



EBA outcomes and public hospital funding – is the system working effectively in Victoria?

11 June 2008

Scoping Study by Access Economics Pty Limited for
Victorian Healthcare Association

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GLOSSARY

Efficiency	Achieving improved value for a given amount of health spending. This can comprise finding the best balance between different kinds of care, the inputs going into that care and their cost and the technical efficiency with which they are used.
Effectiveness	Initiatives designed to improve health system performance in ways that may be cost-increasing, cost-neutral, or cost-decreasing.
Productivity	The level of outputs achieved using a defined level of inputs while maintaining constant quality. Defining productivity quantitatively in a non-market environment is particularly difficult as variations in quality are not readily identifiable without the benefit of market pricing mechanisms and competition.
Productivity frontier	The highest level of productivity in the industry. This refers to the highest units of output for a given unit of input (adjusted for constant quality).
Funding gap	The difference between the funded and unfunded component of the nurses EBA outcome. The difference can easily be quantified for each organisation and amounts to one part of the productivity dividend.
Productivity dividend	The total dollar amount of all savings explicitly implied by the gap between funded and unfunded operations for each institution.
Central agencies	For this paper the use of central agencies refers to the key policy making and process monitoring departments in the government – both State and Federal.

EXECUTIVE SUMMARY

Health care spending has grown significantly as a share of GDP across the globe. Australian governments are not alone in trying to rein in health care spending by focusing on achieving significant productivity gains.

The welfare of the community may well be improved by increased government spending on health care, particularly if demand for services tends to rise more rapidly than income, and if the cost of technological change is more than compensated by improvements in the quality of care.

However, market failures associated with health care suggest a risk of excessive spending, with the rider that equivalent health outcomes could possibly be attainable at lower cost.¹

Health care spending continues to grow strongly in Victoria - and Australia for that matter – reflecting increased service provision and significant growth in cost drivers. This report looks into the funding framework used within the Victorian public hospital system and questions its sustainability and efficiency.

The Victorian Healthcare Association (VHA) commissioned Access Economics to prepare a scoping study in relation to public hospital funding and enterprise bargaining agreement (EBA) outcomes in Victoria. Some of the concerns which had been expressed by VHA and its members include harsh and arbitrary productivity goals and a lack of transparency in the funding process.

Achieving productivity gains has certainly been a cornerstone of public hospital financing arrangements in Victoria over recent years.

Is the current system sustainable? The answer is yes, but with a caveat. The current framework is sustainable to the extent that the State government continues to bail out hospitals that are forced into financial difficulty – often reflecting circumstances out of their control and an inability to achieve productivity targets or to contain costs.

Why then are hospitals in some cases continually (throughout successive years) in financial difficulty? The Attorney-General has concerns about the policy frameworks – implying that in practice the incentive parameters operating within the Victorian healthcare system are sub-optimal.

The June 2007 Victorian Auditor General's report on *Public Hospital Financial Performance and Sustainability* highlighted a range of significant issues in relation to ongoing funding within the Victorian public hospital system. Among other things, this report concluded there were significant financial challenges confronting the 91 Victorian public hospitals, including:

- ❑ 35 hospitals had less than 30 days of operating cash outflows as cash holdings at 30 June 2006;

¹ Elizabeth Docteur and Howard Oxley, OECD, HEA (2003)9, *Health-Care Systems: Lessons from the Reform Experience*, 2003. pp 7

- ❑ over one third of hospitals had negative working capital positions or had operating deficits; and
- ❑ 23 public hospitals did not technically comply with the “going concern” test in the Australian accounting standards, including 9 major metropolitan hospitals, which account for *over 60 per cent of the total turnover of all Victorian public hospitals*.

The Auditor General's report presented a picture of significant financial distress among Victoria's public hospitals. Is it a failure of hospital administration, or is the system asking too much of hospital management?

The public hospital system in Victoria and more broadly in Australia provides a high standard of health care relative to other OECD countries; however, problems around the administrative and financial systems that support them need to be addressed with urgency.²

The underlying cost drivers which are affecting the hospital's financial bottom line remain in place. This adds upward pressure on funding requirements which exceed the additional funding provided through existing frameworks and those that the funding parties appear willing to deliver.

The casualty in these instances can be the lower productivity and efficiency caused by the need to divert resources to stave off the (constructed) impending financial crisis. These are the ongoing financial issues faced by approximately 1/3 of the hospitals and 60% of the separations within the Victorian healthcare system.

Given the scale of the financial problem faced by Victoria's public hospitals, this may suggest that the funding framework is no longer delivering the best outcome for the State's ongoing health care needs.

Essentially this is an adversarial funding system set up to capture (and create) high levels of ongoing productivity. The issue raised in this scoping study is whether – given the future issues likely to affect the health care environment in Victoria – the current framework is in fact sustainable in the long term?

This scoping study suggests that a more co-operative and informed approach may be able to better target and achieve productivity gains. Further research is required to identify and implement the scope for industry wide productivity reform to the public hospital sector, including freeing up access to capital.

It is strategically important to review the current funding methodology because the health care environment is about to enter a period of much stronger demographic pressure than has been the case historically. The Federal government's 2007 Intergenerational report indicates that Australian Government spending on health is projected to increase as a proportion of GDP from 3.8% in 2006-07 to 7.3% in 2046-47. Given that around 1/3 of Victorian hospitals are technically not a going concern at present - involving some 60% of all Victorian public

² TFG International, ACHR, *Report into the operation and future of the Australian Healthcare Agreements and the funding of public hospitals*, 2008.

hospital separations - this may well imply that the current funding framework is not well suited to deal with the added pressure of demographic change.

Conclusions

Following initial investigations Access Economics has concluded that:

- ❑ The current funding mechanisms lack long-term sustainability and may lead to less than optimal efficiency in resource usage as well as negatively affecting certainty for Government expenditure needs.
- ❑ The current adversarial funding framework is no longer ideally suited to achieving long-term productivity improvements in the Victorian health care system – to use a turn of phrase ‘the low hanging fruit has already been picked’.
- ❑ In our view, better outcomes would be achieved in today’s environment by implementing a cooperative productivity achievement framework based on a taskforce approach to research and data analysis, as well as through capital investment which is targeted to assist in achieving productivity gains.
- ❑ There appears a lack of recognition of the cost drivers affecting budgets across the health care system or for individual hospitals.
- ❑ There is a lack of transparency in the derivation of key features within the funding framework, particularly in relation to productivity targets.
- ❑ In addition there seems to be a lack of understanding about how EBA outcomes will impact hospital bottom lines. For example the latest outcome for nurses has a headline wage figure of 3.25% (partially funded by the government, partially by a productivity dividend) but an impact on some hospitals of more than double this rate.
- ❑ Significant amounts of resources are devoted to resolving financial distress, unsuccessfully, as the distress is a feature of the framework in an adversarial system attempting to extract productivity (as opposed to helping generate it).
- ❑ Given the scale of demographic change that is likely to affect the health care system in the next decade, funding frameworks will need to account for demographic changes to health care catchments.

Further research

This scoping study indicates that the issues identified are sufficient to warrant a more detailed analysis of the implications of both the current EBA process and the existing public hospital funding methodology.

The more detailed analysis could be centred around an historical financial analysis of five institutions to review how they have been affected by and responded to the financial targets presented. Key areas of focus for further work could be:

- ❑ A detailed review of the current funding model for Victorian public hospitals including documenting, if possible, how key parameters are set.
- ❑ Compare the funding model with that used in other jurisdictions, focusing on incentive structures.
- ❑ Undertake financial case studies on at least five facilities tracking their broad finances and delivery of services over time.

- ❑ Ascertain how these facilities have achieved productivity gains over time, with a focus on constraints to productivity gains.
- ❑ Discuss what can be done to encourage future productivity gains including through research and benchmarking.
- ❑ Develop policy recommendations for potential changes to the funding mechanism with a focus on incentive structures for optimal hospital performance over the long term.

Access Economics

11 June 2008

1. INTRODUCTION

The Victorian Healthcare Association (VHA) commissioned Access Economics to prepare a scoping study in relation to public hospital funding and enterprise bargaining agreement (EBA) outcomes in Victoria. Specifically, the study is to focus on how productivity gains are determined and their impact on hospital funding and the EBA process.

Some of the concerns which had been expressed by VHA and its members on these issues include:

- ❑ productivity goals appear to be set in an arbitrary fashion;
- ❑ the funding process lacks transparency, and it appears as though productivity goals are set and implemented at two separate stages in the process;
- ❑ there appears to be a one size fits all approach to productivity goals across all hospitals and facilities, regardless of circumstance; and
- ❑ because most costs are set centrally and many processes are regulated there may be limited flexibility for hospitals to achieve the productivity gains required to balance hospital budgets each financial year.

This scoping study presents a review both of the current funding arrangements and estimates of productivity growth in the health sector which have been developed. It also investigates the above concerns expressed by VHA and lists a series of issues in relation to the current funding system which are worthy of broader investigation.

This report focuses on presenting ideas to support the argument for more effective funding arrangements that can be developed and implemented by properly constituted governing bodies, supported by experts in relevant areas.

As an overall rider to the discussion of health care funding, Access Economics notes:

Effective reform can only be achieved by ensuring that a set of incentives exists that encourages individuals and institutions, acting in their own self interest, to make the changes that are required to optimise the efficiency and effectiveness of the Victorian public hospital system..³

Changes to those incentive structures may include greater application of market-like mechanisms or other measures to encourage innovative practices (as well as incentives or an ability to share innovative practices and best practice outcomes through the sector).

Access Economics' initial investigations suggest that the solution requires a review of the financial frameworks governing the operation of public hospitals in Victoria. Improving efficiency of provision can assist to achieve government objectives to control system-wide costs. This has particular importance given that governments in Australia pay for approximately 70% of hospital funding.

Feedback from VHA members suggests that:

³ Competition Committee, OECD, COMP (2006)20, *Competition in the provision of hospital services*, 2006.

“The point of greatest return from a financial perspective is when a hospital treats no more than 98% of the throughput target.”

If that is the case then the incentive structure for hospitals is not compatible with broader social goals.

With increasing demographic pressures looking forward, health care funding models will also need to take better account of population movements from year to year to ensure that resources in the health care system are able to respond to both a changing age profile and population movement.

Recent analysis by the OECD indicates that:

“...there is great potential for the use of competitive and market-oriented incentive mechanisms to increase the efficiency of the production of hospital services. In a number of instances, substantial savings or quality improvements have followed from such mechanisms.”⁴

The scoping study also examines the information requirements to be able to analyse hospital funding, outputs and EBAs over time in a series of detailed case studies. These case studies would form part of the broader study to which this scoping study refers.

The scoping study concludes by setting out potential terms of reference for a further broader study - which may include the collection and analysis of empirical data.

⁴ Competition Committee, OECD, COMP (2006)20, *Competition in the provision of hospital services*, 2006. pp 25

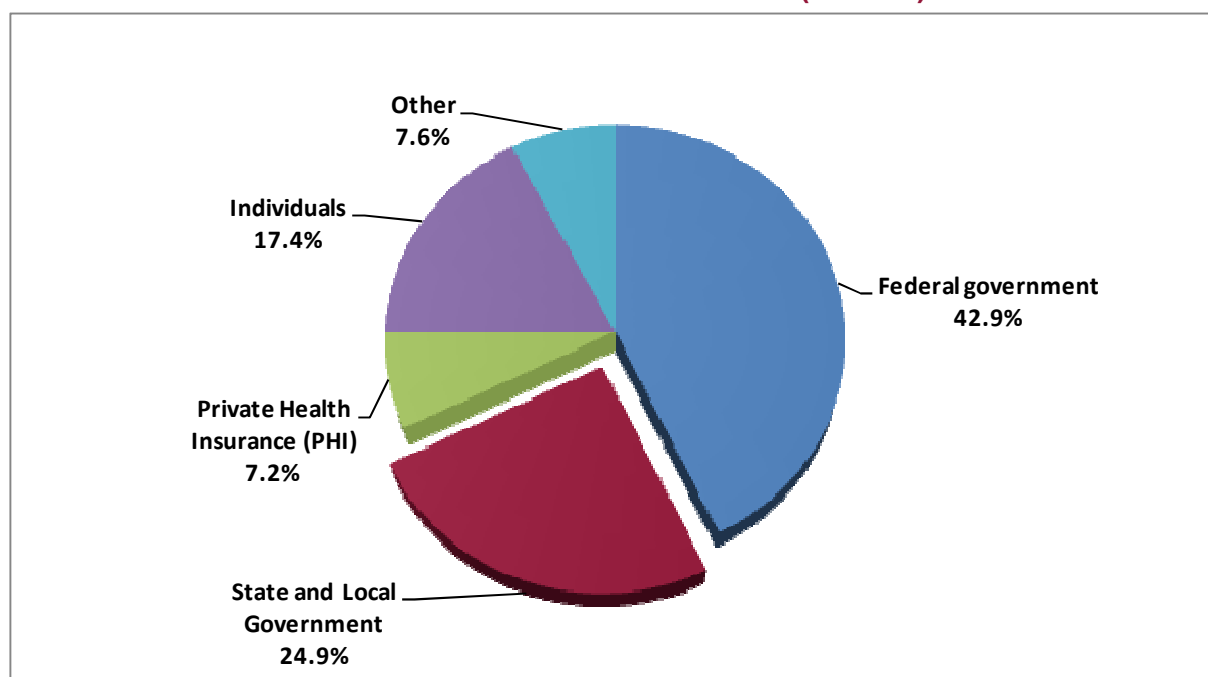
2. FINANCING ARRANGEMENTS

2.1 HEALTH FUNDING OVERVIEW – LONG-RUN IMPLICATIONS

Health care services in Australia are funded and provided by both the public and private sectors. Health is a major spending priority for all levels of government.

- Two thirds of funding on health is provided by governments and the remainder by individuals, private health insurance, and other non-government sources.
 - The Federal government provides over 40% of the total health spending for Australia.
 - The States and Territories also fund health services and have responsibility for public hospitals – providing around 25% of total health funding.

CHART 1: HEALTH FUNDING BY SOURCE (2005-06)



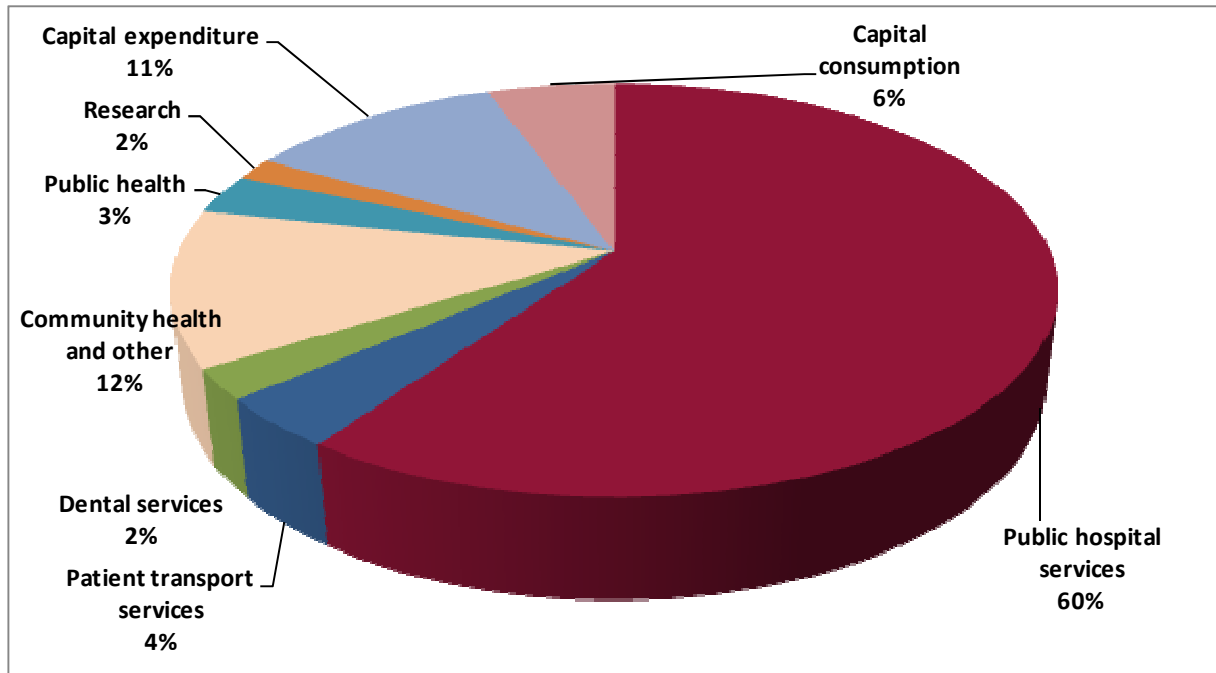
Source: AIHW health expenditure database, www.aihw.gov.au/expenditure/datacubes/index.cfm.

Focusing on the public hospital sector, most funding for public hospitals came from governments in 2005–06 - 41% from the Australian government and 51% from the States and Territories.

Between 1995–96 and 2005–06, the Australian government share of public hospital funding *decreased* by 4 percentage points from 45% to 41%. Over this same period State and Territory government funding *increased* by 5 percentage points from 46% to 51%.

Chart 2 indicates that of total State health care expenditure in Victoria (\$4.9 billion) 60% is spent directly on public hospital services. By necessity, such operating spending will account for the majority of Victorian health care spending, though it is in some of the smaller spending items (such as the 11% of funds on capital expenditure and the 2% of funds on research) where there may be the most scope to deliver improvements in efficiency over time.

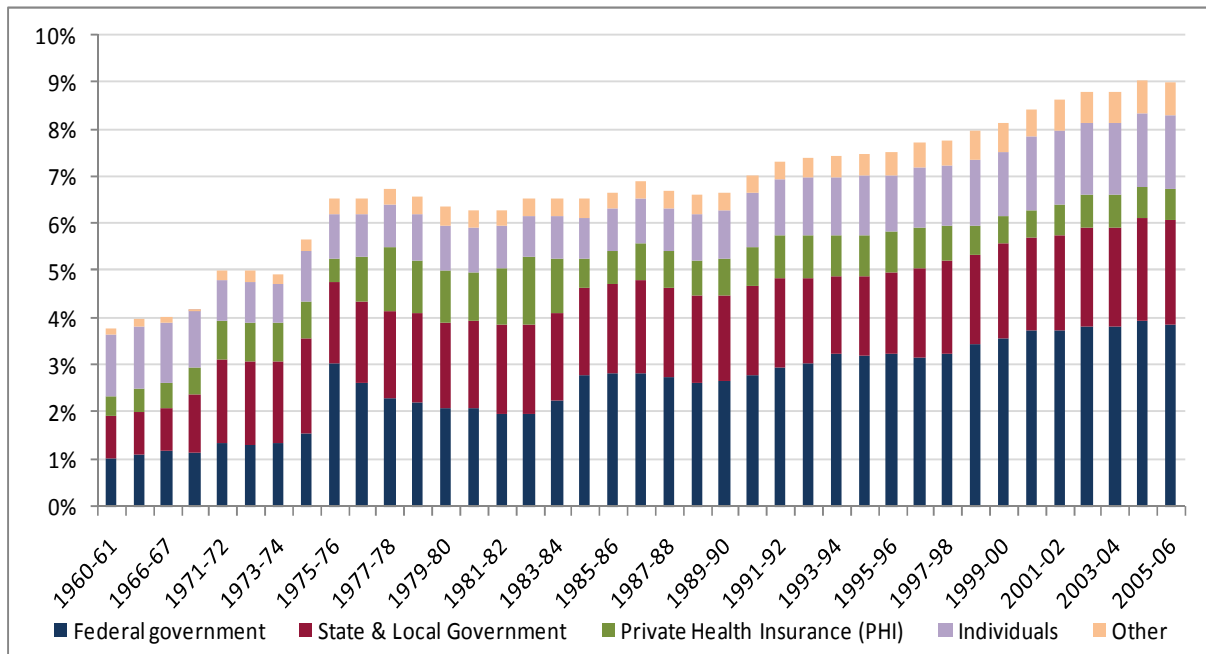
CHART 2: VICTORIAN HEALTH CARE EXPENDITURE 2005-06



Source: AIHW, Health expenditure Australia 2005-06, <http://www.aihw.gov.au/publications/index.cfm/title/10529/>

Chart 3 highlights the escalation in health funding as a share of our economy over time.

CHART 3: HEALTH FUNDING BY SOURCE AS A PROPORTION OF GDP



Source: AIHW health expenditure database, www.aihw.gov.au/expenditure/datacubes/index.cfm.

The reasons for the overall increase in health funding have changed over time. Early on it was mostly driven by increased access and lifting patient expectations. New health technologies have also played a hand, increasing possibilities and again, feeding patient expectations. In recent years, the ageing of the population has made a larger contribution.

- ❑ Health expenditure has grown over time because health goods and services are highly income-elastic. That is, as income grows, individuals want to consume proportionately more of their total 'consumption basket' on health goods and services. Indeed, health has one of the highest income-elasticities of all types of consumption – unsurprisingly, humans have a voracious appetite for a healthy life and, so far at least, health technologies have delivered in enabling the supply of greater longevity and wellbeing.
- ❑ Population ageing has also played a role and is expected to be an important driver in the coming decades.

In the long run, expenses related to health are likely to be a major contributor to the growth in government spending over coming decades - as highlighted in the Federal government's *Intergenerational Reports (IGRs)*. The 2007 IGR noted that Australian government spending on health is projected to increase as a proportion of GDP from 3.8% in 2006-07 to 7.3% in 2046-47.

- ❑ While population ageing will have a role, non-demographic growth (such as the listing of new medications on the Pharmaceutical Benefits Scheme and greater use of diagnostic procedures), is likely to be the key driver of health spending pressures – contributing *three-quarters* of the projected increase in health spending over the next 40 years. These new medications and new medical technologies are likely to be expensive.
- ❑ The 2007 IGR makes the further point that this non-demographic growth is driven by choice.

“Technological change, including the development of new drugs, accounts for a significant proportion of non-demographic growth in health spending per person. As the Australian Government exercises significant controls over whether to adopt new technology in the health system, past increases in spending partly reflect the Australian Government’s choice to fund new technologies” (IGR2, 2007).

In other words, the future funding challenge for hospitals is significant and governments both at the Federal and State level have major incentives to get the policy environment right to deliver efficiency gains over time.

2.2 PUBLIC HOSPITAL FUNDING IN VICTORIA

The Victorian public hospital funding system is made up of a number of components including casemix funding for admitted acute care, and other funding including grants.

As the table below shows, casemix funding through WIES payments forms the core of the funding for public hospitals making up over 60% of funding. The Victorian casemix funding system has been in operation since July 1993. The essence of casemix funding is that hospitals are funded for the amount and type of work they undertake – the funding system does not distort decisions on the type of health services which will be delivered.

- ❑ Separate/additional funding is provided for training and development, specified grants for selected services; and to strengthen the availability of services (waiting list bonuses, and so on).
- ❑ Funding is provided to hospitals on the basis that the current range of services provided is continued. Before hospitals undertake a significant change in the range or

scope of services, the planning implications of such a move must be discussed and agreed with the Department of Human Services.

TABLE 1: 2006-07 PUBLIC HOSPITAL FUNDING COMPONENTS

Major funding type	Description / Sub components	% Total Allocation
Acute admitted care (WIES payments)	<ul style="list-style-type: none"> • Hospital care • Hospital In The Home 	60.2
Acute admitted care (other)	<ul style="list-style-type: none"> • Training and Development and Research grant • Access, performance and incentive grants • Specified grants - complexity, contracts and formula adjustments, incl critical and neonatal care 	8.8
Sub-acute admitted	<ul style="list-style-type: none"> • VicRehab: sub-acute rehabilitation patients in designated units • Geriatric Evaluation and Management (GEM) • Palliative care • Transition care • Post acute care 	8
Non-admitted acute	<ul style="list-style-type: none"> • Non-admitted emergency services grant • Health service strategic emergency projects • Highly Specialised Drugs • VACS - Victorian ambulatory services grant for major hospitals • Non-admitted grant for non-VACS hospitals • Grant for non-admitted radiotherapy 	17.7
Non-admitted acute	<ul style="list-style-type: none"> • Chronic Disease Management – HARP • Sub-acute ambulatory care services 	3.6
Infrastructure	<ul style="list-style-type: none"> • Equipment 	1.7
Total		100.0

Source: Victoria–Public hospitals and mental health services: Policy and funding guidelines 2007–08

Once provided to hospitals, the funding is allocated across patients admitted to hospitals across a range of purposes as shown in Table 2 below. While acute care plays by far the most important role in admitted patient separations, other purposes such as rehabilitation and mental health also have a significant part.

TABLE 2: ADMITTED PATIENTS 2005–06

Care type	Total separations	%	Total patient days	%
Acute*	1,262,137	96.2%	3,341,874	75.3%
Sub-acute rehabilitation	13,143	1.0%	305,850	6.9%
Mental health	17,087	1.3%	317,254	7.2%
Sub-acute GEM	11,232	0.9%	291,898	6.6%
Palliative care	4,729	0.4%	74,900	1.7%
Interim care	2,242	0.2%	53,254	1.2%
Nursing home type	986	0.1%	51,218	1.2%
Alcohol and drugs	122	0.01%	612	0.01%
Total	1,311,678	100%	4,436,860	100%

Note: *1.0 per cent of acute separations are not WIES-funded.

Source: Victoria-Public Hospital and mental health services: Policy and funding guidelines 2007-08.

Patient based funding is clearly appropriate for patient services but not all hospital services are related to the provision of current patient services, nor are all services equivalent. As a result, additional funding is provided for training and development, specified grants for selected services and capital; and to strengthen the availability of services (waiting list bonuses, and so on).

Overall, the level of funding provided by the Victorian government to public hospitals appears to be set on the basis that the current range of services provided is continued. Before hospitals undertake a significant change in the range or scope of services, the planning implications of such a move must be discussed and agreed with the Victorian government.

In rural areas and for smaller regional hospitals which do not have the same volumes of patients as metropolitan hospitals, funding is allocated by block grants rather than casemix.

Casemix, DRGs and WIES

Casemix funding is based on a patient episode that is both weighted according to its Diagnosis Related Groups (DRG) group and adjusted to the length of a patient's stay. This unit is called the Weighted Inlier Equivalent Separation (WIES).

Hospitals are funded largely upon the WIES they perform (up to a predetermined limit) multiplied by a unit price.

In Victoria the primary casemix funding classification refers to all acute or general hospital patients, funded through DRGs and WIES. In 2005–06, 95% of all patient separations were funded through WIES and this accounted for 75% of bed days.

Statewide budgetary limits are set by government. To ensure overall hospital funding remains within those limits hospitals are allocated a designated number of WIES each year and not funded for WIES in excess of this target.

Current budget arrangements for acute hospital care in Victoria

Hospitals, in the context of a fixed annual health budget for the State, are themselves provided with capped annual budgets. These annual budgets are broken down into streams of care funding for the different components of casemix as well as other funding streams including other acute outward funding systems, subacute and mental health.

A hospital knows in advance the total number of WIES it will have available in a year. It must then undertake planning to stick to this target (within a 2% buffer) with no real capacity for additional funding in the event of budget overrun.

The amount of money provided, and the price paid for any given component, will depend on a complex set of considerations which include: the level of total resources available from the government, *required productivity dividend or savings*, additional funding in the form of wage growth, and funding for specific initiatives and/or general growth.

The level of funding provided to individual hospitals on a year to year basis is generally not seen as being set in a transparent manner. Year to year changes in individual hospital funding include consideration for:

- the historical allocation of resources;
- any planned growth or reduction due to activities;
- the level of available resources; and
- whether the hospital is in an area with lower or higher than average age, sex and socio-economic adjusted population utilisation of hospital services.

The funding formula can include adjustments to the WIES price which reflect expected productivity gains. In addition the target for the volume of services appears to have been used in effect to extract productivity gains from hospitals. Anecdotes suggest that targets often reflect the current (or historical) range of services provided by hospitals, rather than adequately provisioning for future volume growth.

Note that the funding system is not designed so that a given hospital has a defined population and provides all services to that population. Instead, community hospitals are expected to obtain levels of 65% and 75% self sufficiency, but cannot be expected to be fully self sufficient in all services – and patients are referred elsewhere for other services such as specialists.

Budget caps and the need to ensure that emergency and urgent care is always provided dictates a series of planning measures at hospital and whole of system level. In addition the system utilises capital and recurrent resource restrictions to ensure that duplication, particularly of highly expensive high technology care, is minimised. Finally there are specific price signals, such as through bonus and penalty arrangements, which encourage desired policy outcomes - such as meeting emergency and elective surgical waiting time targets – (see discussion in *Casemix Funding for Acute Hospital Care in Victoria, Australia* by Dr Chris Brook, Director, Acute Health, Department of Human Services, Victoria, Australia).

Current capital funding arrangements for public hospitals

In addition to the casemix funding and standard budget funding arrangements, hospitals can apply for grants to increase the capital stock of the hospital or upgrade existing facilities. Access to this capital is approved by the government based on analysis of the particular business case compared to capital funding bids by other public hospitals.

Capital funding is not specifically linked to productivity targets or outcomes, although a return on capital is required.

Capital is a key element of the future capacity of the Victorian health care system to deliver on productivity growth. Linking capital funding to areas of identified potential productivity improvement could well unlock significant gains for the overall efficiency and effectiveness of the healthcare system.

Indeed, productivity dividends will become increasingly difficult to meet without the benefit of strategic capital investment.

Given the diversity in the size of institutions involved, access to capital funding should take into account benefit cost ratios to ensure that small rural institutions are still able to access capital funding where economic cost benefit analysis suggests a sufficiently positive return. To this end accounting and reporting practises need to align to ensure consistency across the institutions.

2.3 IMPACT OF THE ENTERPRISE BARGAINING PROCESS

For public hospitals, it appears that enterprise bargaining agreements (EBAs) can effectively compound the explicit productivity targets that many institutions are required to meet.

The recently negotiated Nurses EBA ran along the same lines as the Victorian government has taken with other EBA processes with public servants, incorporating a 3.25% pay rise with an unfunded component (in this case 0.75%) to be accounted for within anticipated productivity gains of the employing institution.

For hospitals, that 0.75% unfunded component is effectively another productivity target to meet.

But for some individual facilities the detail of the EBA can make the unfunded gap even greater. A high level unfunded gap of 0.75% in aggregate nursing wages, for example, may well translate into as much as a 7% increase in aggregate costs for a hospital. The divergence depends on the cost of implementing the new conditions of work rather than just the overall wage rise.

The EBA sets out remuneration for nurses along with a series of regulations in relation to employment, and hospitals have argued they have not received adequate funding to cover the wage bill at their hospital. The difference is, in effect, another efficiency dividend, or productivity target. Our initial investigations have not revealed the methodology used by the Department of Health to determine what is an achievable productivity target for any individual public hospital.

The broad principle of setting explicit productivity targets is sound - all public service institutions should continually work to improve productivity, efficiency and effectiveness.

The public hospital system is no exception, and in fact on the whole has been successful over time in delivering improved productivity. Increasingly detailed analysis and research will be required to continue to improve productivity into the future.

While the targets have remained or increased, of late it appears as though the productivity gains have become increasingly difficult to find. Much of the low hanging fruit has been picked and further growth is increasingly looking like it will require significant investment to achieve the next level of productivity. It is also potentially problematic that the funding mechanism in Victoria has no direct link between capital funding (the most likely source of further significant productivity gains), research and analysis and productivity targets.

To the extent that these productivity targets increasingly become unachievable, then this implied target within the EBA framework poses an increasingly large risk to the sustainability and adequacy of funding for the Victorian public hospital system.

The current funding framework suggests that the EBA process is being used as an opportunity to increase the implied productivity dividend extracted from hospitals.

Central agencies may well be awaiting outcomes to assess the exact implications for each organisation – assuming that mop up funding will close the gap between actual productivity gains and those explicitly implied in the targets (the gap in the EBA process).

This is dangerous to the extent that a major under estimate of the dollar value of the gap implies a funding shortfall for the State's budget.

Either way, it is clear that this situation will more than likely lead to a number of hospitals being put into an untenable financial position in the interim period between the gap-funding materialising and the end of the financial year.

This puts significant pressure on administrators regarding increased financial reporting requirements, at a time when arguably their time would be better placed maintaining cost controls to minimise the scale of any unfunded component.

Our initial investigations have also revealed that some incentives in the current funding structure are not necessarily helping the achievement of transparent reporting. It has been argued that the rewards and penalties framework may actually hide some realities of access for the community. Waiting lists need to be transparent as do the implications of rewards and penalties systems that may encourage anything less than transparent reporting practices in hospitals.

2.4 FINANCIAL PERFORMANCE AND SUSTAINABILITY

The key determinants of financial performance and outcomes in the public hospital system are influenced by two crucial issues:

- ❑ the range of programs delivered (i.e. sub-acute, community care, aged care vs solely acute); and
- ❑ the wealth of the surrounding area (i.e. the level of private health insurance cover and the ability to meet gap payments).

The financing system for public hospitals in Victoria encourages hospitals to produce efficiency gains over time. In practice however many hospitals are not meeting the efficiency targets set of them. This is happening on a widespread scale, which suggests:

- ❑ efficiency targets are set at a level which is too restrictive; and/or
- ❑ hospitals are constrained in other ways from achieving further gains.

The June 2007 Victorian Auditor General's report on *Public Hospital Financial Performance and Sustainability* highlighted a range of significant issues in relation to ongoing funding within the Victorian public hospital system. Among other things, this report concluded there were significant financial challenges confronting the 91 Victorian public hospitals, including:

- ❑ 35 hospitals had less than 30 days of operating cash outflows as cash holdings at 30 June 2006;
- ❑ over one third of hospitals had negative working capital positions or had operating deficits; and
- ❑ 23 public hospitals did not technically comply with the "going concern" test in the Australian accounting standards, including 9 major metropolitan hospitals, which account for *over 60 per cent of the total turnover of all Victorian public hospitals*.

Some of the key indicators highlighted above have shown consistent unfavourable trends or results for the six years leading up to 2006, including working capital positions, cash holdings and operating results.

This suggests both short-term and longer-term financial sustainability challenges for hospitals as a direct result of the structural inadequacies of the funding system and its relationship (or lack there of) to data on productivity, efficiency and effectiveness within the public hospital system.

Further, this may indicate that output and efficiency targets are being set at unachievable levels.

It is possible that efficiency targets which were appropriate for public hospitals a decade ago are no longer achievable, or are very difficult to achieve given the constraints imposed by the current system.

Either way, the current adversarial approach (where central agencies appear to set very high productivity targets) may not be leading to the best outcome. That said, moving towards a more co-operative research and data based framework for achieving productivity gains is easier said than done.

However, there are a range of improvements that could be achieved if a move towards a more research oriented approach were made. This could include research based on clearly defining the productivity frontier for each level of service delivery and then identifying and

implementing a path for reform of less efficient existing systems that fall below the acceptable range of deviation from the frontier.

This is not to say that this type of research is not already in existence – it is. However, it exists in more of a piecemeal way than may be optimal for the public hospital system.

Harnessing the potential of this type of research based analysis of operating environments may well be the key to unlocking future productivity in service delivery for the Victorian public hospital system.

Essentially, hospital administrators and policy analysts in central agencies need assistance to identify methods and practices to improve the efficiency and effectiveness of the public hospital system from thorough research and better data.

Instead of draconian financial systems management based on cost suppression, micro level analysis of work practices needs to be melded with macro level system analysis of the entire public hospital framework of service delivery.

Without this type of analysis, opportunities to achieve further leaps in efficiency may now be somewhat more limited and difficult to achieve than central agencies are aware of.

This is reinforced by ‘constraints’ such as regulated nurse ratios, and specific task orientation related to training levels. This combination of constraints (of which we have only noted a few obvious examples) may well mean that changes cannot be made to significant proportions of a hospital’s budget to meet productivity targets implied in the budget constraint.

Effectively as many areas are off limits for micro cost management, this leaves a relatively small proportion of the operating budget to achieve the required efficiency gains in the current framework.

3. CURRENT ARRANGEMENTS FOR VICTORIAN HEALTH CARE FUNDING – THE CASE FOR CHANGE

The current financial funding framework is set up as an adversarial system. The system was developed from reforms in the 1990s – a period of sharp change in incentives that yielded strong gains in productivity in the Victorian health care industry – and has evolved over time progressively since then. The fundamental funding formula is based around case-mix funding for a defined number of separations and maintaining a consistent mix (and quality) of services for other operations.

Productivity targets are implied in the funding, in that budgets of healthcare institutions are only partially funded with the gap to be made up from productivity and efficiency improvements over time.

The ability of hospitals to meet productivity targets effectively determines their ability to balance budgets (abstracting from other cost pressures).

While broadly sensible from a central agency perspective, health care productivity has been improving at the operational level but achieving constant productivity returns is much more difficult. Each organisation faces varying cost pressures and constraints on change that act to limit ongoing productivity growth.

The current system, when first implemented, was a significant source of past successes on the productivity front.

However, the current funding framework system also sees productivity gains effectively captured by the central agencies and returned to the State's budget.

Incentives in the system are based around the notion that tighter administrative controls can continue to generate productivity gains.

This system was set up within a framework of incentive structures that were very effective in extracting productivity and efficiency from public hospitals in the past when public health care had few of the modern (private sector) business support structures.

It was this feature that formed the basis of a strong argument for putting this system in place in the last decade. This has also driven the process of evolving and refining the system in recent times.

The broad frameworks behind the current funding did see significant gains in productivity via tighter cost controls and a stronger focus on administrative efficiency and the implementation of improved accounting frameworks across the various health care cost bases.

For example productivity and efficiency was enhanced by:

- the introduction of new technology;
- optimising staff rostering systems;

- ❑ maximising administrative efficiency and back office operations via the use of modern accounting frameworks to monitor and control costs;
- ❑ minimising waste on cleaning costs and food services; and,
- ❑ better use of IT systems and other office based technology.

The success of these past reforms is in some way the undoing of the system. Once waste and inefficient practices are changed and optimised the hunt for further productivity growth becomes much more complex.

Following initial discussions with Victorian hospitals and our own research, it seems that these types of reforms today (which naturally stem from the existing funding framework) are less likely to yield the scale of productivity growth required to balance hospital's budgets in today's health care environment.

The structure of the Victorian health care industry and the pressures today are vastly different from when the funding framework was set up. This is best evidenced by the problem of financial insolvency in the Victorian public healthcare sector.

In short, much of the low hanging productivity fruit has been picked – further gains today require a vastly different approach. This means reassessing the impacts of incentives, impediments and cost drivers on achieving the broad goals of the provision of public healthcare in Victoria.

Exactly what this approach implies for the structure of the Victorian health care funding framework is unclear without further research analysis and consultation within the industry.

This scoping study provides terms of reference for a broader research project involving case studies using a select group of representative public health care institutions.

There is now possibly greater potential to improve productivity and efficiency – particularly given the impending demographic challenge outlined in the Federal government's 2007 Intergenerational report - by moving towards a more co-operative framework based on research and providing hospitals with assistance to implement change that will improve outcomes.

A move towards a more co-operative research based approach may align the current central agency productivity targets, the impacts of cost drivers and pressures and the requirements for sustainable institutional funding into a system that is capable of delivering the right outcomes for all stakeholders.

A more co-operative approach could well yield greater results given that efficiency and productivity gains become increasingly hard to find over time, and often need additional support such as capital funding in order to be achieved.

A more co-operative funding system might incorporate some of the following principles:

- ❑ a research based approach incorporating key industry (both private and public) expertise to identify and implement opportunities to improve productivity for various sized organisations;
- ❑ an understanding of the cost drivers behind evolving budgetary pressures;
- ❑ an understanding of the impact of demographic pressures and changing service mix on demand and costs;
- ❑ identifying and targeting key performance indicators utilising benchmarking to set up best practice guidelines (against both domestic peers and international processes where appropriate); and then,
- ❑ assisting and working co-operatively with individual hospitals to implement best practice procedures based on local environmental conditions and constraints.

Undertaking this type of ongoing detailed analysis of cost pressures and drivers in association with implementing best practice may provide a better environment to achieve productivity gains and ensure the development of frameworks that are transferable and allow for continual improvement in service delivery.

4. WAGES AND PRODUCTIVITY

In assessing the link between wage growth and productivity it is worth noting the relevant economic fundamentals here. In brief, longer term wage outcomes reflect a return to skill, while shorter term outcomes reflect a return related to scarcity.

Long term wage outcomes

Over the long term, growth in real wages for a sector or an occupation should be related to growth in productivity. That is, to achieve wage gains in real terms (above the general rate of inflation), there needs to be a matching improvement in productivity.

Or, in other words, longer term wage outcomes respond to developments in labour productivity and inflation. Labour productivity is defined as the output produced (services delivered for a given quality of service) for a given amount of labour used.

Productivity growth in the health sector can be derived from a variety of sources (much broader than just a focus on nurses' work practices). Those sources include:

- ❑ **more capital** (a higher volume of equipment – 'more machines' – which can deliver outcomes more efficiently than alternate processes);
- ❑ **better use of capital** (having better equipment or making better use of existing equipment to again achieve outcomes more efficiently);
- ❑ **changing the mix of labour and capital** used to deliver services (particularly where lower cost labour or capital can be used to deliver components of services without any loss of quality);
- ❑ **more efficient work practices** (such as rostering practices which minimise unused labour); and/or
- ❑ **streamlining administration** (such as introducing centralised systems which can deliver economies of scale, provided there is no loss of functionality or quality).

Historically, many of the productivity gains in the hospitals sector have no doubt largely been achieved by adopting better technology over time (investment in more capital and better capital). Often such gains from additional investment do not mean a lower cost (indeed the investment often means a higher ongoing cost), but the investment does deliver an improvement in either the volumes of services conducted or the quality of service.

Focusing on the outputs achieved is a vital element in measuring productivity – the focus should not just be on minimising costs.

Short term wage outcomes

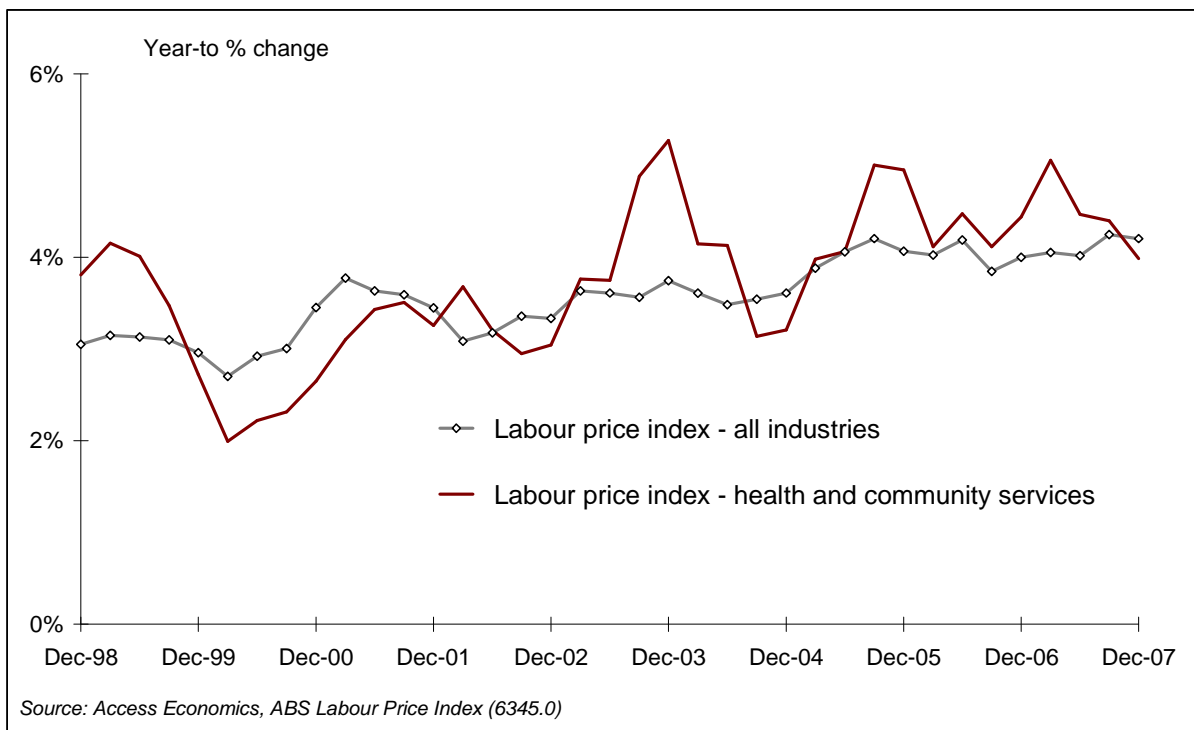
While inflation and productivity growth provide important benchmarks over the longer term, short term wage outcomes may still differ from those broad trends. Wage outcomes will reflect not only productivity and inflation, but also the pace of demand and the availability of supply among relevant types of skilled labour.

That means higher wage outcomes when nurses are in shortage relative to the demand for them, offset by slower wage growth when there is a relative over-supply of nurses.

The labour price index shows that, since 2003, wage growth in the health and community services sector has generally exceeded economy-wide wage growth. Chart 4 shows that from 1999 to 2003 the reverse was generally the case.

The public hospital sector constitutes a notable proportion of the health and community services sector and, within that, the wage bill for nurses is a significant component. Indeed, data from the Australian Nursing Federation’s *Nurses Paycheck* publication supports the view that wages for nurses in public hospitals have grown strongly over recent years but had slower growth earlier this decade.

CHART 4: WAGE GROWTH: HEALTH AND COMMUNITY SERVICES VS ALL INDUSTRIES



If allocated funding levels for public hospitals are based on economy-wide wage growth, that may have produced some under-funding of late given the relative increase in demand for health workers.

In addition to wage rates, providers of hospital services have needed to dig deeper over the past four years in order to meet the nurses’ wage bill because the occupation has been in relative skill shortage indicating that other conditions may have been added to base agreements to attract staff. The trade-off for that came earlier this decade when gains in nurses’ wages were below economy-wide wage growth (meaning, other things equal, a relatively lower cost for those who purchase hospital services).

In the context of the Victorian public hospital system, it would be 'unfair' to ask hospitals to carry the can to meet recent higher wage growth for nurses out of their own funds if they have not been allowed to retain the funds saved from wage moderation earlier this decade.

Such a non-linear approach is hardly ever likely to make sense over the longer term.

Equally, it is hard to quantitatively define 'fair' funding levels, given the difficulties (among other things) of estimating productivity changes over time, as well as estimating whether the starting period wage levels were also 'fair'.

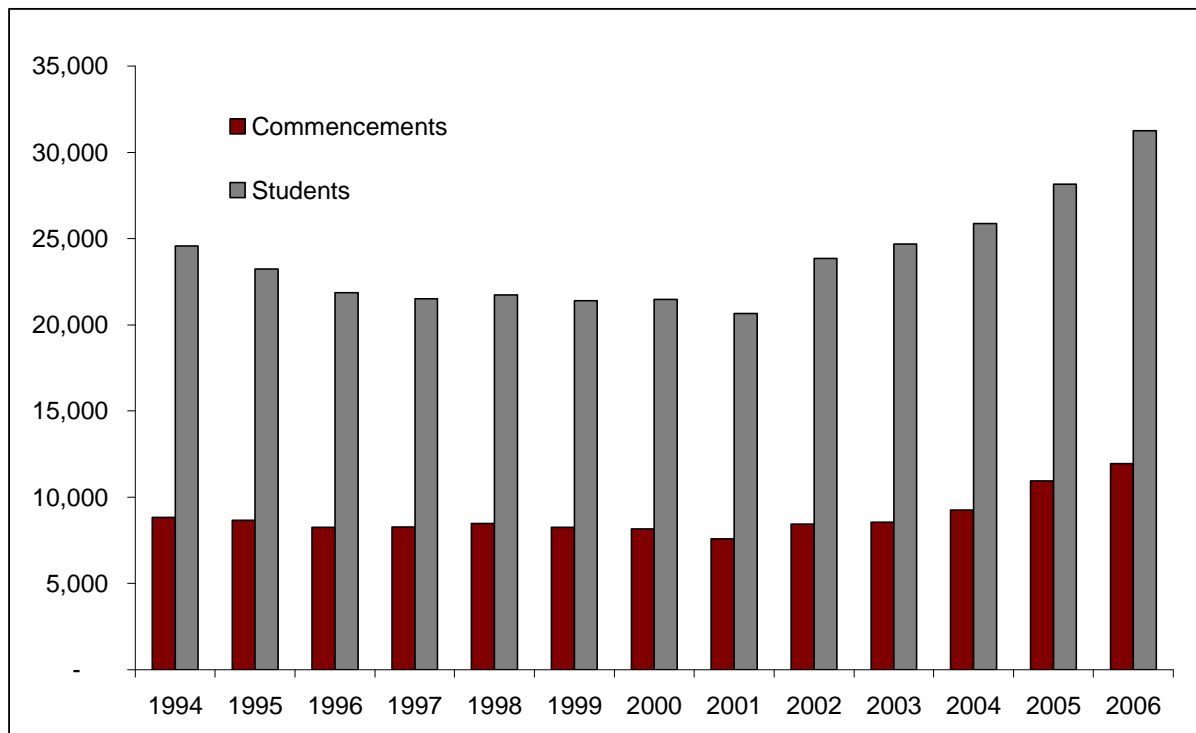
Supply side changes

It should be noted that the higher than average wage growth seen for nurses over the past few years is unlikely to become a permanent phenomenon. Indeed, Chart 4 shows that of late wage pressures in the health and community services sector may be dissipating.

Demand for nurses is likely to stay strong, but measures are in place to increase the supply of nurses which should go some way to redressing the imbalance.

There has been a significant focus on **increasing the number of university places for nurses** over recent years. The number of new commencements and enrolments at university (the career path to becoming a Registered Nurse, which should account for the lion's share of overall nursing employment growth) is shown in Chart 5. Both commencements and continuing students have shown a marked increase in the past three years, following on from a decade of flat to falling nursing commencements. Commencements have leapt from a stable rate around 8,000 per annum to nearly 12,000 in 2006.

CHART 5: NUMBER OF STUDENTS STUDYING NURSING AT UNIVERSITY NATIONWIDE



In addition, **migration** offers another means of supplementing the nursing labour force. It is one method which can potentially respond to shortages of skilled workers by placing a greater emphasis on applicants with nursing skills in the migrant selection process.

TABLE 3: MIGRANTS TO AUSTRALIA NOTING NURSING AS THEIR OCCUPATION

	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
242 – Nurse Managers	5	4	4	1	4	5
242 – Registered Nurses	1,016	1,374	2,616	2,811	3,560	4,466
341 – Enrolled Nurses	17	20	4	4	25	15
Total	1,038	1,398	2,624	2,816	3,589	4,486

Table 3 shows the recent increase in the number of people settling in Australia with a nursing qualification, the vast majority of which have a RN qualification. In addition there were 3,090 457 visa entrants during 2006-07. Entry through this visa program is often a pathway to permanent migration to Australia.

More generally, workers across all occupations are being encouraged by governments to participate in the workforce for longer. **Labour force participation** in the older working age cohorts has increased in recent years, notably for nurses.

Those trends suggest that the nursing supply side is being bolstered, and will increase further. The benefit to nurses' wages from a skill shortage environment is likely to be a temporary one. But a skill shortage environment for nurses has been a feature of late.

5. PRODUCTIVITY ESTIMATES IN THE HEALTH SECTOR

Why do we need to measure productivity? What are we aiming for anyway?

Furthermore, what intrinsically links productivity with the task of public hospital administration?

It is important to make some salient points about what should underpin public sector productivity, as this helps us to understand why expenditure decisions will become increasingly more critical over time and why the existing framework should be reviewed.

The point is made most appropriately in a recent report prepared by TFG international for ACHR 'Report into the Operation and Future of the Australian Healthcare Agreements and the Funding of Public Hospitals':

"...public hospitals, which are a large part of the Australian healthcare system, provide a consistently high standard of preventative and curative healthcare relative to other countries belonging to the OECD".⁵

But there is a catch....

"The cost of maintaining the health system at its current high standard is becoming prohibitive. This will continue to be the case. In short, if there is not structural change, Australia will not be able to afford a health care system at the current standard."⁶

Why...

"This problem is, in part, due to our ageing population and the exponentially increasing demands for capital and recurrent funding by the health system."⁷...

"The obvious answer to this dilemma is that structural change and a change of approach is required - now."⁸

While the level of future health care expenditure is a choice for the Australian public - policy makers and administrators must ensure that the system is set up in a way that maximises the 'bang for our health care buck'.

This means optimising effectiveness, efficiency and productivity of the public hospital system - a significant challenge requiring decisions based on research, underpinned by strong data resources, and sound forward thinking analysis by experts in the field.

⁵ TFG International, ACHR, *Report Into The Operation And Future Of The Australian Healthcare Agreements And The Funding Of Public Hospitals*, 2008. pp 6.

⁶ Ibid

⁷ Ibid

⁸ Ibid

Issues around measuring productivity

There is a need for better evaluation of various approaches to service delivery across the health system more generally.

Until policy makers and administrators have a crystal clear understanding of exactly where the productivity frontier is for any given sub-section of public hospital operations in Victoria – or across Australia for that matter – it is extremely difficult to make significant inroads into improving productivity.

A number of studies into productivity in public institutions have been conducted in recent years.⁹ However, a general theme has emerged across much of this body of work - a lack of 'the right' kind of data has hamstrung attempts by researchers to accurately measure productivity in public and private sector hospitals. This limits the gains that can be made from benchmarking to the service delivery processes of the work area at the productivity frontier.

Webster, Kennedy and Johnson (1998) found the data set available and existing econometric technologies for estimating productivity in hospitals wanting. Essentially, the data set used was not rich enough to effectively characterise the industry using standard economic models. In plain English this means that without better data it would not be possible to reliably estimate and then compare productivity (reliably) across different institutions within the industry.

For policy makers and administrators alike this is a key issue. Without robust estimates of hospital efficiency (that are robust to small changes in the sets of inputs and outputs) the value of productivity benchmarking is severely inhibited.

While Gabbitas and Jeffs were successful in compiling experimental productivity estimates using one of the methodologies tested by Webster et.al, they too found that small changes in inputs and output sets changed the results of the estimates significantly. Again the need for better data was noted.

Based on the available data and the strength of the results obtained, Gabbitas and Jeffs found that the "data indicated that there were significant differences in the level and growth of productivity across state jurisdictions in Australia, with the possibility of a degree of convergence in level terms"¹⁰.

In this preliminary working paper the authors tentatively suggest that there is scope to improve productivity in public hospitals. If the observed differences actually reflected potential productivity, then productivity improvements in the order of 10% may be achieved in aggregate for Australian public hospitals. This estimate falls within the range suggested by previous studies.

Importantly though the authors note that "an illustrative study on hip surgery suggests that the available data are not well equipped to delineate the productivity differences between

⁹ For example, see Webster, Kennedy and Johnson 1998, Gabbitas and Jeffs 2007, Productivity Commission Position Paper 2005, Productivity Commission Health Policy Round Table in 2002.

¹⁰ Owen Gabbitas, Christopher Jeffs, Productivity Commission, Preliminary Working Paper: *Assessing productivity in the delivery of health services in Australia: Some experimental estimates*, 2007. pp 27

service providers. Moreover, the data does not appear sufficiently robust to assess the scope for productivity improvements at the individual treatment level.”¹¹

This underpins an important point - potentially there are significant gains that can be made to productivity in Victorian public hospitals. But, until productivity can be linked to individual improvements in service delivery at the individual treatment level, then, administrators and policy analysts alike are operating with their hands tied behind their backs.

¹¹ Ibid, pp 28.

6. TERMS OF REFERENCE FOR BROADER STUDY

Terms of reference - detailed study of Victorian public hospital funding system and productivity targets

Review of current funding model

- Document current practice in relation to provision of acute care funding for public hospitals, and the process for allocating capital funding and the EBA process.
- Document how key parameters are set.
- Detail if possible the implicit productivity targets contained within funding allocations over recent years.

This would involve consultation with stakeholders such as providers, the Victorian Department of Health and Victorian Treasury.

Comparison with funding models in other jurisdictions

- What are the incentive structures under the current funding system?
- What are the alternatives available, and what are the relative strengths/weaknesses of the Victorian funding model in theory relative to others?

This would require a literature review focusing on other sectors or jurisdictions for a point of comparison. It would outline advantages and disadvantages of different funding models, and what the incentives might be for the respective players.

Case studies – quantitative

Undertake financial case studies on at least five different facilities over the past ten years (if possible). The case studies would track their broad finances and delivery of services over time. Funding information would be sought on:

- Major sources of revenue
- Major items of expenditure, including labour costs by broad occupation
- Volume of services targeted and delivered (reported as WIES volume targets and actuals over time)

Based on this information, derive a broad measure of productivity growth achieved if possible.

Case studies – qualitative

For the case study facilities, ascertain how productivity gains have been achieved over time and what scope there might be to achieve further productivity gains in the future.

- What are the constraints on these productivity gains being achieved?
- What can be done to relieve these constraints?

Develop policy recommendations

Based on the literature review, case studies and analysis develop policy recommendations on:

- ❑ Potential changes to the funding mechanism and EBA process with regard to both efficiency and equitable outcomes (and with a focus on incentive structures for optimal hospital performance over the long term); and
- ❑ How hospitals might better plan their resources given the current institutional funding arrangements.

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