3%</td>
<td>12</td>
<td>132</td>
<td>820</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paediatric Medical</td>
<td>901</td>
<td>2.2</td>
<td>29.1%</td>
<td>262</td>
<td>639</td>
<td>1,422</td>
</tr>
<tr>
<td>Paediatric Surgical</td>
<td>755</td>
<td>1.8</td>
<td>55.2%</td>
<td>417</td>
<td>338</td>
<td>605</td>
</tr>
<tr>
<td>Surgical - Gynaecology</td>
<td>471</td>
<td>2.4</td>
<td>41.2%</td>
<td>194</td>
<td>277</td>
<td>656</td>
</tr>
<tr>
<td>Surgical - Long Stay</td>
<td>2,385</td>
<td>3.7</td>
<td>36.4%</td>
<td>869</td>
<td>1,516</td>
<td>5,632</td>
</tr>
<tr>
<td>Surgical - Long Stay- Orthopaedic</td>
<td>1,817</td>
<td>4.3</td>
<td>30.4%</td>
<td>552</td>
<td>1,265</td>
<td>5,488</td>
</tr>
</tbody>
</table>
The ALOS and daycase numbers for Wanganui Hospital patients were benchmarked against the average from across all non-tertiary hospitals in New Zealand, for Medical, Paediatric, Surgical, Pregnancy/Birth, Neonatal ICU, and Critical Care services. The purpose of this was to assess where efficiency gains might lead to reductions in ALOS and increases in daycase treatments.

The benchmarking was carried out using case-mix adjusted ALOS and daycase treatments. This allows a fair comparison between providers. The case-mix adjustment used a number of different factors, including:

- the principal diagnosis
- the presence of any complications and/or co-morbidities
- age
- socio-economic and demographic factors.

The case-mix adjusted ALOS and daycase treatments for Wanganui Hospital patients for each service were compared with the national average across all non-tertiary hospitals for the corresponding service (see Appendix One for details on this methodology).

The results of this analysis are summarised in the table below.

<table>
<thead>
<tr>
<th>Specialty</th>
<th>ALOS, % Above National Average*</th>
<th>Number of Inpatients</th>
<th>Percent Day Case, % Below National Average**</th>
<th>Number of Discharges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ante/Postnatal</td>
<td>3.8%</td>
<td>697</td>
<td>0.0%</td>
<td>807</td>
</tr>
<tr>
<td>Medical</td>
<td>0.0%</td>
<td>2315</td>
<td>-31.6%</td>
<td>2387</td>
</tr>
<tr>
<td>Neonatal ICU</td>
<td>0.0%</td>
<td>121</td>
<td>0.0%</td>
<td>70</td>
</tr>
<tr>
<td>Paediatric Medical</td>
<td>0.0%</td>
<td>623</td>
<td>-38.9%</td>
<td>739</td>
</tr>
<tr>
<td>Paediatric Surgical</td>
<td>0.0%</td>
<td>354</td>
<td>0.0%</td>
<td>775</td>
</tr>
<tr>
<td>Surgical - Long Stay</td>
<td>0.0%</td>
<td>1489</td>
<td>-10.8%</td>
<td>2361</td>
</tr>
<tr>
<td>Surgical - Orthopaedics</td>
<td>0.0%</td>
<td>1182</td>
<td>0.0%</td>
<td>1698</td>
</tr>
<tr>
<td>Surgical - Short Stay</td>
<td>0.0%</td>
<td>377</td>
<td>0.0%</td>
<td>951</td>
</tr>
<tr>
<td>Total</td>
<td>0.0%</td>
<td>7173</td>
<td>-8.1%</td>
<td>9803</td>
</tr>
</tbody>
</table>

Source: Bed Modelling conducted by DHB Funding & Performance Service Analysis Team, 2006

ALOS was found to be 3.8 percent longer than the national average for ante/postnatal services. This shows that there is scope for improving efficiency in ante/postnatal services by reducing the ALOS. In the review of Hawkes Bay DHB,

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16 Excludes all iatrogenic complications.
17 To make a valid comparison between regions the above four factors are controlled by an adjustment for a patient’s status on admission.
potential savings to be gained from reducing ALOS were estimated by multiplying the amount of bed days the excess ALOS relates to, by $200 per bed day. 18

Finding

The analysis of day case treatments shows significant scope for making improvements in medical services. The percentage of treatments as a day case was 31.6% lower than the national average for medical services, and 38.9 percent lower for paediatric medical.

There are also opportunities for increasing the percentage of treatments in surgical – long stay (this refers to general surgery and urology - excluding all children under 17) where the percentage of treatments as a day case is 10.8 percent lower than the national average.

Recommendation

- that WDHB review its medical clinical processes, practices and pathways, as part of the annual schedule of service reviews recommended elsewhere in this report. This should include reviewing the criteria it currently uses for determining whether cases should be undertaken as a daycase.

Subsequent Speciality Assessment (SSA) to First Specialist Assessment (FSA) Ratios

The ratio of SSA to FSA is a measure of how well scarce resources are utilised in meeting the usually high demand for specialist outpatient assessments.

There is generally more utility or value gained from the first and the next subsequent assessment, than for ongoing follow-up assessments (although a balance needs to be struck with some flexibility for complex or chronic cases).

A lower SSA to FSA ratio is preferable, because it indicates that fewer follow-ups are being required.

Finding

This table and graph below shows an upward trend for WDHB since 2000/01. Compared to similar DHBs, WDHB has a lower ratio than Tairawhiti DHB and Lakes DHB, but a slightly higher ratio than Northand and Hawkes Bay DHBs, and significantly higher ratio than Wairarapa DHB (see Appendix Six for numbers of referrals).

<table>
<thead>
<tr>
<th>DHB</th>
<th>2000/01</th>
<th>2001/02</th>
<th>2002/03</th>
<th>2003/04</th>
<th>2004/05</th>
<th>2005/06</th>
<th>2006/07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northland</td>
<td>1.5</td>
<td>1.9</td>
<td>1.8</td>
<td>1.8</td>
<td>1.9</td>
<td>1.7</td>
<td>2.0</td>
</tr>
</tbody>
</table>

18 Review of Hawkes Bay District Health Board Report, pg 53.
WDHB need to reverse this upward trend, and ensure protocols are in place for responsibility to be shifted to GPs and PHOs to conduct further follow up as soon as possible. WDHB would benefit from comparing the SSA: FSA ratio, by specialty, with Wairarapa DHB.

Recommendation

• WDHB work with Wairarapa DHB, and more closely with Primary Health Organisations, to investigate ways to reduce the SSA: FSA ratios service by service.

Emergency Department (ED) Triage

ED triage figures for WDHB have generally improved since 2002/03.
WDHB’s performance is relatively similar to comparable DHBs.

Finding

The HSR design should enable improvements in triaging, by integration of the Emergency Department and Acute Assessment Unit with the Primary Health Organisation Accident and Medical Clinic, and Critical Care Unit. The Review expects that colocation should improve relationships between the Emergency Department, Acute Assessment Unit and other specialities, leading to enhanced management of patient flow.
**Theatre Analysis**

Operating theatres play a central role in influencing organisational efficiency and productivity. Much of the observed variations in performance at WDHB are difficult to explain and warrant further investigation and comparison to similar units.

Traditionally, inefficiency in theatre falls into two broad streams:

- **hospital wide**: these can be only improved if people or departments change the way they work
- **theatre practicalities**: these are problems that can be resolved by addressing issues that hinder the flow of patients through the theatre complex.

This review looked at both areas, although mainly concentrated on theatre practicalities, with the view that further investigation is done in relation to the hospital wide stream. The key aspect of the hospital wide stream is that this area has been discussed in the HSR business case, however it is the view of this report that more analysis and planning is done by the DHB to ensure greater flow and efficiencies.

The observations, made in relation to theatre practicalities, provide a high level overview of some of the areas where discrepancies in performance exists.

**Findings**

The current theatre complex consists of four operating theatres, of which three are used for elective surgery with the fourth theatre being reserved for emergency work. The current theatre complex, while indicated by staff that it works well, does not provide the best flow of patients.

The building of the new theatre complex has commenced as part of the hospital redesign, and will be joined to the Day unit. This design, while enabling a greater emphasis on day surgery, still has limitations for the theatre complex flow. The design does allow for expansion in the future if required.

Surgical output for the DHB over the past three years has remained relatively stable; although indications are that there is a slight decrease in elective surgery being performed.

Theatres are physically available 24 hours a day but are seldom used for more than 40 hours per week. Each day three theatres are utilised, each being available to hold two sessions per day (each session is planned to run three and half hours) on weekdays. On this ratio each theatre is productive for 35 hours per week. A well-used theatre would average more than 40 hours use per week.

WDHB supplied information that indicated that theatre utilisation per week is approximately 30 sessions per week. Medical staff peer review occurs once every month and is scheduled to occur during peak operating time. For the week when peer review occurs the number of available operating sessions drops to 27 sessions. The impact of the peer review occurring at this time is not only dropping the available session numbers but as the peer review is scheduled to take place in peak times, this has an effect on theatre productivity and the impact is hospital wide.
Each day the fourth theatre is resourced to cover acute work. Overall workload for this theatre is not high, therefore suggesting under utilisation of resources. Figures supplied by the DHB indicated that most acutes were performed after 1630hrs. It is recommended that the utilisation of theatre is reviewed and that the review incorporates hospital wide practices, ie: flow of patient presenting in emergency department to completion of operation.

The WDHB theatre schedule and utilisation of planned sessions is an area of concern and requires remedial action. Of the 750 theatre sessions planned during the six month period of May 2006 to October 2006; 598 were utilised and 152 unutilised.

Unutilised sessions by speciality can be seen in the table below; provided by WDHB. Further investigation is required as to what were the key contributing factors for any specialty that had a percentage higher than 25%.

<table>
<thead>
<tr>
<th>Speciality</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Surgery</td>
<td>26%</td>
</tr>
<tr>
<td>Orthopaedics</td>
<td>18%</td>
</tr>
<tr>
<td>Gynaecology</td>
<td>27%</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>25%</td>
</tr>
<tr>
<td>Dental</td>
<td>34%</td>
</tr>
<tr>
<td>Ear Nose and throat</td>
<td>38%</td>
</tr>
<tr>
<td>Urology</td>
<td>9%</td>
</tr>
</tbody>
</table>

Unutilised sessions result in fewer operating hours than planned being available, thereby directly impacting on theatre efficiency. Although efforts were made to fill unutilised sessions the financial impact of this rate of unutilised sessions is estimated (conservatively) to be $138,000 per year in theatre staffing costs alone. This does not indicate the total cost to the DHB as a whole (i.e: downstream cost of staff in wards etc) or other overheads.

<table>
<thead>
<tr>
<th>Expense Type</th>
<th>Hourly Expense</th>
<th>Number Needed Per Session</th>
<th>Expense Per Session</th>
<th>Cost Per Year of Unutilised Sessions (potential saving)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered Nurse</td>
<td>$25.88</td>
<td>4</td>
<td>362.32</td>
<td>110,145.28</td>
</tr>
<tr>
<td>Anaesthetic Technician</td>
<td>$25.81</td>
<td>1</td>
<td>90.335</td>
<td>27,461.84</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$137,607.12</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The reason for sessions being unutilised is collected by the theatre department and the number one reason was “surgeon on planned leave”, at a rate of 69 of the 152. By better management and planning of surgeons leave this number could be reduced.

In addition to unutilised sessions there were 47 sessions cancelled during the same six month period. The key reasons supplied were sick leave for surgeon or anaesthetist, bereavement leave, patient sick and surgeon resignation.
Although it was indicated by the DHB that planning was done on a caseweight (CWD) basis, there appears to be very little evidence of how planning is done and performance is monitored.

Cancellation of surgical cases was also noted to be high for the six month period of May 2006 to October 2006, 185 cases cancelled. The data provided by the review, indicated that the key reasons for cases being cancelled are as follows:

<table>
<thead>
<tr>
<th>Reasons for surgery cancellations</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unfit for procedure</td>
<td>30</td>
</tr>
<tr>
<td>Displaced by emergency</td>
<td>28</td>
</tr>
<tr>
<td>No surgeon time</td>
<td>24</td>
</tr>
<tr>
<td>No anaesthetist available</td>
<td>19</td>
</tr>
<tr>
<td>Medical staff not available</td>
<td>17</td>
</tr>
<tr>
<td>No reason given</td>
<td>12</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>10</td>
</tr>
<tr>
<td>Patient changed mind</td>
<td>9</td>
</tr>
<tr>
<td>No beds available in wards</td>
<td>7</td>
</tr>
<tr>
<td>Patient not starved</td>
<td>5</td>
</tr>
<tr>
<td>Patient not prepared</td>
<td>5</td>
</tr>
<tr>
<td>Patient did not arrive in hospital</td>
<td>5</td>
</tr>
<tr>
<td>No beds available in ICU</td>
<td>4</td>
</tr>
<tr>
<td>Surgery not required</td>
<td>4</td>
</tr>
<tr>
<td>Requires second opinion</td>
<td>2</td>
</tr>
<tr>
<td>Equipment not available</td>
<td>2</td>
</tr>
<tr>
<td>Surgery performed acutely</td>
<td>1</td>
</tr>
<tr>
<td>Patient deceased</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>185</strong></td>
</tr>
</tbody>
</table>

Pre assessment of patients is vital to avoid some of the cancellations that occur. At present the process is ad hoc and this needs to be improved. The new theatres facility will assist in this area, however a robust process needs to be developed.

Currently theatre list and the cases on the list are done by a central location and there is minimal input from the Theatre Manager. Lists that were reviewed as part of this review, indicated practices that don’t support good theatre productivity.

Theatre staff typically accounts for at least 50% of theatre staff operating costs and play a significant role in determining the efficiency and productivity of the unit.

WDHB budgeted for 2006/07 a total of 32.69 FTE, and run per month below the budgeted FTE by a range of 0.42 FTE to 1.55 FTE (July 2006 – October 2006). This FTE includes nursing staff, managers, technicians, cleaners but excludes all medical staff.

It must be noted that WDHB has eight anaesthetists employed, who cover work in the Intensive Care unit, as well a some private hospital work. This is an interesting observation in light of the number of cases cancelled due to anaesthetist not available.
The start time of operating theatre nursing staff is currently all at the same time, except for the Post Anaesthetic Care Unit staff. While currently this doesn’t appear to be an issue, the introduction of more innovative rostering could assist productivity and is an area that should be reviewed.

Each theatre is staffed with four nursing staff with the aim of reducing time taken for breaks.

Session start times are set at 0830 and 1300hrs. However these times are not always met.

**Recommendations**

- planning processes need to be designed or enhanced to ensure that the following aspects are incorporated into the processes: enhanced patient flow through hospital event, increased theatre productivity, better case management including pre operation assessment, and reduction in number of cancelled cases

- review of theatre utilisation including sessions required, an increased focus on utilisation of session allocated, hospital wide practices, better theatre list management, processes put in place to ensure reduction in cancelled cases, and session start times

- staff/resources: develop staff productivity measures such as FTE per operating hour, to establish a baseline for rostering. Staff levels need to be better assessed in relation to workload. Flexible staff start times would enhance productivity

- improved processes and management of medical staff leave. This process should be the responsibility of the Theatre Manager or at least the Theatre Manager should be informed of any leave as soon as it is approved

- medical staff peer review session must be scheduled to minimise disruption to peak operating and patient flow times

- robust monitoring process are developed which will assist in planning processes. These need to be at both a speciality level and department level

- work should be undertaken by the DHB to improve the planning process, to enable planning of allocated sessions, worked sessions and expected average output rates. This needs to be done by speciality as well as by department.

**Turnover and sick leave**

Staff turnover and sick leave can be regarded as indicators of staff morale. Low staff morale may impact on productivity, job satisfaction and ultimately staff retention.
Efficiencies can be gained by reducing staff turnover and sick leave. Some HR practitioners estimate that the cost of turnover of a staff member is at least 50 percent of the staff salary up to 150.

**Finding**

Analysis of staff turnover and sick leave at WDHB shows the levels are comparable with other similar DHBs. However, there is room for improvement. We believe WDHB should aim to match the lowest rate of turnover and sick leave, of comparable DHBs.

Reducing its staff turnover to the same level as the best performing DHB could potentially save WDHB between $77,000 and $550,000 (depending on whether the four year average, or 2005/06 figure is used as the basis for calculation).\(^{19}\)

### Staff Turnover %

<table>
<thead>
<tr>
<th>Hospital Name</th>
<th>Value (%)</th>
<th>Year-to-year difference (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2002/03</td>
<td>2003/04</td>
</tr>
<tr>
<td>Lakes DHB</td>
<td>13.97%</td>
<td>13.76%</td>
</tr>
<tr>
<td>Northland DHB</td>
<td>18.36%</td>
<td>15.43%</td>
</tr>
<tr>
<td>South Canterbury DHB</td>
<td>9.85%</td>
<td>11.45%</td>
</tr>
<tr>
<td>Tairawhiti DHB</td>
<td>13.31%</td>
<td>17.15%</td>
</tr>
<tr>
<td>Wairarapa DHB</td>
<td>18.69%</td>
<td>18.12%</td>
</tr>
<tr>
<td>West Coast DHB</td>
<td>15.20%</td>
<td>13.50%</td>
</tr>
<tr>
<td>Whanganui DHB</td>
<td>13.02%</td>
<td>8.86%</td>
</tr>
</tbody>
</table>

**Source:** Ministry BAPS database

2005/06 average = 13.96

Whanganui DHB  South Canterbury DHB

Similarly, reducing sick leave to match the best performing comparable DHB would create potential savings of between $302,000 and $312,000 (difference between WDHB and the best performing DHB, divided by total personnel cost of $54.9 million).

### Sick leave (%)

<table>
<thead>
<tr>
<th>Hospital Name</th>
<th>Value (%)</th>
<th>Year-to-year difference (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2002/03</td>
<td>2003/04</td>
</tr>
<tr>
<td>Lakes DHB</td>
<td>3.18%</td>
<td>3.26%</td>
</tr>
<tr>
<td>Northland DHB</td>
<td>3.23%</td>
<td>3.14%</td>
</tr>
<tr>
<td>South Canterbury DHB</td>
<td>2.91%</td>
<td>2.90%</td>
</tr>
</tbody>
</table>

\(^{19}\) Calculated by multiplying 835 staff x difference between WDHB and the best performing DHB (0.0201 difference for 2005/06, 0.0028 difference for four year average) x 50% x average salary cost of $65,750.
<table>
<thead>
<tr>
<th>DHB</th>
<th>2005/06 Average</th>
<th>2006/07 Average</th>
<th>2007/08 Average</th>
<th>2008/09 Average</th>
<th>2009/10 Average</th>
<th>2010/11 Average</th>
<th>2011/12 Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tairawhiti DHB</td>
<td>2.50%</td>
<td>2.55%</td>
<td>2.66%</td>
<td>2.69%</td>
<td>2.1%</td>
<td>4.3%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Wairarapa DHB</td>
<td>2.82%</td>
<td>3.16%</td>
<td>2.95%</td>
<td>2.98%</td>
<td>12.2%</td>
<td>-6.8%</td>
<td>1.1%</td>
</tr>
<tr>
<td>West Coast DHB</td>
<td>3.02%</td>
<td>2.90%</td>
<td>3.33%</td>
<td>2.80%</td>
<td>-3.8%</td>
<td>14.6%</td>
<td>-15.9%</td>
</tr>
<tr>
<td>Whanganui DHB</td>
<td>2.94%</td>
<td>3.04%</td>
<td>3.45%</td>
<td>3.24%</td>
<td>3.2%</td>
<td>13.4%</td>
<td>-6.0%</td>
</tr>
</tbody>
</table>

Source: Ministry BAPS database
2005/06 average = 3.03

**Recommendation**

- WDHB incorporate ways to reduce turnover and sick leave into its Human Resources Management Strategic Plan.
Analysis of support services

Radiology

Radiology services are central to a DHB’s ability to deliver fast and reliable diagnoses, treatments, and manage increased service demands.

Radiology services have remained relatively constant in recent years (see table below).

<table>
<thead>
<tr>
<th>Modality</th>
<th>2002/03</th>
<th>2003/04</th>
<th>2004/05</th>
<th>2005/06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plain Films</td>
<td>27,142</td>
<td>27,587</td>
<td>25,921</td>
<td>26,349</td>
</tr>
<tr>
<td>Ultrasound General</td>
<td>6,085</td>
<td>5,662</td>
<td>4,515</td>
<td>4,967</td>
</tr>
<tr>
<td>Fluoroscopy</td>
<td>887</td>
<td>419</td>
<td>728</td>
<td>798</td>
</tr>
<tr>
<td>Mammogram (external provider)</td>
<td>PMI</td>
<td>PMI</td>
<td>465</td>
<td>482</td>
</tr>
<tr>
<td>CT</td>
<td>2,435</td>
<td>2,669</td>
<td>2,622</td>
<td>2,784</td>
</tr>
<tr>
<td>MRI</td>
<td>1,019</td>
<td>869</td>
<td>1,436</td>
<td>1,918</td>
</tr>
<tr>
<td>Ultrasound Obstetric</td>
<td>268</td>
<td>221</td>
<td>92</td>
<td>112</td>
</tr>
<tr>
<td>Nuclear Medicine (external provider)</td>
<td>328</td>
<td>296</td>
<td>244</td>
<td>269</td>
</tr>
<tr>
<td>Ultrasound Obstetric - HBL</td>
<td>1,644</td>
<td>2,243</td>
<td>2,074</td>
<td>2,288</td>
</tr>
</tbody>
</table>

39,808 39,966 38,097 39,967

Source Radiology RFP June 2006

The WDHB Provider Division has an electronic linkage with Wanganui based general practices for the delivery of and shared access to laboratory and radiology diagnostics generated by QLab. WDHB is working to create a linkage between the diagnostic results repositories held by Wanganui Hospital and Health Services and by MidCentral Health. This will enable clinicians at the point of care to have access to complete diagnostic records.

The Review identified concerns about the amount of money being spent on radiology, particularly in relation to radiology staff salaries. This situation has arisen because WDHB is reliant on limited specialist services, due to a lack of appropriately trained alternatives.

WDHB accepts the amount being paid is too high and has taken steps to manage it by changing the model for delivery of these services. This involves reducing onsite radiology services, and contracting some work to a remote provider.

There appears to be a strong preference among clinicians at WDHB for on site provision of radiology services. However, there are examples in New Zealand where radiology services are provided almost entirely remotely (for example, Wairarapa DHB) so the Review agrees that moving to use of remote services is logical. There has already been $400,000 saved through the steps taken to date by WDHB. The Review estimates that there is scope for a further saving of $200,000.
This will require partnering with larger providers of radiology services, and potentially changing service delivery (including advancement of telemedicine to enable some radiology reading to be conducted off-site). \(^{20}\)

**Recommendation**
- WDHB pursue opportunities for further moves towards off-site reading of results, combined with a limited and more cost effective local presence.

### Labs

The WDHB has in 2006/2007 been implementing a Laboratory Services Strategy. The intent of the strategy is to integrate hospital and community laboratory service functions under one main service provider. The Board also intends to review district health board funding of laboratory services for referrals from private specialists. \(^{21}\)

Laboratory services will cost around $5.3m in 2006/07. The Review believes there is scope to save $100-200,000 by capitalising on increased competitiveness in the laboratory sector in New Zealand.

The lab testing requirements of New Zealand could be met by a single lab with Stat labs in appropriately designated facilities. Australian east coast facilities could be used. The situation in Auckland indicates what might be achieved in a smaller way. NZ has had a greatly over-priced lab service for many years now and successful introduction of competition will benefit all users of such services. The reasons for the over-pricing are historical and lie in the “open cheque book” approach that used to exist where pathologist owned businesses were paid according to a schedule which was based on use of less efficient equipment than the providers were using. There was no notion of a competitive price. To date, the major provider has been able to hold the price up by having major private market dominance (which has been aided by DHBs not entering the private market.

There is a five year contract being let, and therefore savings in the next two years will depend on changes in private referral charging, and mid contract negotiations.

**Recommendation**
- WDHB pursue opportunities for reducing the cost of laboratory services.

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\(^{21}\) WDHB 2006/07 District Annual Plan, pg 22.
Human Resources (HR) and recruitment

The HR department is responsible for all human resource needs and training support. It is resourced with staff equivalent to 5.8 FTE. This includes two HR Advisors, reception and administration, a recruitment coordinator and a General Manager. The General Manager is located in a separate building from the other HR staff, and works four days a week.

Some negative comments were made about WDHB’s HR processes during early discussions with the Ministry members of the Review. This led to a high-level review of the department being conducted. The HR Manager, and some HR staff, were interviewed. Interviews were also held with other WDHB Managers, and personnel files and human resources strategies reviewed.

Finding

The review found some disjoint between the Human Resources Strategic Plan (HRSP), and the way in which the HR department is operating. The HRSP sets out a long term direction, focusing on key priorities. This contrasts with an apparent tendency for the HR department to operate mainly reactively.

The review did not find evidence of a plan to operationalise the HRSP. This means there is not a clearly defined pathway to achieving the HRSP objectives, and there is no easy way of assessing progress toward these objectives. A ‘Workplace Audit’, commissioned by Concordia Limited in 2006, backs up these findings. Its finding included:

- the HR Department does not communicate the HRSP well
- there is no succession planning for key roles and poor hand over
- the HR department tends to be reactive, and needs to be more proactive.

The ‘Inspection Report resulting from a Reportable Event: WHANGANUI DISTRICT HEALTH BOARD Wanganui Hospital’, adds weight to these criticisms. The inspection investigated whether, human resources management processes were conducted in accordance with good employment practice and meet the requirements of legislation, in relation to the Central Patient Administration team. This standard requires the provider to evidence ‘good employment’ practice and comply with legislative requirements.

It found that the WDHB has appropriate policies and procedures relating to human resources management, but some instances in which these were not being followed to an acceptable level. For example, the inspection found some non-compliance with the Boards orientation requirements, and annual performance appraisals (currently approximately 40% non compliance).

The inspection report required a number of corrective actions be made with respect to human resources. WDHB has developed a plan for responding to these actions. See Appendix Three for WDHB’s ‘Corrective Action Plan’.
The review understands that the WDHB response to these actions has been prompt and appropriate. However, WDHB’s success in responding to the actions cannot be measured until after the responses have been completed.

**Recommendations**

The Human Resources Management Strategic Plan should be redeveloped to provide a greater focus on helping manage to address the following issues:

- learning and staff development strategies
- how HR capacity and capability issues well be developed to implement a large training programme while maintaining the day to day issues
- ways to recruit and retain key staff with a focus on nursing and medical staff
- regional collaboration including sharing services and how this would impact on HR strategy
- robust succession planning to ensure key roles have backup successor
- work force planning that is robust and in line with national and regional initiatives.

An ‘action plan’ that links with the HRSP should be developed. This plan would form the basis for the Human Resources department’s annual work, and for assessment of performance against the HRSP. It should include Key Performance Indicators, timeframes and resourcing.

The General Manager is located with HR Department staff, to improve leadership and communication in the team.

**Recruitment**

The ability of WDHB to recruit and retain staff is key to its ability to provide services and function adequately. This is most clearly shown in the case of paediatric and obstetric services, where an inability to attract and retain suitably qualified staff resulted in these services being unsustainable (see earlier section for a full description of findings on paediatric and obstetric services).

Recruitment at WDHB is the responsibility of General Managers. Support is provided by the Human Resource department, where a Recruitment Coordinator is employed. The review’s investigation of the human resources department highlighted potential for improved forward planning of recruitment. There does not appear to be a clear strategy for HR and General Managers to use as a basis for recruitment at WDHB.

Issues with recruitment have recently been identified by sources other than this review. A 2006 report by Randall Mellows and Associates, commissioned by Wanganui District Council to look at aspects of health provision in Wanganui, included some investigation of recruitment issues. The report found that recruitment
processes at WDHB could be improved. One recommendation was that WDHB establish a specialist recruitment function, rather than having the function devolved to heads of departments.

**Finding**

WDHB appears to be moving towards a more coordinated approach to recruitment. A Manager has recently been appointed to coordinate recruitment work in the Provider Division. We commend this move and encourage WDHB to continue to consolidate recruitment processes, by ensuring clear communication of roles and forward planning between the Provider Division, Funder Division and HR department, in relation to recruitment.

**Information Technology (IT)**

There are two divisions within the IT and information department at WDHB - the Operations and Information Management sections.

The Operations section is responsible for IT engineering support and has the following technical staff:

- Level 2 support by four FTE’s
- Level 3 support and project management is outsourced (one & half FTEs).

The Information Management section is staffed by eight and provides application expertise, help and assistance with over 70 applications.

WDHB is currently up-grading its hardware to use ‘Thin Client’. Most PC related hardware is purchased rather than leased.

The Information Systems Strategic Plan (ISSP) sets the future direction for IT. The current ISSP lists 14 projects in 2006/07, 15 in 2007/08, nine in 2008/09 and four in 2009/10.

The review commissioned advice from HealthMAP, an independent company with health sector-specific expertise in information technology on WDHB’s ISSP issues.

**Findings**

HealthMAP’s high level assessment of the ISSP recommended further investigation of a number of aspects related to IT, including regional collaboration, budgets, equipment and capacity (see the report in Appendix Eight).

Of particular concern is the number of major projects outlined in the ISSP. WDHB IT management has suggested that the ISSP be revised again to better consider future growth (collaboration) and future-focus, while sustaining current service levels.

This will reflect the development of changed models of care, and will contain a planned programme of work for the development of collaborative DHB information systems. This move towards a regionally collaborative information strategy is a major step forward, and the participants should be congratulated. It is imperative this initiative is given the urgency needed and timeframes.
The review assesses that given the size of this work programme, and the high reliance on external contractors, internal capacity of the Operations section needs to be increased.

Approximately $180,000 per annum is for supporting/updating Oracare (Oracle) PMS. Given that Oracare was replaced in July 2007, this will enable $100,000 savings in outsourcing costs by the end of 2008/09.

Employing one level 3 staff member and one Project Manager will lift the capacity and capability of the Operations Division team, and ultimately create savings of $180,000 by 2008/09.

In terms of IT hardware, the review considers moving towards use of ‘Thin Client’ is a good strategy to decrease device and support costs. The review also notes that leasing has the following advantages over purchasing hardware:

- three years warranties reduces hardware servicing costs
- ability to change over equipment on a planned basis, without the need to have capex approval
- as technology needs changes (especially if software demands increase) then hardware can be upgraded and old stock returned
- easier to budget on monthly costs.

The review suggests that WDHB investigate options to lease IT hardware.

**Recommendations**

The revised ISSP should better reflect the future IT needs of WDHB by taking into account the review conducted by HealthMAP, particularly noting:

- concern about the number of major projects planned by WDHB, and the impact of this on the WDHB IT department
- risks of the cost of these projects being underestimated.

That an “Action Plan” is prepared annually, that clearly reflects the growth strategy contained in the revised ISSP. This should include, together with other matters; operational budget, project roll out, timeframes for delivery, and performance measurements for outcomes.

WDHB consider leasing IT hardware rather than outright purchase

A phased reduction in outsourcing IT services is introduced, to save WDHB an estimated $165,000 in 2007/08 and $180,0000 in 2008/09.
Continuous quality improvement

According to the most recent Statement of Intent, WDHB has processes in place for managing continuous quality improvement and risk optimising safe purchasing and delivery of health and disability services:

“Clinical Governance processes involving a number of committees such as Drugs and Therapeutic, Health Records, Morbidity and Mortality, Resuscitation, Infection Control and Credentialling, optimise the delivery of health services.

Quality and Risk management maintain centralised systems to monitor adverse events, incidents, complaints including Health and Disability Commissioner Investigations, Medical Misadventure and Treatment Injury Claims and Coronial Hearings. The Provider Division has been accredited with Quality Health New Zealand since 1997. The Whanganui District Health Board complies with the requirements of the Health and Disability Sector (Safety) Act and has been certified under the new regime.

WDHB has developed a three year Quality Improvement Strategy which is consistent with the goals outlined in the Ministry of Health’s strategy “Improving Quality: A Systems Approach for the New Zealand Health and Disability Sector goals”. The strategy seeks to reinforce the organisation’s existing quality and risk management programmes. The following areas have been targeted for improvement:

- Information Management – particularly the interface between primary and secondary care
- Clinical governance – implementation of best practice guidelines
- Clinical indicators and outcome measures
- Utilisation of quality methodology and tools to map and improve systems and processes
- Patient involvement in planning and service delivery
- Access and effectiveness of mainstream services for Maori
- Managing unexpected outcomes
- Internal audit.

Formal audit arrangements have been established through the Central Region Technical Advisory Services, covering all health and disability service providers contracted and funded to provide services within the Whanganui district.”

Quality Health NZ Accreditation

A Quality Health New Zealand accreditation was undertaken in October 2005. A corrective action plan was developed following the review, noting 12 corrective actions (although an additional corrective action was later noted, bringing the total to 13 corrective actions).

The corrective actions mostly related to mental health services (10 out of 13 corrective actions).

The risk rating of the corrective actions is indicated as: high – 3; low – 8; not stated – 2.

Audit processes and clinical practice are common threads in the corrective actions.

- Audit processes appeared in six of the corrective actions. All of these six related to the mental health standards.

- Clinical practice actions again related to the mental health area. They indicated that more sharing of information and better communication to consumers and their families is required, possibly requiring a shift in current clinical practice.

The last report back to Quality Health New Zealand against the corrective action plan was in May 2007.

The accreditation survey included standards relating to WDHB’s management of compliments and complaints. The DHB passed all of these standards.

**Clinical competence**

The review was advised by the Chief Medical Advisor and the Chief Nursing Advisor that they had no concerns about clinical competence at WDHB.

Patient satisfaction data is consistent with this advice. Patient satisfaction at WDHB is around the nationwide average.

**2006/07 First Quarter**

**2006/07 Second Quarter**
However, several events have emerged during the course of the joint review that have been of concern to the review. These are described in the following paragraphs.

**Delays in processing referrals**

In late October/early November 2006 WDHB reported the discovery of 3,500 documents in the Central Patient Administration office of Wanganui Hospital, and indicated the steps they were taking to remedy the situation. The documents were unprocessed, meaning there was a risk to the patients concerned.

Between 27 November and 5 December 2006, an inspection of WDHB was undertaken by HealthCERT (Quality and Safety unit of Clinical Services Directorate, Ministry of Health). The inspection was undertaken pursuant to the Health and Disability Services (Safety) Act 2001 (the Act), following notification by WDHB of a reportable event at the hospital.\(^{23}\)

As a result of the inspection, the Ministry identified 26 correction actions to be undertaken by WDHB. An inspection report was produced in January 2007, describing these actions. The Ministry has amended WDHB’s certification under the Act to add five new conditions. These relate to reporting to the Ministry.

WDHB has produced a response to the inspection report, which addresses each of the 26 corrective actions with an action, assigned to a lead manager, with a timeframe for completion (see Appendix Three for the recommendations and corrective actions).

**Eye surgeon**

There has been a series of complaints relating to an ophthalmologist at WDHB. Two of these complaints were investigated by the Health and Disability Commissioner. One investigation found that there was no breach. The other found that there was a breach, in that the patient was not referred to another specialist in a timely fashion. The Health and Disability Commissioner notified the Medical Council of these complaints. The Medical Council’s appointed a Performance Assessment Committee consisting of three ophthalmologists who did a review in June 2006. The review found no major issues. The Ophthalmology Department was reviewed by an independent ophthalmologist in June 2006. The review found no major issues.

**Gynaecological surgery**

Reports emerged in the media in March about a WDHB gynaecologist linked to up to five failed laparoscopic surgeries. This raised questions about the level of supervision the foreign surgeon was receiving. The Health and Disability Commissioner has initiated a review in relation to these incidents.

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\(^{23}\) The reportable event was the discovery of 3,500 documents in the Central Patient Administration office of Wanganui hospital.
Findings
While these individual issues are outside the scope of this joint review, together they indicate issues with quality systems, and possibly with clinical competence.

Each of these incidents is undergoing (or has already undergone) an appropriate investigation. In some cases, this has resulted in recommendations for improving systems at WDHB. For instance, the delay in processing referrals was investigated by HealthCERT. Recommendations for improvements to quality improvement and referral processes (relating to the Central Patient Administration office) were identified, and an appropriate response has been produced by WDHB (“Corrective Action Plan” - see Appendix Three).

The review considers that a greater emphasis on regular service reviews would help improve the quality of services provided. The consultant working on phase two of the review discussed workflows and processes with the General Manager Public Hospital and Health Services, and other Provider Division Managers. These discussions highlighted a need for more frequent review of services. There is no culture of annual service planning and thus changing workflows are not planned for. It is our view that service reviews should be an annual exercise. This should be board-wide (beyond the Provider Division) and should inform budgeting and the development of the DAP.

The review also believes that a greater focus needs to be placed on quality assurance. There does not appear to be a specific audit function, with formal reporting.

Recommendations
• WDHB introduce an annual schedule of service reviews for all services, which inputs to the development of its budget and DAP
• an internal audit function is established, focused on efficiency gains and reporting to the Risk and Audit Committee.

Independent Clinical Services Review
The review believed that an indepth clinical review of WDHB’s current operations needed to be undertaken. This need has been met by a review of clinical services led by an independent review team, which commenced in April 2007. The outcome of the review will enable the Ministry and WDHB to provide advice to the Minister on the quality of service provided across all services provided by the WDHB Provider Division at the Wanganui hospital. A joint MOH/DHB steering group was established to guide the progress of the review.

The Ministry and WDHB were concerned to:
• ensure the clinical safety and quality of the services provided
• restore public confidence in the services
• preserve the professional reputation of the competent clinical staff practising at Wanganui Hospital
• identify opportunities for quality improvement.

The scope of the review was the full range of emergency, medical and surgical clinical services, including the clinical support services provided by the WDHB Provider Division at Wanganui Hospital.

The reviewers aimed to identify and report on:

• any identified safety issues or unacceptable clinical practice
• clinical governance deficits
• inadequacies in the reporting and management of critical incidents
• barriers to, and opportunities for, professional development and continuous quality improvement
• the strengths of the clinical systems and outcomes.

The reviewers will make recommendations on the short, medium and long term options for correcting any issues identified.

The Clinical Services Review is likely to be released in August 2007.
Financial Analysis

Current and upcoming financial position for upcoming years

WDHB produced a draft DAP in March 2006 showing a deficit position of $4.959m. This was reduced to $2.5m, by introducing funding reductions of $2.4m, and additional savings in the Provider Division of $1.274m. The $2.5m deficit includes an estimated $380k of prior year mental health ringfence expenditure. The target financial position for outyears is likely to be (after adjusting for mental health ringfence expenditure) $1m deficit or less for 2007/08 and break-even for 2008/09.

The Minister approved the WDHB DAP for the 2006/07 year only. Full three year approval was not given because of financial issues relating to the out years.

During the DAP signoff process, it was the Ministry’s view that the 2006/07 deficit of $2.43M projected by WDHB does not represent a significant deterioration on the 2005/06 operational deficit, so should be achievable. The consultant to the review, Graham Aitken, reviewed this assumption by assessing WDHB’s progress to date in making the planned funding reductions. The assessment is summarised in the table below (see Appendix Nine for full assessment).

<table>
<thead>
<tr>
<th>Element</th>
<th>Financial performance for end of year</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall WDHB performance</td>
<td>$0.3m better than DAP and thus $2.2m deficit</td>
<td>The in numerical terms suggests a far worse second six months compared to the first six months (31/12/06 result was $0.7m deficit). The forecast takes some cognisance of the good first half but is still conservative. We should look for a figure between $1.5m and $2.0m.</td>
</tr>
<tr>
<td>Funder Division</td>
<td>$1.6m better than DAP and thus a $0.3m deficit for the year</td>
<td></td>
</tr>
<tr>
<td>Provider Division</td>
<td>$1.3m worse than DAP and thus a $1.9m deficit for the year.</td>
<td>The report above suggests that the $1.264m that is not being saved to date, will be – but not this year. Pressure should be maintained to garner at least some of this and savings will have to begin to come through in the first six months of the 2007/08 year.</td>
</tr>
</tbody>
</table>
Financial Forecast for the Year Ended 30 June 2007

A high level financial forecast for the year ending 30 June 2007 was completed as at 31 December 2006 by WDHB. This indicates a forecast result that is slightly better than planned, with a deficit of $2.213m.

This forecast is based on a consolidated deficit after six months of $0.664m, and includes unplanned gain on sale estimate of $0.5m.

Consolidated Forecast for the year ended 30 June 2007

<table>
<thead>
<tr>
<th>($ 000's)</th>
<th>Forecast</th>
<th>2006-07 Budget</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider Arm Deficit</td>
<td>(1,937)</td>
<td>(140)</td>
<td>(1,797)</td>
</tr>
<tr>
<td>Governance &amp; Funding Adm deficit</td>
<td>(37)</td>
<td>(25)</td>
<td>(12)</td>
</tr>
<tr>
<td>Funder Arm Deficit</td>
<td>(239)</td>
<td>(2,268)</td>
<td>2,029</td>
</tr>
<tr>
<td>Funder Net Surplus / (Deficit)</td>
<td>(2,213)</td>
<td>(2,433)</td>
<td>220</td>
</tr>
</tbody>
</table>

The forecast will inform the preparation of budgets for the 2007/08 financial year.

Revenue

In 2006/07 WDHB received $2,068 per person in population based funding (PBFF); $2,242 in total funding. This is the second highest level of funding per population of all DHBs.

WDHB assumes that its population based funding will remain constant in outyears. This is based on an assumption that its region’s aging population will offset the declining population, resulting in the volume of healthcare remaining relatively constant. The Ministry’s DHB Funding and Performance, Finance Department, assessed this assumption and concluded that, based on the information currently available, it is reasonable to assume that population based funding will remain constant in the foreseeable future.

It should be noted that a review of PBFF is scheduled to start in the near future. WDBH will have an opportunity to provide input to this review.
<table>
<thead>
<tr>
<th>DHB</th>
<th>DHB PBFF plus transitional funding</th>
<th>DHB population 2006/07 based on 2005 data</th>
<th>Dollars per person</th>
<th>Percent Above /Below average</th>
<th>DHB Funding 2006/07</th>
<th>DHB population 2006/07 based on 2005 data</th>
<th>Dollars per person</th>
<th>Percent Above /Below average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auckland</td>
<td>667,499,678</td>
<td>433,725</td>
<td>1,538.99</td>
<td>-9%</td>
<td>731,135,648</td>
<td>433,725</td>
<td>1,685.71</td>
<td>-8%</td>
</tr>
<tr>
<td>Bay of Plenty</td>
<td>382,011,717</td>
<td>199,995</td>
<td>1,910.11</td>
<td>13%</td>
<td>404,069,083</td>
<td>199,995</td>
<td>2,020.40</td>
<td>10%</td>
</tr>
<tr>
<td>Canterbury</td>
<td>790,821,673</td>
<td>473,095</td>
<td>1,671.59</td>
<td>-1%</td>
<td>869,076,841</td>
<td>473,095</td>
<td>1,837.00</td>
<td>0%</td>
</tr>
<tr>
<td>Capital &amp; Coast</td>
<td>408,328,604</td>
<td>276,685</td>
<td>1,475.79</td>
<td>-13%</td>
<td>442,100,700</td>
<td>276,685</td>
<td>1,597.85</td>
<td>-13%</td>
</tr>
<tr>
<td>Counties Manukau</td>
<td>701,405,450</td>
<td>444,330</td>
<td>1,578.57</td>
<td>-7%</td>
<td>762,439,731</td>
<td>444,330</td>
<td>1,715.93</td>
<td>-7%</td>
</tr>
<tr>
<td>Hawkes Bay</td>
<td>280,470,168</td>
<td>150,415</td>
<td>1,864.64</td>
<td>10%</td>
<td>304,607,021</td>
<td>150,415</td>
<td>2,025.11</td>
<td>10%</td>
</tr>
<tr>
<td>Hutt</td>
<td>221,375,917</td>
<td>138,970</td>
<td>1,592.98</td>
<td>-6%</td>
<td>245,397,742</td>
<td>138,970</td>
<td>1,765.83</td>
<td>-4%</td>
</tr>
<tr>
<td>Lakes</td>
<td>184,895,481</td>
<td>102,925</td>
<td>1,796.41</td>
<td>6%</td>
<td>206,722,901</td>
<td>102,925</td>
<td>2,008.48</td>
<td>9%</td>
</tr>
<tr>
<td>MidCentral</td>
<td>289,463,614</td>
<td>163,660</td>
<td>1,768.69</td>
<td>4%</td>
<td>312,695,964</td>
<td>163,660</td>
<td>1,910.64</td>
<td>4%</td>
</tr>
<tr>
<td>Nelson Marlborough</td>
<td>243,353,790</td>
<td>137,105</td>
<td>1,774.94</td>
<td>5%</td>
<td>258,107,573</td>
<td>137,105</td>
<td>1,882.55</td>
<td>2%</td>
</tr>
<tr>
<td>Northland</td>
<td>294,726,765</td>
<td>149,419</td>
<td>1,972.49</td>
<td>16%</td>
<td>325,507,727</td>
<td>149,419</td>
<td>2,178.49</td>
<td>19%</td>
</tr>
<tr>
<td>Otago</td>
<td>336,486,496</td>
<td>181,780</td>
<td>1,851.06</td>
<td>9%</td>
<td>363,890,976</td>
<td>181,780</td>
<td>2,001.82</td>
<td>9%</td>
</tr>
<tr>
<td>South Canterbury</td>
<td>105,484,700</td>
<td>53,665</td>
<td>1,965.61</td>
<td>16%</td>
<td>113,731,973</td>
<td>53,665</td>
<td>2,119.30</td>
<td>15%</td>
</tr>
<tr>
<td>Southland</td>
<td>185,666,660</td>
<td>109,890</td>
<td>1,689.57</td>
<td>0%</td>
<td>203,064,988</td>
<td>109,890</td>
<td>1,847.89</td>
<td>1%</td>
</tr>
<tr>
<td>Tairawhiti</td>
<td>2,047.76</td>
<td></td>
<td></td>
<td>21%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Region</td>
<td>Population</td>
<td>Funding</td>
<td>Percentage</td>
<td>Region</td>
<td>Population</td>
<td>Funding</td>
<td>Percentage</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>------------</td>
<td>---------</td>
<td>------------</td>
<td>------------</td>
<td>------------</td>
<td>---------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>Taranaki</td>
<td>91,624,788</td>
<td>44,744</td>
<td>14%</td>
<td>Taranaki</td>
<td>100,248,771</td>
<td>44,744</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>Waikato</td>
<td>201,442,083</td>
<td>104,732</td>
<td>1%</td>
<td>Waikato</td>
<td>222,675,166</td>
<td>104,732</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Wairarapa</td>
<td>588,338,207</td>
<td>342,255</td>
<td>18%</td>
<td>Wairarapa</td>
<td>638,814,218</td>
<td>342,255</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>Waitemata</td>
<td>78,300,427</td>
<td>39,277</td>
<td>-11%</td>
<td>Waitemata</td>
<td>85,620,692</td>
<td>39,277</td>
<td>-14%</td>
<td></td>
</tr>
<tr>
<td>West Coast</td>
<td>756,780,594</td>
<td>503,050</td>
<td>52%</td>
<td>West Coast</td>
<td>794,316,664</td>
<td>503,050</td>
<td>52%</td>
<td></td>
</tr>
<tr>
<td>Whanganui</td>
<td>78,647,008</td>
<td>30,540</td>
<td>22%</td>
<td>Whanganui</td>
<td>85,212,124</td>
<td>30,540</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7,017,011,677</td>
<td>4,143,063</td>
<td>1,693.68</td>
<td>Total</td>
<td>7,610,270,666</td>
<td>4,143,063</td>
<td>1,836.87</td>
<td></td>
</tr>
</tbody>
</table>

Note: based on Dec 05 funding advice for 2006/07. Used PBFF funding plus transitional as both add to population shares. Excluded all top-slices as not paid on a population basis. Used 2005 population set as those were used for 2006/07 PBFF.

Source: DHB F & P Finance, Funding Policy
**Expenditure**

The graph below shows the broad split of expenditure by service.

![Expenditure by year by provider](image)

Source: Community and Public Health Advisory Committee paper, 24 November 2006

WDHB pays a large amount of money to MidCentral and other DHBs for services to be provided to its population (‘inter-district flow’ (IDF) outflows). Some payment is received from other DHBs for services provided by WDHB for patients from the other DHBs’ populations (IDF inflows).

Overall, the outflows are significantly higher than the inflows. As the table below shows, overall WDHB received $8.5m in IDF payments in 2005/06, and spent $23.2m in IDF outflow payment. Mental Health is an exception, with a net inflow of over $3m.

<table>
<thead>
<tr>
<th>2005/06</th>
<th>Personal Health</th>
<th>Mental Health</th>
<th>Disability Support Services</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider Division</td>
<td>2,211,013</td>
<td>4,835,060</td>
<td>107,832</td>
<td>7,153,905</td>
</tr>
<tr>
<td>Other Providers</td>
<td>1,336,488</td>
<td>-</td>
<td>-</td>
<td>1,336,488</td>
</tr>
<tr>
<td>Inflows</td>
<td>3,547,501</td>
<td>4,835,060</td>
<td>107,832</td>
<td>8,490,393</td>
</tr>
<tr>
<td>Outflows</td>
<td>(21,391,889)</td>
<td>(1,558,062)</td>
<td>(204,933)</td>
<td>(23,154,884)</td>
</tr>
<tr>
<td>Netflows</td>
<td>(17,844,388)</td>
<td>3,276,998</td>
<td>(97,101)</td>
<td>(14,664,491)</td>
</tr>
</tbody>
</table>

Source: Community and Public Health Advisory Committee paper, 24 November 2006
Findings

DHB Provider Division financial results were assessed, to compare expenditure across DHBs.

The consultant to Phase Two of the review (Graham Aitken) assessed WDHB’s expenditure by comparing the proportion of spending (expenditure as a percentage of total revenue) on different categories of expenses, to the DHBs. The aim of this assessment was to indicate options for WDHB to explore potential efficiencies.

Three areas were identified where potential efficiencies may be achieved.

Senior Medical Officers

WDHB is almost operating at the level large boards operate at. Salary information indicates that SMOs are paid (including superannuation benefit) at about $30,000 pa above their base rate. The consultant suggests there is potential for a 2% – 4% reduction in the level as a proportion of total revenue, to bring this spending in line with other small to medium boards. This equates to a $150,000 to $300,000 potential saving.

Comparative data indicates that SMO expenditure at WDHB operates at about 17% of revenue whilst other DHBs have achieved 12% and 14%. WDHB is therefore 17/12 above least cost, or 42%. The “least cost ratio” suggests that a reduction of something in the vicinity of $4m per year annualised is possible. The consultant suggests that, at a conservative estimate, 2% of this could be saved. This gives a six month figure of (7.6*0.02) $152,000 or about $300,000 annualised.

A likely source of achieving these savings relate to WDHB increasing the generalist skills of its SMOs. This may be achieved by developing the training opportunities for SMOs. This could include annual time spent off-site to continue to develop areas of strong interest that each SMO will have and will be required for the service model in use. An agreement with other DHB’s could be sought to develop a system of staff rotation. This type of agreement is already operating between Wairarapa and Counties-Manukau DHBs.

Graham Aitken also indicates that the number of Psychiatrists may be high compared to other DHBs. Given the high level of spending on Mental Health services compared to other DHBs, the review suggests that WDHB review the number of Psychiatrists as part of its investigation of the appropriate structure to deliver mental health services.
IT and Communications
The table below shows expenditure on IT and Communications by WDHB, compared to similar DHBs.

<table>
<thead>
<tr>
<th>DHB</th>
<th>South Canty</th>
<th>Tairawhiti</th>
<th>Wairararapa</th>
<th>West Coast</th>
<th>Whanganui</th>
<th>Lakes</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Systems &amp; Telecom</td>
<td>$846</td>
<td>1.57%</td>
<td>$1818</td>
<td>4.03%</td>
<td>$1197</td>
<td>3.05%</td>
<td>$963</td>
</tr>
<tr>
<td>2006</td>
<td>793</td>
<td>1.48%</td>
<td>848</td>
<td>1.88%</td>
<td>1778</td>
<td>4.52%</td>
<td>1084</td>
</tr>
<tr>
<td>2005 Audited</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average spend as a % of pop over 2yrs</td>
<td>1.53%</td>
<td>2.95%</td>
<td>3.79%</td>
<td>3.36%</td>
<td>3.58%</td>
<td>2.41%</td>
<td></td>
</tr>
<tr>
<td>Average spend over 2 yr % spend above average</td>
<td>820</td>
<td>1333</td>
<td>1488</td>
<td>1024</td>
<td>2270</td>
<td>2480</td>
<td>1569</td>
</tr>
<tr>
<td>Population</td>
<td>53718</td>
<td>45110</td>
<td>39298</td>
<td>30445</td>
<td>63340</td>
<td>102760</td>
<td></td>
</tr>
</tbody>
</table>

Source: Consolidated DHB Financial results (000)

Using the same method of analysis as described above, the consultant suggests that it may be possible to reduce expenditure on IT and Communications costs by about $130,000 per annum.

Other analysis of IT done as part of this review (see section earlier in this report) reinforced that there is potential to achieve savings in this area. This analysis recommended a phased reduction in outsourcing IT services is introduced, to save WDHB an estimated $165,000 in 2007/08 and $180,0000 in 2008/09.

Treatment Disposables
Comparative expenditure data shows WDHB spent 3.8 percent of its total expenditure on treatment disposables in the first six months of 2006/07. Some other comparable DHBs were able to achieve lower proportions of spending. For example; 0.2% at South Canterbury DHB, and 1.9% at West Coast DHB. Graham Aitken used the 1.9 percent figure as a comparison, to identify that the $1.7 million spent by WDHB during the 1st 6 months of 2006/07 is twice the level it could be (ie $0.85 million higher than it could be which equals $1.7 million over a year). Based on Graham Aitken's advice, the review suggests that a potential cost reduction of 10% of this amount ($170,000) should be possible.

Other potential efficiencies
Using the same method of analysis, other areas that appear to have potential for savings are:

- nursing
- other clinical and client costs
- hotel services (marginal)

FINAL 72
• professional fees and expertise

**Recommendations**

- WDHB pursue cost reduction strategies to identify potential savings of at least $300,000 in SMO expenditure, and $170,000 in expenditure on treatment disposables
- a plan be devised to provide more generalist SMO services. This plan should involve other larger DHBs for advice and practice-level purposes, diploma and certificate courses and specific telemedicine training and opportunities
- WDHB review the number of Psychiatrists as part of its investigation of the appropriate structure to deliver mental health services
- WDHB fully investigate potential for achieving savings in expenditure on nursing, other clinical and client costs, hotel services and professional fees and expertise.

**Model for comparison of funding allocations**

The review produced a model comparing funding allocations per head of population, for DHBs comparable to WDHB.\(^{24}\)

The model shows how funding is allocated to each services, and breaks the funding down into local population funding allocations, provider Internal Revenue, IDF inflow and total funding.

The purpose of adapting this model was to identify the major areas of spending, and assess WDHB’s ability to control costs.

**Findings**

More indepth analysis is needed to draw conclusions from this model. WDHB will continue to review this analysis, and the findings will be reassessed as part of the follow-up to this joint review.

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\(^{24}\) The model had originally been developed by an external consultant for Central Region Chief Information Officers, to compare funding allocations of central region DHBs.
Configuration and future adaptability of facilities

Long term viability of services

The HSR business case assumes full secondary service delivery will be clinically and financially sustainable.

The review took place after plans for the HSR had been developed and independently assessed. Our ability to look at detailed processes within the Wanganui hospital was therefore constrained. However, an external clinical consultant was hired to provide advice to the Review on the models of care outlined in the business case. This included an assessment of the long term viability of the models of care.

The consultant identified two areas of service delivery where the proposed models of care, as described in the business case, may be neither financially nor clinically viable in the longer term: paediatrics and obstetrics.

Health Services Redesign

The key focus of the business case proposal is to consolidate the hospital operation into a more compact, flexible and more efficient operation. Other key benefits are seen as a more user friendly and easier accessible hospital for patients, staff and the public.

Efficiency gains are expected by WDHB to occur on a phased timeline across the development of the project as listed in the table below. The phasing of efficiency gains results as the project coincides with the natural turnover of staff over the period of the build.

<table>
<thead>
<tr>
<th>Year</th>
<th>Cumulative Savings Per Annum</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005/06</td>
<td>400k</td>
</tr>
<tr>
<td>2006/07</td>
<td>1,088k</td>
</tr>
<tr>
<td>2007/08</td>
<td>1,815k</td>
</tr>
<tr>
<td>2008/09</td>
<td>2,706k</td>
</tr>
</tbody>
</table>

Efficiency savings are driven by service change linked with progressive redevelopment of the facilities. The key themes in developing these efficiencies are:

- reduction in acute service utilisation of inpatient beds and emergency department and associated with this an extended district nursing service response
- change in clinical practice – theatres, collocated and consolidation of services requires staff to practice differently
- improved processes to reduce staffing resources associated with compensating for poor systems and processes.
An assessment of these efficiencies was made by the Ministry outside of this review, as part of the business case review process. This was based on benchmarking conducted by an independent external consultant, and attendance at a value management workshop. There is ongoing monitoring of the HSR project by the Crown, against criteria standard to all major capital projects funded by Government.

Phase One of the Joint Review focused on reviewing the assumptions of the HSR Business Case. The review interviewed WDHB management and clinical staff, neighbouring DHBs, and other organisations such as local Public Health Organisations. These interviews identified a need to assess assumptions of the HSR business case relating to the mix of activities/models of care; in particular the extent to which they meet demand, align with Ministry strategies and the configuration of the HSR. An external clinical consultant was hired to provide this advice. The consultant examined whether the models of care are consistent with demand for services and their alignment with Ministry strategies. He also provided advice on the strengths, limitations and long term clinical viability of the models of care.

*Findings*

The clinical consultant found that the service planning generally meets the identified needs of the population and are clinically viable. However, two areas of service delivery were identified where the proposed models of care, as described in the business case, may be neither financially nor clinically viable in the longer term: paediatrics and obstetrics (see the section earlier in this report).

An element of the review of the HSR Business Case was the estimation of a bed model to verify the assumptions concerning the number of beds required to meet the future health needs of the DHB population catchment. An important assumption in the Business Case was the redirection of IDF from MidCentral DHB back to WDHB. A bed modelling exercise was conducted to test these assumptions by modelling the effect of IDF movements on the projected number of beds. This modelling found that the addition of the IDF flows to the base data raised the projected number of beds needed by WDHB by:

- 10 beds for 2005/06
- 12 beds for 2010/11
- 13 beds for 2015/16
- 11 beds for 2020/21

WDHB has assured the review that the newly developed hospital will be flexible to adapt in the future. The advice of both consultants to this review is that this flexibility should be sufficient to absorb changing models of care in the foreseeable future.

*Future usefulness of buildings on Wanganui Hospital campus*

WDHB controls assets with a book value of $50m, and replacement value of nearly three times this value. The majority of the asset value is in buildings. Clinical buildings are generally in reasonable order and annual maintenance programmes
allow for their upkeep. However, deferred maintenance issues exist. A seismic review caused a significant change in thinking with respect to future site planning.

The buildings used to provide the bulk of services on the Wanganui Hospital campus are being redeveloped as part of the HSR, but a number of other buildings are also located on the campus. These are used for a variety of purposes; including cafeteria facilities, mental health facilities, worksheds, laundry and staff accommodation. There are approximately 30 buildings on a site of 142190 square metres. A small number go back many years and are in a state of decline, while others are more recent and are well maintained.

In March 2004 the WDHB Board transferred surplus properties to the Residual Health Management Unit, which generated a $1m payment. According to WDHB’s 2006/07 – 2008/09 Statement of Intent, no further surplus properties exist, but it would be desirable to sell a portion of the Wanganui campus to reduce ongoing maintenance costs. Some consideration has been given to this by WDHB, but there does not appear to have been a thorough examination. This is despite the National Capital Committee agreement to the HSR redevelopment requiring WDHB to carry out “a complete Wanganui Hospital campus masterplan” (i.e. for land and facilities outside the scope of the HSR business case, for which master planning had not yet been completed).

**Inspection of buildings**

The review conducted a high level review of the buildings on Wanganui Hospital campus, that lie outside of the HSR redevelopment, to assess the scope for identifying and disposing of surplus buildings. This involved an interview with the Facilities Manager, review of documents, and inspection of all buildings. This identified three buildings not in use, and potential for better utilising other buildings

**Findings**

The review assesses that reduction and consolidation of building stock should enable savings in maintenance of up to 10%). This equates to savings of $135,845.

**Recommendation**

WDHB:
- commission the ‘campus masterplan’, to create potential savings through consolidation and disposal of surplus buildings and land
- review the works contract, due for renewal 2008, in association with the campus masterplan development
- aim to dispose of responsibility for surplus buildings and reduce the costs of care and maintenance.