

Attachment I Terms of reference

IPART Review of Key Issues in New South Wales Health

This review is to be conducted by IPART under Section 9 of the *Independent Pricing and Regulatory Tribunal Act, 1992*.

‘Strategic Direction for Health 2000–2005’ identified the four key goals of NSW Health:

- 1 healthier people
- 2 fairer access
- 3 quality health care
- 4 better value.

Although the budget for NSW Health has increased in real terms, the challenge remains to meet these goals in the context of rising community expectations.

In the context of:

- 1 the above goals and scenarios for the future demand for health services
- 2 the implementation of the NSW Government’s Action Plan for Health
- 3 the negotiations for the renewal of the Australian Health Care Agreement from 1 July 2003 and relevant issues identified by NSW Health.

IPART is to review and report on:

- 1 issues arising from Commonwealth and State responsibilities for health and associated funding arrangements
- 2 initiatives of NSW Health since the 1999 IPART review to improve the delivery of health services by the public health system through greater productivity and reform
- 3 opportunities to further enhance the effective, efficient and equitable allocation and utilisation of available health resources
- 4 appropriate indicators of performance in the NSW health system to improve health outcomes in the quality dimensions of safety, effectiveness, appropriateness, consumer participation, access and efficiency
- 5 the governance structures across NSW Health.

This review is to consider the impact of recent reviews of NSW Health including:

- the IPART Review (1999)
- the Health Council (2000)
- the Quality Framework (2000)
- the Committee on Health Services in Smaller Towns (2000)
- the Auditor-General.

In conducting the review IPART is to consult with relevant stakeholders and present its final report by 30 June 2003.

Attachment 2 Recommendations

Reform of the National Health System

- 1 A national inquiry into the future directions of the Australian health system should be established under the auspices of COAG and completed within 12 months, to especially progress collaborative service delivery and more unified funding.
- 2 Pending more substantial reform following the proposed national inquiry, NSW should continue to work with the Commonwealth Government to progress innovative and joint service delivery models that deliver better health outcomes for patients and the community.

Planning to focus on patient needs

- 3 NSW Health should undertake a fundamental review of strategic directions to ensure that they are clearly focused on the patient and the health of the community, developed in conjunction with policy-oriented scenario planning, and provide a vision of the health system in 5 and 20 years' time.
- 4 NSW Health should develop a State health plan. The plan should include specific scenarios for models of care and the major causes of ill health and death, taking into account major cost drivers in the system, and be used to guide plans for metropolitan and rural NSW, for regions and for Areas.
- 5 The NSW Government should conduct a Summit on the Future Directions in Health to assist NSW Health's long-term planning process and engage the community in this process.
- 6 In developing the new State health plan, the Department should actively involve the Health Care Advisory Council (HCAC), the new Institute for Clinical Excellence and Patient Care (ICE-PC), Health Priority Taskforces and the Health Participation Council.
- 7 The role of primary health care, including public and community health, in disease prevention and health promotion should be a major priority in the planning process and consequent funding decisions.
- 8 AHSs must develop strategic health plans that cover the medium term and must be consistent with the State health plan, clinical service guidelines, the AHS's four-year budget and approved capital expenditure programs.
- 9 The Department must take responsibility for the development of metropolitan and rural Area plans, and any other cross-Area plans in consultation with the HCAC, AHSs and other stakeholders. These plans should be guided by the State health plan.
- 10 AHSs need to ensure there are specific plans for population health and report outcomes against these plans. The AHSs should put systems in place with the Department to ensure funding is not diverted into general services.

Better quality care and patient safety

- 11 The Institute for Clinical Excellence (ICE) should be transformed into the Institute for Clinical Excellence and Patient Care (ICE-PC) and have its role expanded to include leading the development of clinical frameworks and guidelines, assisting with their implementation and improving quality and safety systems and processes throughout the NSW health sector.
- 12 The Department, in close consultation with the HCAC, should identify State-wide priorities for the development of clinical guidelines by the ICE-PC to ensure that the work of the ICE-PC is integrated with the strategic directions and State health plan.
- 13 Clinical guidelines developed by the ICE-PC should be referred to the HCAC for review and comment prior to submission to the Department for endorsement and State-wide application.
- 14 The Health Priority Taskforces proposed in recommendation 26 should support the ICE-PC to realign the operation of the health system to improve the quality of patient care.
- 15 The ICE-PC's funding base should be reviewed to ensure it can fully and effectively perform its roles.
- 16 The Department should have a strong monitoring, auditing and reporting role to enforce the promotion of quality across the health system.
- 17 Consistent with national and international trends, the Department should publish annually, in a consolidated form, the key indicators of quality for every public hospital and facility in the NSW health system.
- 18 Every AHS and health facility should be obliged to have in place an effective clinical governance structure to achieve improved quality and patient care outcomes.
- 19 The Health Care Complaints Commission's operations, legislation and funding should be reviewed to ensure it effectively performs its functions, especially its investigation and prosecutorial functions.

More integrated service delivery

- 20 The coordinated human service approach should be strengthened through the trialling and subsequent evaluation of regional Human Services Action Plans developed through Regional Services Boards in three AHSs. This could be further progressed by other mechanisms developed through Regional Services Boards such as a pooled regional funding approach.
- 21 NSW Health should progress strategic reform of the health system and stronger linkages with other government objectives through the relevant committee of Cabinet.
- 22 A CEOs group of Premier's, The Cabinet Office, Health, Community Services, Police, Corrective Services, Juvenile Justice, and Disability, Ageing and Home Care and other relevant agencies should oversee the development of a cross-departmental strategy for mental health.

- 23 NSW Health should review its regulatory function in aged care with the purpose of minimising duplication of the Commonwealth's role. If the function is to be retained, NSW Health should consider whether it is more appropriately located within the Department of Ageing, Disability and Home Care.

Stronger structures for clinician and community participation

- 24 A new peak advisory body, the Health Care Advisory Council (HCAC), should be established to replace the Clinical Council.
- 25 The HCAC's key roles should be to guide the Department in the development of the State health plan and clinical guidelines, and advise the Department and the Minister on clinical and health issues. The HCAC should also be able to initiate policy ideas for consideration by the Department and the Minister.
- 26 The current specialist clinical and other groups established under the GAP process (including the GMTT) should be replaced by 11 Health Priority Taskforces (HPTs) to streamline and reinforce clinician and community input to, and leadership of, the change process commenced under GAP. The HPTs should be focused on:
- Workforce Development
 - Aged and Continuing Care (Care of Older People, Chronic Care, Community Health, Primary Health Care and Post-acute Care)
 - Indigenous Health
 - Public Health Forum
 - Maternity and Child Health
 - Rural Health
 - Acute Medical and Surgical Services
 - Mental Health
 - Critical Care Services (Intensive Care, Emergency and Trauma)
 - Cancer (through the NSW Cancer Institute)
 - Information Management and Technology.
- 27 The clinical co-chairs of the HPTs should be part-time members of the Department and members of the HCAC.
- 28 The HPTs should report through the ICE-PC for quality issues and the HCAC for other issues.
- 29 The Department should provide support to champion the work of the HCAC and HPTs by providing policy development, logistics and secretariat support.
- 30 Each AHS should establish permanent, effective community participation arrangements to ensure the role of the community is embedded in the planning, decision-making and performance-monitoring processes within the AHS.
- 31 These arrangements should include best-practice models of community participation and communication, and AHSs should ensure they are adequately supported and resourced.

More equitable health outcomes and more effective funding arrangements

- 32 The current system of three-year budgets should be extended to four-year rolling budgets to give greater budget certainty to the AHSs.
- 33 The Department's recently revised Resource Distribution Formula (RDF) should be phased in over a period of four years or less, depending on the availability of growth funds for use as transition funding to ease the adjustment process.
- 34 The current 2 per cent allowance under the actual RDF share should be phased out so that underfunded AHSs receive their true RDF share.
- 35 The RDF should be updated each year, taking into account actual and prospective flow reversals.
- 36 The actual formula for the RDF, as opposed to data input, should be subjected to a fundamental review at least every four years.
- 37 The Department should consider providing a pool of growth funds to further enhance the provision of services closer to the patient to enable services to be established or relocated to growth and rural areas.
- 38 The mental health RDF should be implemented as soon as possible.
- 39 The Department's proposed further roll-out of budget holding should proceed, providing that the weaknesses in the initial phase are addressed, to achieve the desired outcome for the populations of each Area.
- 40 The episode costing system should be mandatory for all AHSs and be fully adopted across the health system for appropriate services as the means by which AHSs can manage their services and budgets.
- 41 The Department should implement its policy for capital charging in line with its proposed timetable.
- 42 NSW Health should fully explore the use of PFPs in funding and delivering their capital projects.
- 43 In relation to State-wide services, the Department should:
 - continue the system of State-wide program funding but on a restricted basis, limiting its application to a maximum of four years
 - finalise the State-wide and selected speciality funding policy, to be progressively implemented from July, 2003. Funding under this policy should be transparent and be accompanied with output-based or outcome-based performance agreements to ensure accountability.
- 44 The Department should retain a pool of contingency funding each year similar to the Treasurer's Advance for the whole general government sector.
- 45 The Department should establish an Innovation Fund to advance clinical and corporate reforms to the system.
- 46 AHS and statutory corporation budgets and their outcomes should be published each year.

Better performance through clearer roles and accountabilities

- 47 The current AHS structure should be retained but the respective roles and responsibilities of the Department and AHSs should be clarified. The Department's role should be focused on strategic planning and policy-setting roles as outlined in the report. AHSs should be made more accountable for meeting the health needs of their areas.
- 48 The current Senior Executive Forum should be strengthened and reconfigured as a Senior Executive Advisory Board, to facilitate greater input by AHS and statutory corporation CEOs into system-wide matters and to provide a vehicle for improving executive communication within the NSW health system.
- 49 The Department should formally establish an Area (and other entities) Chairpersons' Forum that meets regularly with the departmental executive and the Minister.
- 50 The Department should conduct an efficiency review of circulars, policies, directions, procedures and committees aimed at reducing the 'red tape' in the system.
- 51 The Department should establish an Innovation Exchange to enable all components of the health system to share ideas and advance best-practice models, as a means of progressing reform in the system.
- 52 AHS strategic health plans should be submitted to the Department for review. Each AHS must develop its strategic health plan in line with the requirements of the State health plan, State-wide policies, four-year rolling budgets, approved capital projects and the targets and outcomes set out in their performance agreements with the Department. The Department should review plans for consistency with these requirements. Where an inconsistency is identified it should notify the AHS and request resubmission.
- 53 The Department should continue to approve major capital programs included in Area plans.
- 54 The role of AHS and statutory corporation boards should focus on strategic leadership, not day-to-day management. Board committees should have a similar focus and be supplemented by non-board members.
- 55 AHS and statutory corporation boards should be held accountable for the performance of their AHS via a streamlined performance agreement with the Minister, and be assessed and audited annually by the Department and by themselves.
- 56 AHS and statutory corporation board members should be chosen on merit to provide a variety of skills, and include at least one senior practising clinician. Board members should receive improved training.
- 57 The terms of AHS and statutory corporation board members should be limited to three years, and members should serve a maximum of two terms.
- 58 Remuneration levels for AHS and statutory corporation board members should be reviewed on a regular basis to reflect roles and accountabilities.
- 59 AHS and statutory corporation CEOs should no longer be members of boards, should be selected by a panel that includes the Chair of the AHS board and the Director-General, and should be subject to performance agreements with their board and the Director-General. The CEOs should have similar agreements with their facility, sectoral or clinical stream managers.

- 60 The boards of Sydney metropolitan and Hunter, Illawarra and the Central Coast AHSs should have no more than seven members and there should be a spill of existing board members. Rural AHS boards should be maintained at their current size (except that CEOs will no longer be members).
- 61 AHS and statutory corporation boards and CEOs that significantly or consistently fail to achieve the health and/or financial goals set out in their performance agreements should be subject to sanctions. The ultimate sanction should be their dismissal, in which case the board and/or CEO should be replaced.
- 62 The Probation and Parole Service should be reviewed by the Council on the Cost and Quality of Government to reduce any duplication of its functions with the Corrections Health Service (CHS).
- 63 The Department should establish a formal and integrated network between emergency departments in the metropolitan Areas and the Ambulance Service, building on the Emergency Department Network Activation system.
- 64 To progress this network, the position of Coordinator of Ambulances and Emergency Care should be established. It should be filled by a senior clinician and based at the Ambulance Service's Sydney Operations Centre.
- 65 The pricing schedule of ambulance services should be reviewed to ensure more efficient use of ambulances.

More efficient support services

- 66 NSW Health must ensure that the opportunity for efficiency gains, through the aggregation of corporate and shared services are realised and used to provide better health care.
- 67 IPART considers that this can be achieved through a new body, the Health Shared Services Corporation, established to ensure corporate and other services currently provided by the Department, AHSs and statutory corporations are managed in the most cost-effective manner. The current restrictions limiting contracting out or market testing for clinical services should be removed.
- 68 The new corporation should be governed by a board, chaired by the Director-General, with four Area or statutory corporation CEOs and two private sector representatives. The Area and statutory corporation CEOs should be rotated approximately every three years. The corporation should be managed by a full-time General Manager.
- 69 A taskforce should be established to assist in determining the functions to be transferred to the new corporation or to other Government agencies, and to progress business re-engineering. It should consist of the Department, AHSs, statutory corporations, Premier's Department, Treasury and the Department of Commerce.
- 70 Each service should be subject to a business case to determine the best model for its provision whether as a centralised service, by a group of AHSs, or by other contractual means. Savings from the new procedures should be retained within the Health system.
- 71 The option of outsourcing services should also be examined by the corporation for each business case.

- 72 The Chair of the corporation should have reserve powers of veto to ensure the mandated approach can be applied where it is essential to the efficiency and effectiveness of the system, such as Information Technology.
- 73 Increased uniformity of Information Technology and management solutions is essential, and it is an area that requires clear direction. This should be a high priority for the new Health Shared Services Corporation.
- 74 Treasury should review the funding cap for capital to enable the Department's IT program to proceed as soon as possible, subject to final review of their business cases by Treasury and the Office of Information Technology.

More integrated performance measurement system

- 75 The Department, AHSs, statutory corporations and facilities should draw on best practice in NSW, Australia and overseas, such as the use of balanced scorecard and strategic mapping approaches. Full engagement of the CEO is critical to the success of any approach.
- 76 Where strategic mapping is adopted, the maps should be linked to State-wide strategic directions and State health plans. Strategic maps and locally developed indicators for AHSs should cascade down from the Department's dashboard of key performance indicators (KPIs) for the health system.
- 77 The management 'dashboard' indicators developed by the Department's Committee should be used, taking effect on 1 July 2004. The indicators are high level and reflect system-wide priorities but are capable of being 'drilled down' to highlight variation in performance.
- 78 The new performance measurement system should be underpinned by an integrated IT system that produces timely data.
- 79 Facilities should start reporting patient satisfaction levels.
- 80 A system of incentives and sanctions based on performance against targets and outcomes set in performance agreements should be established. The primary purpose of this recommendation is to enhance performance but it would also ensure that the indicators developed are an integral part of the accountability framework.

A more sustainable health workforce

- 81 The Department should establish a single strategic workforce planning unit to coordinate the development of this workforce plan, and to substantially improve the base of information about NSW Health's workforce.
- 82 The Department should develop an integrated workforce plan designed to ensure a skilled, flexible and adaptable workforce that meets changing patient needs into the future.
- 83 The Department should engage with health care professionals and their unions to address the need to change these professionals' scopes and patterns of practice to enable the development of new models of service delivery and provide more satisfying work environments for employees.

- 84 NSW Health should establish a comprehensive management training program aimed at identifying potential managers and equipping them with the skills necessary to fulfil future management needs.
- 85 AHSs, assisted by the Department, should invest in the development and training of casual nurses to optimise the use of skills and experience available in casual pools. AHSs should accommodate the need of some nurses for high levels of flexibility, perhaps by developing a two-tiered casual pool structure.
- 86 The Department, together with the AHSs, should develop and implement a policy that limits use of agency nurses.
- 87 AHSs should improve the productivity of front-line nurse and other managers by providing more training in managerial skills and additional administrative support.
- 88 The Department should work towards streamlined and centrally coordinated procedures for overseas recruitment of medical staff.
- 89 AHSs should consider appointing more doctors to the AHS rather than individual facilities. This could be extended to clinical network appointments with the cooperation of other AHSs.
- 90 The Department and AHSs should develop strategies to control the increase in salaried medical staff costs. This should include an evaluation of the optimal ratio of VMOs to salaried staff. The Department and AHSs should develop coordinated strategies to achieve greater equity in the distribution of medical staff across Areas.
- 91 The Department should consider strategies for attracting and retaining allied health professionals to the public health system including allowing them to work in both the private and public health sector.

Attachment 3 List of consultation meetings

Organisations

Ambulance Service
Australian Medical Association
Australian Salaried Medical Officer's Federation
Central Sydney Area Health Service
Clinical Council
Corrections Health Service
Darlinghurst Community Health Centre (post-acute care team)
Department of Health
Department of Health and Aged Care, Commonwealth
Department of Human Services, Victoria
Departmental Savings Taskforce
External Review and Evaluation Reference Group
Far West Area Health Service
Greater Metropolitan Transition Taskforce
Health Care Complaints Commission
Health Participation Council
Hunter Area Health Service
Illawarra Area Health Service
Institute of Clinical Excellence
Medical Staff Executive Council
Medical Training and Education Committee
Mid North Coast Area Health Service
Mid North Coast Consumer and Community Health Forum
Ministerial Advisory Committee on Quality
Northern Sydney Area Health Service
New England Area Health Service
NSW Treasury
Post-graduate Medical Council
Premier's Department
Productivity Commission
Public Health Forum
Quadrangles (Greater Western Sydney, Southern, Northern)

Rural Area Health Service CEOs Group
Senior Executive Forum
South East Sydney Area Health Service
South West Sydney Area Health Service
The Cabinet Office
Western Sydney Area Health Service

Individuals

Professor Stephen Duckett
Professor John Horvarth
Dr Sue Ieraci
Professor Brian McCaughan
Dr Louis McGuigan
Professor Ron Penny
Professor Beverley Raphael

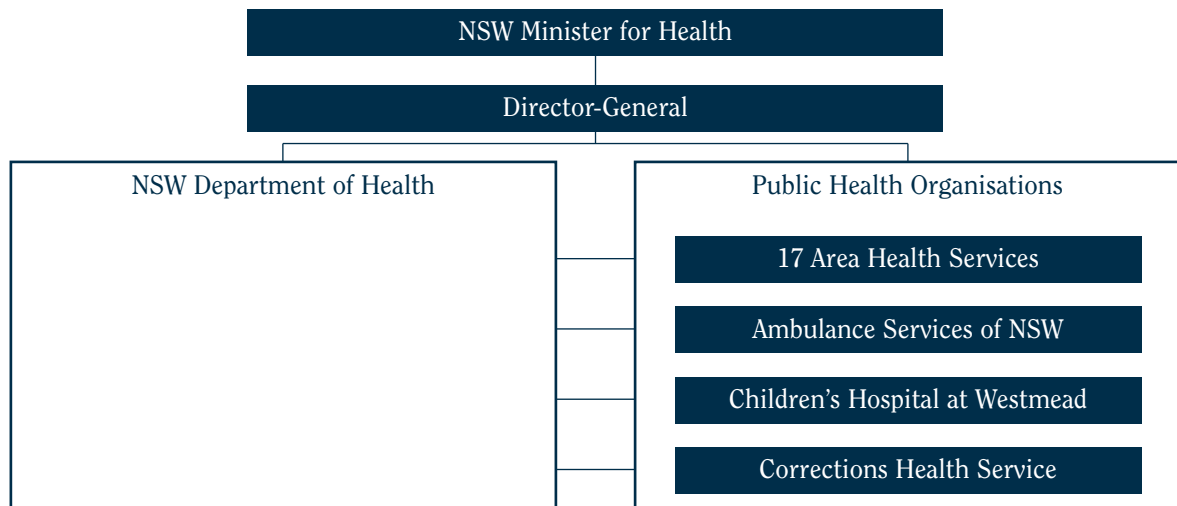
Attachment 4 Current structure of NSW Health system⁵²

The aim of NSW Health is to provide a sustainable health system for the people of NSW, that not only meets today’s health needs but also responds to the health needs of the future.

NSW Health is made up of:

- the Department of Health (the Department)
- 17 Area Health Services (AHSs), which provide hospital and community health services within a defined geographic area
- four statutory corporations—Corrections Health Service, Ambulance Service of NSW, the New Children’s Hospital at Westmead and the Institute of Clinical Excellence.

Figure A4.1 Structure of NSW health system



NSW Minister for Health

The Minister for Health is responsible for the provision of health services within NSW.

Under the *Health Administration Act, 1982*, the Minister formulates policies to promote, protect, maintain, develop and improve the health and wellbeing of the people of NSW, given the resources available to the State. The Minister is also responsible for Acts of Parliament relating to a range of health activities.

NSW Department of Health

The NSW Department of Health is responsible for providing the people of NSW with the best possible health care. It also supports the statutory role of the Minister for Health and monitors the performance of the NSW health system.

⁵² Source: NSW Department of Health, *Annual Report, 2001–2002*.

The Department makes recommendations to the Minister on funding public hospitals and community health services, develops policy, and manages public health issues and some aspects of long-term and community care. It is responsible for regulating private hospitals, nursing homes, and public and environmental health.

Public health organisations

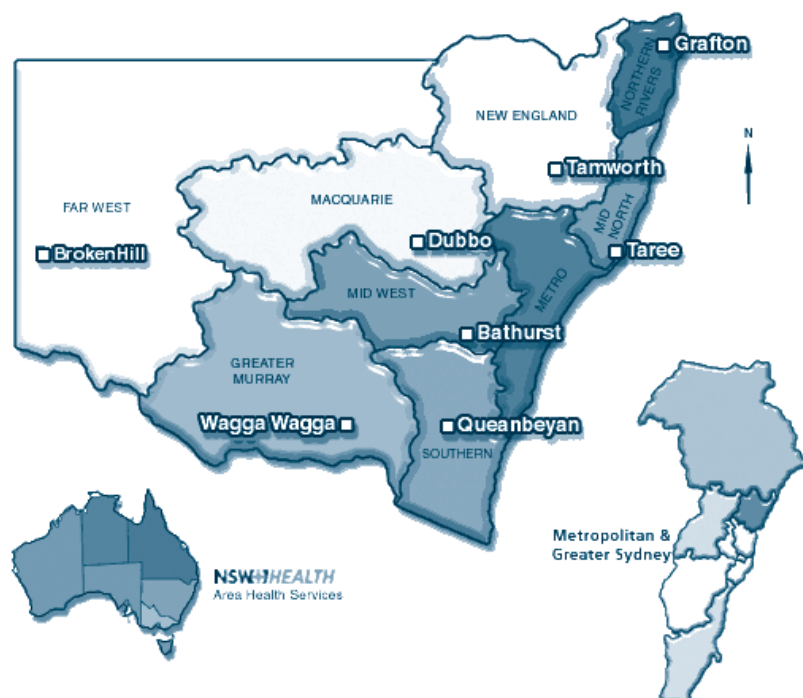
The *Health Services Act, 1997* describes Area Health Services and other legal entities within the NSW public health system as ‘public health organisations’. These organisations, which operate as separate entities within the NSW health system, include 17 Area Health Services, the Ambulance Service of NSW, the New Children’s Hospital at Westmead, Corrections Health Service and the Institute of Clinical Excellence.

Public health organisations play a major role in the planning, delivery and coordination of local health services. They are responsible for providing services such as public and community health, public hospitals, psychiatric hospitals, emergency transport, acute care, rehabilitation, counselling and many community support programs. These services are provided in a wide range of settings, from primary care posts in the remote outback to metropolitan tertiary health centres.

Affiliated health organisations are managed by religious or charitable groups. These services and facilities are recognised under the *Health Services Act, 1997*, and are also an important part of the NSW public health system.

Figure A4.2 Map of Area Health Services

Source: NSW Department of Health, *Annual Report, 2001–2002*.



Health Administration Corporation

The Director-General, as the Health Administration Corporation, has a pivotal workforce relations role in the NSW public health system. The Corporation is the legal employer of health system staff for the purpose of negotiating and determining wages and conditions of employment, and overseeing industrial matters.

Attachment 5 Trends in hospital admissions and activity levels

Analysis of hospital admission trends

IPART engaged consultants Hardes and Associates to analyse the impact of population growth, ageing and underlying admissions rates on total admissions by public and private hospitals for the period from 1996/97 to 2001/02. This attachment reports the results of the analysis by Hardes and Associates.

This analysis is important to the extent that the Department, AHSs and facilities should include demand driver analysis in their medium- to long-term planning. It is important to know what the underlying drivers of hospital services demand are as management has to know to what extent it can influence future demand levels.

This attachment also benchmarks relative hospital utilisation rates by AHSs and public and private hospitals. The purpose of this benchmarking is to analyse and compare the level of supply of public and private hospital services in rural and urban areas of NSW. This forms another important part of the medium- to long-term planning of the Department, AHSs and hospitals. This section identifies that the level of supply of private hospitals can have a considerable influence on the utilisation rates of public hospital services.

Lastly, the relative utilisation rates of public and private hospitals in NSW, Victoria and Queensland were benchmarked. The aim was to understand what the NSW pattern of admissions would look like if residents of NSW accessed hospitals at the same rate as Victorians and Queenslanders; and how many bed days would be used if residents of NSW had the same length of stay profile as Victorians and Queenslanders (while keeping the NSW casemix constant).

Detailed analysis of the trends indicates that:

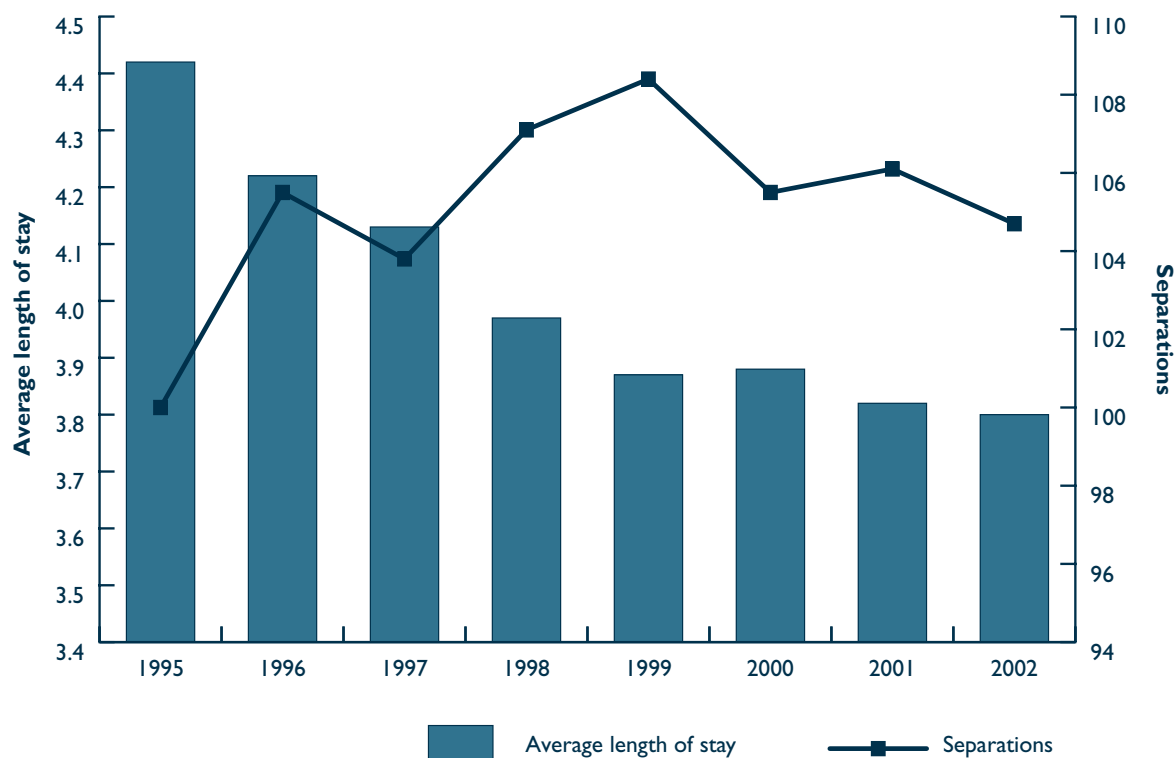
- The influence of non-demographic factors—such as new procedures—on total growth in separations in public hospitals is considerably less compared to the analysis undertaken for the 1998 IPART review with correspondingly higher influence of population growth and ageing.
- Rural areas are undersupplied in public and private hospital services compared to urban areas. Furthermore, there is a significant degree of variation in health status and outcomes between metropolitan and remote areas.
- The NSW public health system seems to concentrate on providing core overnight services. The Victorian casemix approach on the other hand encourages and rewards higher levels of activities. There is also a substantial difference in private hospital usage between NSW and Victoria. The comparatively low private hospital usage in NSW may be a significant factor in determining pressure on the NSW public health system.

Some of the conclusions the Department can draw from this analysis include that:

- there is a need for better planning and analysis of trends in hospital utilisation
- an undersupply of private hospitals in rural areas of NSW entails a relatively high utilisation rate of public hospitals compared to urban areas
- the comparison of NSW to Victoria and Queensland indicates that the Department should explore whether increases in activity levels linked to casemix funding could achieve better health outcomes in NSW.

Figure A5.1 illustrates the trend in decreasing average length of stay (ALOS) and growing separation numbers (equivalent to admissions to hospitals) from 1995 to 2002 in public hospitals in NSW. The trend in decreasing ALOS has continued over the last three years. There is however a slight decrease in overall separations since 1999 which might indicate that NSW Health has taken a proactive approach to managing surgical volumes in hospitals. It has to be noted that decreases in ALOS do not necessarily imply a decrease in cost as the overall intensity of care has been increasing. The data also does not include patients treated as outpatients. It therefore understates the overall activity level of the NSW public health system.

Figure A5.1 Acute public hospital separations and average length of stay for all service-related groups (SRGs)



Source: NSW Health.

Note: Separations include principal referral and other acute separations. Excludes the following SRGs: 20 Chemotherapy, 23 Renal Dialysis and 74 Unqualified Neonates.

Attachment 5 Trends in hospital admissions and activity levels

The Department has undertaken steps to reduce length of stay in hospitals by setting targets for day-of-surgery and day-only surgery admissions.

The Acute Care Implementation Coordination Group, established under GAP, set two targets for booked surgical admissions in 2000:

- 1 80 per cent of booked surgical patients requiring overnight hospitalisation following the procedure to be admitted on the day of surgery
- 2 60 per cent of surgical patients to be booked as day only.

These targets were incorporated in the performance agreements of AHSs with most achieving, and many exceeding, the targets within the first two years. In September 2002, the rate of day-of-surgery admissions was 84.7 per cent and day-only admissions was 58.3 per cent.⁵³

Benefits of the targets are improved patient care through reduced infection rates and blood clotting, better preparation of patients for their procedure and better utilisation of beds.

The targets demonstrate effective use of outcome indicators by the Department to drive improved delivery of services that enhance patient care. The effectiveness of this approach to achieve change is widely acknowledged.

As the following analysis indicates, there is more work to be done, especially in regards to conducting a thorough analysis of the demand drivers for hospital services. This kind of analysis should form an integral part of the medium- and long-term planning of the Department, AHSs and facilities.

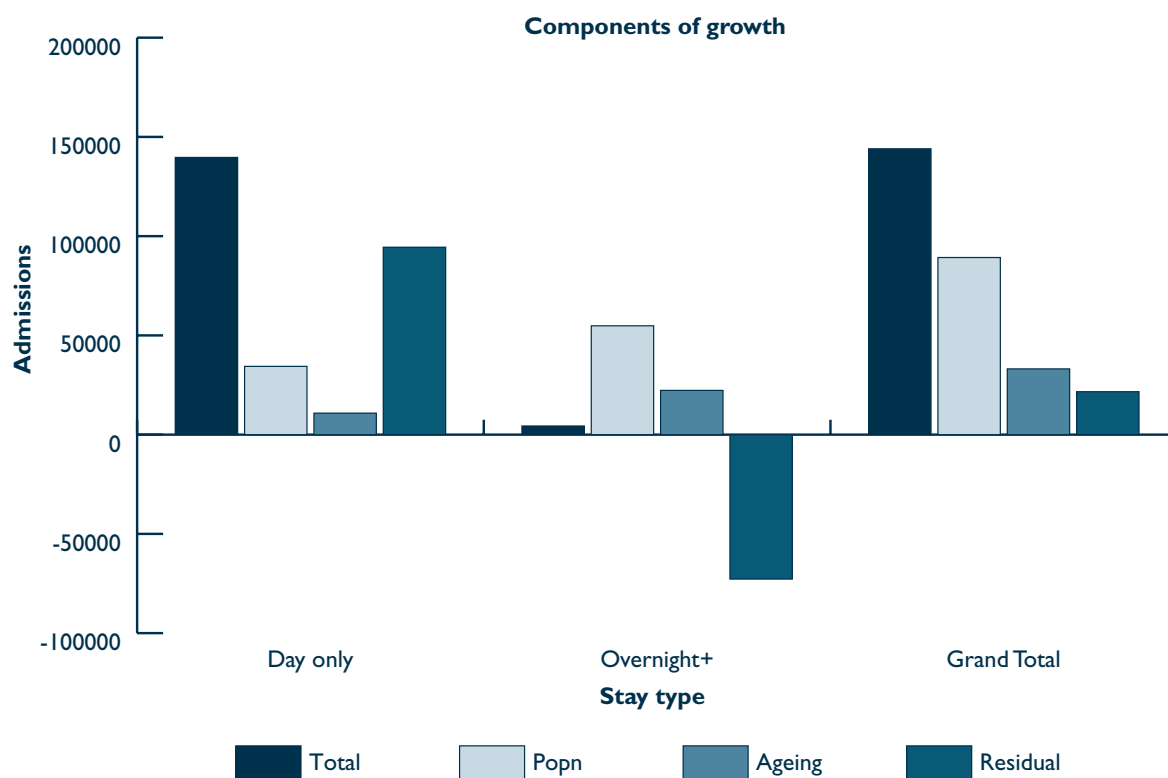
Analysis of trends in acute hospital admissions in NSW

Hardes and Associates found that overall there has been an increase of about 144,000 admissions or 9.7 per cent in public and private hospital admissions for the period from 1996/97 to 2001/02. However, overnight admissions in public hospitals have decreased by 3.4 per cent. Same-day admissions during the same period have increased by about 15 per cent. For NSW to control the growth in admissions, it is important to understand whether these increases are due to population growth, ageing or underlying admission rates. While the Department has some control over the latter, the former two cannot be contained easily. The increase in same-day procedures (36.5 per cent) has been even greater in the private sector as it has been targeting services with high potential to expand beyond population growth.

Figures A5.2, A5.3 and A5.4 show the absolute change of separations in total and by public and private hospital for the period from 1996/97 to 2000/01. Tables A5.1, A5.2 and A5.3 show the same numbers as percentage contributions to the absolute change in numbers of separations. The number of separations is broken down into their estimated contribution to absolute growth of separations over the period.

⁵³ External Review and Evaluation Reference Group, *Report on NSW Government Action Plan for Health 2000–2002*, 2002.

Figure A5.2 Estimated breakdown of absolute total change in all separations (public and private) in NSW 1996/97—2001/02



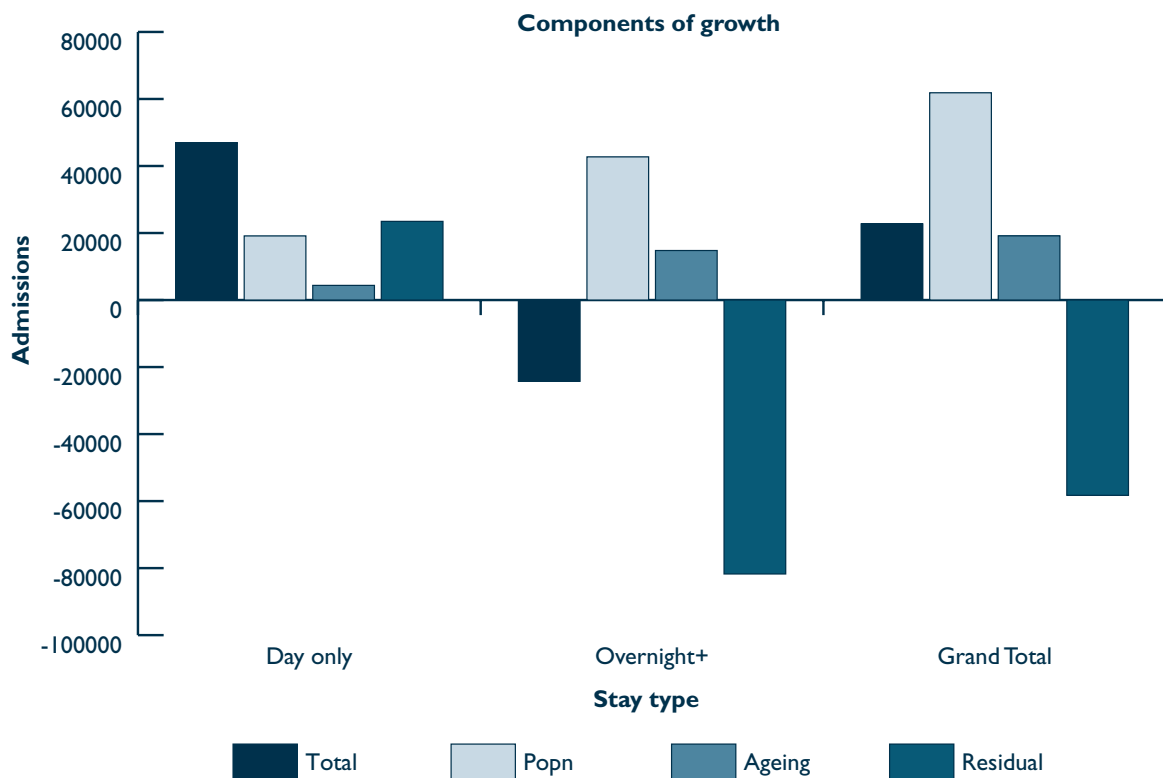
Source: HARDS & ASSOCIATES 2003. Excludes the following SRGs: 20 Chemotherapy, 23 Renal Dialysis and 74 Unqualified Neonates.

Table A5.1 Percentage contribution to absolute total change in all separations (public and private)

Stay type	Percentage contribution		
	Population growth	Ageing	Underlying admissions
Day only	25	8	68
Overnight+	1257	511	-1668
Total	62	23	15

Attachment 5 Trends in hospital admissions and activity levels

Figure A5.3 Estimated breakdown of absolute change in public separations in NSW 1996/97 – 2001/02

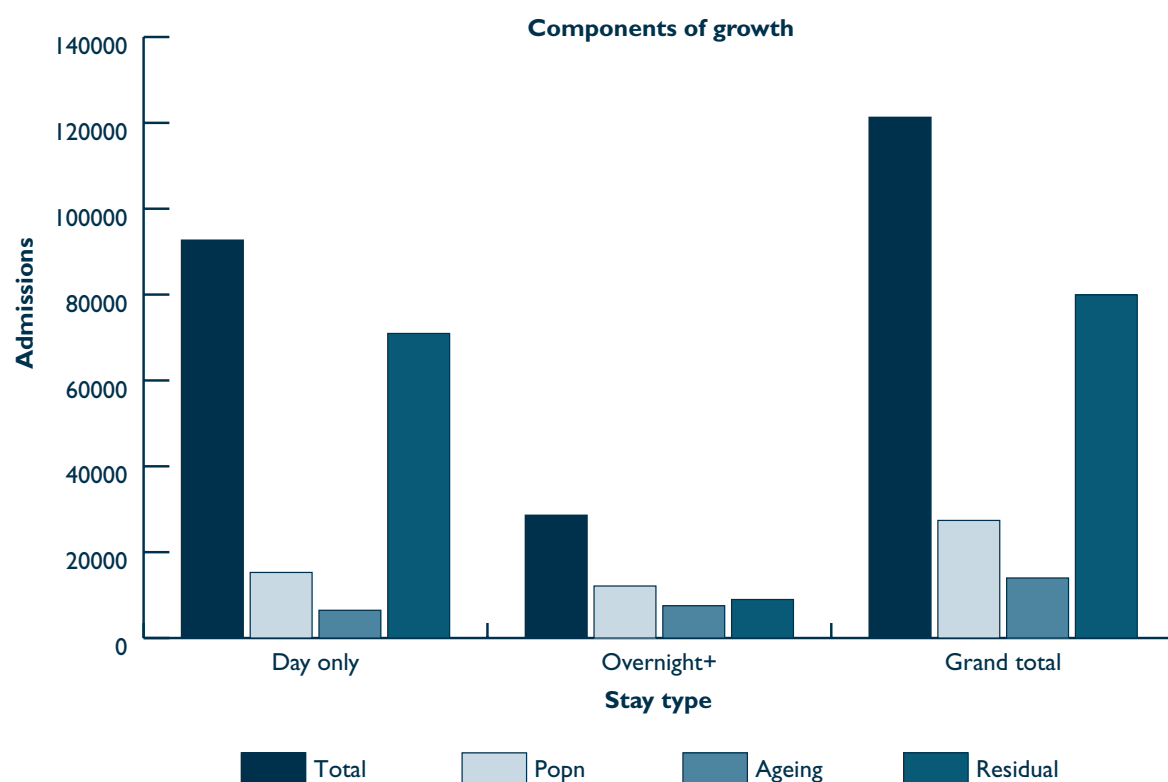


Source: Harde & Associates 2003. Excludes the following SRGs: 20 Chemotherapy, 23 Renal Dialysis and 74 Unqualified Neonates.

Table A5.2 Percentage contribution to absolute total change in all separations (public)

Stay type	Percentage contribution		
	Population growth	Ageing	Underlying admissions
Day only	41	9	50
Overnight+	-176	-61	337
Total	272	84	-256

Figure A5.4 Estimated breakdown of absolute change in private separations in NSW 1996/97 – 2001/02



Source: Hardes & Associates 2003. Excludes the following SRGs: 20 Chemotherapy, 23 Renal Dialysis and 74 Unqualified Neonates.

Table A5.3 Percentage contribution to absolute total change in all separations (private)

Stay type	Percentage contribution		
	Population growth	Ageing	Underlying admissions
Day only	16	7	77
Overnight+	42	26	31
Total	23	12	66

Figure A5.2 and Table A5.1 indicate that the increase in admissions in NSW hospitals in percentage terms (public and private) is due to population growth (62 per cent), ageing (23 per cent) and a residual of 15 per cent reflecting increases in underlying admission rates. The residual admission growth reflects changes in the underlying admission rate and picks up the effect of supply side factors such as new technologies, new procedures and increasing use of existing procedures.

For example, for day-only admissions (public and private) the major driver is underlying admission rates (ie the residual)—accounting for 68 per cent of growth (from Table A5.6). This figure is too high to be simply a function of work moving from overnight to day-only. Clearly, this is a challenge to the health system. NSW Health and clinicians have to ensure the underlying changes in treatment are properly supported by evidence-based medicine.

Attachment 5 Trends in hospital admissions and activity levels

It is interesting to note, however, that compared to the 1998 IPART review the influence of admission growth is considerably less, with correspondingly higher influence of population growth and ageing. This is consistent with the data in Table A5.2.

The figures in Table A5.4 represent the relative contribution to overall growth based upon population growth, ageing and a residual representing underlying admission rates. These figures cannot be directly compared to the figures in Tables A5.1, A5.2 and A5.3 as they are estimates of the expected utilisation rates when population growth is set at 6 per cent.

Table A5.4 Relative contribution—estimated breakdown of the expected growth in weighted separations in NSW—2001/02 based on population growth, ageing and admission rates.

All separations	Population	Ageing	Residual	Total
Total	6.0%	2.2%	1.5%	9.7%
Overnight +	6.0%	2.5%	-8.0%	0.5%
Day only	6.0%	1.9%	16.5%	24.5%
Public separations				
Total	6.0%	1.9%	-5.7%	2.2%
Overnight +	6.0%	2.1%	-11.5%	-3.4%
Day only	6.0%	1.4%	7.4%	14.8%
Private separations				
Total	6.0%	3.1%	17.6%	26.7%
Overnight +	6.0%	3.7%	4.5%	14.2%
Day only	6.0%	2.6%	28.0%	36.6%

Source: HARDS & ASSOCIATES 2003. Excludes the following SRGs: 20 Chemotherapy, 23 Renal Dialysis and 74 Unqualified Neonates.

In absolute terms, total admissions (public and private) grew by 9.7 per cent over the last five years. This figure can be disaggregated into a 6 per cent increase due to population growth, a 2.2 per cent increase due to ageing and a residual of 1.5 per cent which represents an increase in underlying admission rates.

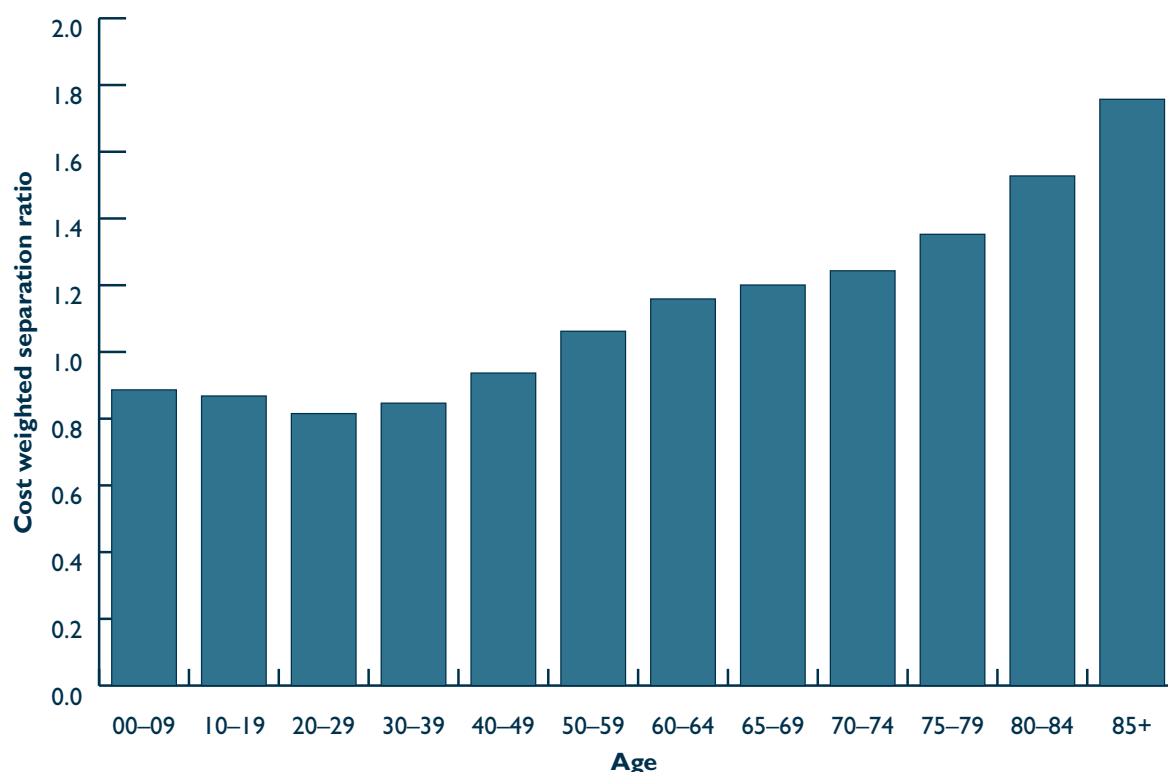
However, Table A5.4 indicates that the relative influence of population growth, ageing and change in underlying admission rates varies enormously according to hospital type and stay type.

Figure A5.2 also indicates that there has been virtually no growth in overnight admissions (public and private)—a remarkable fact given that population growth should have increased admissions by 6 per cent and ageing a further 2.5 per cent. The total effect of growth has been almost offset by an 8 per cent decrease in admission rates. Public hospitals have experienced a high decrease in underlying admission rates of 11.5 per cent leading to a total decline of 3.4 per cent in overnight admissions. Part of the decrease in overnight admissions would be due to change in clinical practice, including the shift to day-only services and to non-inpatient

services. It is important to note that unlike day-only admissions, many of the overnight admissions (especially those associated with urgent/emergency admissions) are undertaken mainly in the public sector. These services are relatively inelastic and the public health system has done well to control the growth in overnight admissions.

It also has to be noted that there is a substantial difference between the cost weights for different age groups of the population, which has implications for the ageing component of growth. Figure A5.5 displays cost-weighted separation ratios for different age groups in 2002.

Figure A5.5 Cost-weighted separation ratio by age group in 2002



Source: NSW Health.

Note: Separations include principal referral and other acute separations. Excludes the following SRGs: 20 Chemotherapy, 23 Renal Dialysis and 74 Unqualified Neonates.

Figure A5.5 clearly shows the rise in health costs for age groups above 70–74. The cost-weighted separation ratio for the 85+ age group is almost double that of the 20–39 age groups. Thus the pressures on the health system from the ‘baby boomers’ will come when that generation exceeds 75 years of age, in 2020 and beyond.

Another area to be investigated is the cost of changes in technologies. Public Health Professor Stephen Leeder from the University of Sydney says that the *Intergenerational Report* indicates that technology is actually accounting for two-thirds of the price pressure in health care, and ageing one-third, which he says is quite different from the impression the Federal Government has given.⁵⁴

⁵⁴ Armstrong F. What next for health funding? (Feature.) *Australian Nursing Journal*, July 2002; 10(1): 25–27.

Attachment 5 Trends in hospital admissions and activity levels

Unlike the public sector where most concern is with equity of access and the management of demand, the private sector is actively seeking to provide services with high expansion potential, ie services where there is significant growth over and above population growth and ageing. These services can generally be characterised as highly elastic and extremely responsive to supply. Table A5.4 indicates that over the last five years there has been a 26.7 per cent increase in total admissions to private hospitals. Most of this (17.6 per cent) is attributed to increases in the underlying admission rates. For day-only admissions, the contribution to the absolute increase of 36.6 per cent is mainly due to a 28 per cent increase in admission rates. This indicates that the private sector is successfully targeting services with high potential to expand above and beyond population growth. This is in clear contrast to the public sector—reinforcing the need to use sector-specific analyses rather than overall figures that comprise components with very different casemixes and imperatives.

Table A5.4 shows that overall growth in admissions in the public sector was only 2.2 per cent. This did not keep up with the impact of population growth and ageing. Admission rates fell by 5.7 per cent in absolute terms. Overall growth in day-only admissions was 14.8 per cent in absolute terms, substantially less than in the private sector. This also reflects that some in-patient procedures are becoming outpatient procedures in the private sector.

One of the implications of this analysis is that more people are being treated in public hospitals, but fewer as overnight patients—despite population growth and ageing. NSW Health has been successful in managing demand for acute admissions. The intensity of care for patients admitted overnight is increasing while average length of stay is decreasing.

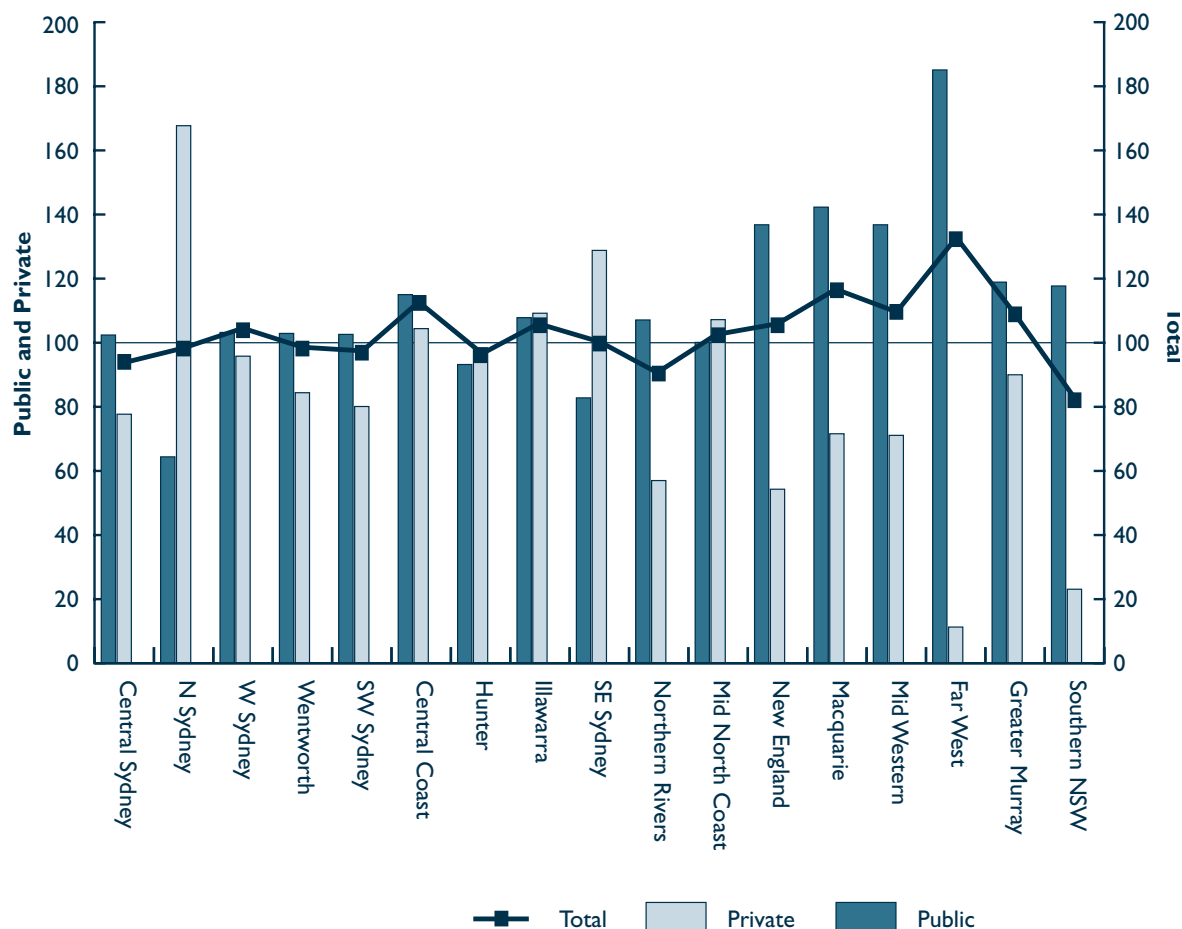
Benchmarking comparison within Areas of NSW

The Tribunal analysed the relative utilisation rates of AHSs in NSW to understand:

- how effective the RDF-based funding model has been in achieving an equitable distribution of health services across the State
- the relative utilisation rates of public and private hospitals across the State.

Figure A5.6 indicates that the supply of public and private hospital services in rural Areas of NSW is well below that of metropolitan Areas. The figure shows relative utilisation rates by AHS and public and private sector. The average utilisation rate across the State is indexed at 100. The relative utilisation rate is representing the use of public hospital services in one AHS relative to the state average. NSW residents treated interstate are not included. As a consequence, relative utilisation rates for Areas such as Northern Rivers and Southern NSW are lower than actual utilisation when interstate treatment is included.

Figure A5.6 Relative utilisation rates for NSW AHSs by public and private hospitals and same-day and overnight admissions



Source: Harde & Associates 2003. Excludes the following SRGs: 20 Chemotherapy, 23 Renal Dialysis and 74 Unqualified Neonates. Each series is converted to an index where 100 equates to average utilisation.

A first observation is that there is a fairly high relative public hospital utilisation rate in the more remote areas of NSW. Relative utilisation of the non-metropolitan Area Health Services is generally higher than metropolitan rates. This can partly be explained by the need to practise medicine more conservatively in rural areas, eg patients are generally discharged later in rural than in urban areas. Another important factor that impacts on non-urban relative utilisation rates is the undersupply of private hospitals in rural areas. This is confirmed by the very low relative utilisation rates of private hospitals in rural areas. The low supply of private hospitals in rural areas is accompanied by increased supply of public hospitals. This variation in public/private mix will also be reflected in patterns of activities. Rural areas have typically higher rates of medical admissions and lower rates of surgical/procedural admissions.

Attachment 5 Trends in hospital admissions and activity levels

Figure A5.7 Health indicators—urban/rural, rates per 100,000 persons

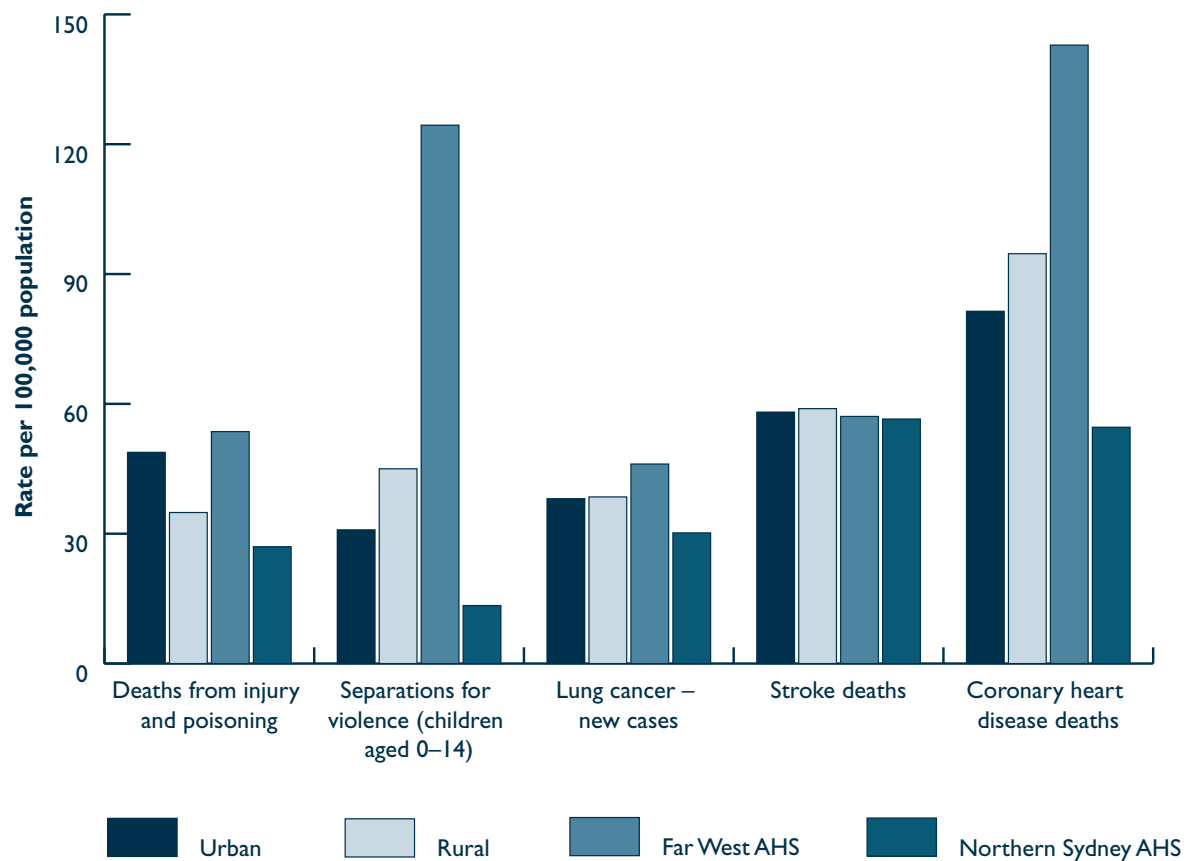


Figure A5.7 indicates that there is still a very high degree of variation in the health status and outcomes between the urban and rural population of NSW. Except for strokes, rural areas seem to be undersupplied in clinical services. Furthermore, external factors, such as lifestyle, impact considerably on the amount of health resources needed in rural areas. This is very clearly indicated by the much higher rate of new lung cancer cases in the Far West AHS as compared to Northern Sydney AHS.

Much of the variation experienced in rural areas is due to an uneven distribution of clinical specialists. This also has an effect on the supply of private facilities in non-metropolitan areas. In these circumstances it is not possible to reduce all of the geographic variation by using the RDF alone. A more equal distribution of the workforce could support NSW Health's effort to reduce geographical inequalities in health resource distribution.

Benchmarking comparisons of NSW with Victoria and Queensland

Benchmarking can be used to understand whether there are differences in health service provision for NSW. Ideally one would like to use health outcomes for the community as the basis for comparison. However this is difficult and this section compares outputs such as relative utilisation and average length of stay for NSW, Victoria and Queensland. This allows us to gain some insight into the relative performance of the NSW health system as compared to Victoria and Queensland. While it is then possible to compare this to inputs, the absence of comparative health outcomes and quality-adjusted outputs is an important limitation.

Relative utilisation rates

Tables A5.5 and A5.6 set out the relative utilisation rates of public and private hospitals in NSW, Victoria and Queensland. The relative utilisation rate represents expected separations in NSW if it had Victorian/Queensland admission rates. A figure lower than 1 indicates the rate of admissions in NSW is lower than in Victoria/Queensland for the same population mix.

Table A5.5 Relative utilisation—ratio of sex/age-adjusted admissions—NSW/VIC

Stay type	Public	Private	Total
Day only	0.77	0.84	0.80
Overnight+	1.09	0.80	1.00
Total	0.96	0.82	0.90

Source: Hards & Associates 2003.

Note: Excludes the following SRGs: 20 Chemotherapy, 23 Renal Dialysis.

Table A5.6 Relative utilisation—ratio of sex/age-adjusted admissions—NSW/QLD

Stay type	Public	Private	Total
Day only	0.95	0.67	0.79
Overnight+	1.05	0.59	0.87
Total	1.01	0.63	0.84

Source: Hards & Associates 2003.

Note: Excludes the following SRGs: 20 Chemotherapy, 23 Renal Dialysis.

The relative utilisation rates give us some interesting insights into what the NSW health system would look like if it were operated like the Victorian/Queensland health system. Under this scenario, overall admission rates in NSW are only 90 per cent of the rates in Victoria and 84 per cent of the rates in Queensland. At 96 per cent, total public admissions in NSW are slightly lower than in Victoria. NSW and Queensland total public admission rates are very similar at 101 per cent.

It has to be noted that private hospital rates in NSW are considerably lower than in Victoria for both day-only and overnight admissions (total of 82 per cent), and even lower when comparing NSW to Queensland (total of 63 per cent). This indicates that NSW has a much lower supply of private hospital services than Victoria and Queensland. NSW Health should investigate why this is the case as it obviously puts pressure on the public system.

Lastly, total public relative utilisation rates look very similar for NSW, Victoria and Queensland. However, the breakdown into day-only and overnight admissions shows that NSW performs considerably fewer day-only and more overnight services than both Victoria and Queensland. NSW performs 77 per cent of the day-only admissions performed in Victoria and 95 per cent of those performed in Queensland.

Several points are noted. Lower private hospital relative utilisation rates in NSW may reflect a more aggressive private sector in Victoria. However, NSW has more rural areas with fewer private hospitals and this could explain at least in part the lower rates for private hospital utilisation in NSW.

Attachment 5 Trends in hospital admissions and activity levels

In addition, an important priority of the NSW health system is to achieve equity, not simply to increase activity levels. Many of the differences in relative utilisation rates may be explained by the differences between pursuing a population-based funding model designed to achieve equity of access and utilisation in NSW and the Victorian casemix approach that encourages and rewards higher levels in activity.

The other important divergence between NSW and Victoria/Queensland is the substantial difference in private hospital usage. While the private sector is not a perfect substitute for the public sector, the comparatively low private hospital supply and utilisation in NSW may be a significant factor in determining pressure on public hospitals. The NSW public health system seems to have concentrated on providing the core overnight services in public hospitals and has not sought to provide the same volume of *discretionary* services as Victoria or Queensland. Due to low supply and utilisation of private hospitals in NSW, these services have not totally been picked up in the private sector.

Average length of stay

The following analysis shows how many bed days would be used if residents of NSW had the same length-of-stay profile as residents of Victoria and Queensland (while keeping the NSW casemix constant). Table A5.7 sets out the NSW casemix-adjusted day-only admissions and average length of stay figures.

Table A5.7 Comparison of average length of stay NSW/Vic and Qld in public hospitals

	Day only		Overnight	
	Admissions %	Adjusted to NSW casemix	ALOS	Adjusted to NSW casemix
NSW	33.4	–	5.10	–
Victoria	41.9	37.3	4.97	5.03
Qld	36.7	32.9	5.21	4.82

Source: Harges & Associates 2003. Excludes the following SRGs: 20 Chemotherapy, 23 Renal Dialysis.

Overall, NSW public hospitals treat 33.4 per cent of admissions on a day-only basis, compared to 41.9 per cent in Victoria. However, when adjusted to the NSW casemix, the Victorian figure falls to 37.3 per cent.

Compared to Queensland, these figures are slightly lower, with day-only admissions at 36.7 per cent and when adjusted to the NSW casemix, the Queensland admission rates are slightly lower than in NSW at 32.9 per cent.

Average length of stay for overnight patients in NSW public hospitals is 5.1 days compared to 4.97 days in Victoria. When adjusted to the NSW casemix, the average Victorian stay increases to 5.03 days.

Average length of stay in Queensland is higher than in NSW at 5.21 days. When adjusted to the NSW casemix however, this figure falls to 4.82 days, which is lower than both NSW and Victoria.

Using the Victorian figures, the combined effect of the higher day-only admission rate and the marginally lower length of stay for overnight admissions is that NSW public hospitals would utilise around 230,000 fewer bed days for their current patient mix and volumes if they adopted Victorian profiles. From a base of about four million bed days this represents a possible saving of 5.6 per cent. It is however questionable if this saving would be realised. Fewer bed days may imply that there would be an increase in the number of separations and therefore no real cost saving would be achieved.

However, it is important to bear in mind that the Victorian admission rates to public hospitals are about 4 per cent higher than in NSW and substantially higher for day-only admissions. If we assume that the underlying health requirements are similar it may be concluded that the additional admissions to Victorian hospitals would be generally for slightly less severe cases within any given Australian National Diagnosis-Related Group (ANDRG). This would contribute to a lowering of length of stay in Victoria relative to NSW. This variation is often explainable in terms of public/private hospital mix and distribution of clinical support.

The differences between NSW and Victoria seem less related to efficiency of service delivery than to historic differences in approaches to managing public hospitals—and to public health goals. The same is true for Queensland. As mentioned earlier many of the differences in relative utilisation rates may be explained by the differences between pursuing a population-based funding model designed to achieve equity of access and utilisation in NSW and the Victorian/Queensland casemix approach that encourages and rewards higher levels of activity.

Especially Victoria seems to be doing more with less compared to NSW. However, it remains uncertain whether:

- this involves better health outcomes
- there are NSW specific factors such as costs which impact on the analysis.

The analysis also does not take explicit account of community and population health programs.

While there are these uncertainties, the comparisons do set a challenge for NSW Health to:

- understand the cause of the differences
- look for opportunities to achieve better health outcomes through higher activity levels.