ACT Health

Expanding hospital services in the ACT:

an additional 400 Hospital Beds

Health Service Delivery

Public Consultation & Discussion Paper

February 2011

Glossary

Acute – Acute care or an acute care facility is a branch of health care where treatment of an illness is required for only a short period of time. Many hospitals are classified as acute care facilities as they treat patient's illnesses and then discharge the patient as soon as they are deemed healthy and stable, with appropriate discharge instructions. Examples of acute care include surgical services, intensive care units, maternity units, paediatric units etc.

Sub-acute – The term 'sub-acute' was introduced in Australia in 1992 to describe patients whose needs for health care is predicted by their functional status, rather than their principle medical diagnosis[1]. In sub-acute care the predominate goal is enhancement of a patient's quality of life and/or improvement in his or her functional status. In non-acute care the predominant goal is maintenance of a patient's current health and functional status[2]. Examples of sub-acute care include rehabilitation, psycho-geriatric care, palliative care etc.

Capital Asset Development Plan – In 2007 the ACT Minister for Health instructed ACT Health to assess the needs for the future provision of public health services in the ACT. The response to this is the ACT Health Capital Asset Development Plan (CADP). The CADP is a blueprint for the redevelopment of the total ACT health system. The CADP was planned on the assumption that there will be continued public hospital services on the north side of Canberra and this included the previously explored option of ACT Health obtaining ownership and management of Calvary Public Hospital which is no longer an option.

Role Delineation – Role delineation is about the role level of a service and describes the complexity of the clinical activity undertaken by that service, and is chiefly determined by the presence of medical, nursing and other health care personnel who hold qualifications compatible with the defined level of care[3]. It is a process that determines the support services, staff profile, minimum safety standards and other requirements needed to ensure that clinical services are provided safely and appropriately.

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[1] Eager K, Innes K: *Creating a Common Language: The Production and Use of Patient Data in Australia.* Canberra, Commonwealth Department of Health, Housing, Local Government and Community Services. AGPS; 1992.

[2] Lee L, Eagar K, Smith M: *Sub-acute and non-acute casemix in Australia.* MJA 1998; 169: S22-S25.

[3] NSW Health (2002). Guide to role delineation of health services, 3rd edition, NSW Health, Sydney.

Background

The ACT Government is committed to ensuring there is continued provision and growth of acute and sub-acute health care services for residents of the ACT.

An analysis has been conducted of the estimated future activity for general public health services for residents of northern Canberra based on current activity and trends. It is clear that there is an increased demand for services and this has led to further investigation of the options for meeting this demand. The options for how to deliver the additional beds required as a result of these projected increases are outlined in this paper.

In 2007, ACT Health undertook a comprehensive assessment of the population needs for the future provision of public health services across the ACT. This assessment showed that there will be a significant increase in demand for health services in the ACT over the next 15 years, and beyond. It is estimated that the ACT's public hospital admissions will increase by 77% and overnight hospital admissions will increase by 49% by 2022.

Adding to these demand pressures are ageing buildings and infrastructure in the Territory's current health facilities which are becoming increasingly difficult and costly to maintain. Furthermore, the physical capacity of these buildings is being fully utilised, and ACT Health will not be able to continue to respond to the increased demand through small additions to the current buildings.

ACT Health service projections focus on both hospital and community services. The Government is investing heavily in an expanded Community Health Centre (CHC) network in order to maximise the quality and range of services it can safely provide in the community. These investments to primary health care aim to ensure projections for hospital based services are only those that absolutely need to be on a hospital site.

The ACT Government has responded to these pressures through the Capital Asset Development Plan (CADP) which is a blueprint for the redevelopment of the total ACT Health system. The ACT Government has allocated over $500 million in funding to the program already and further funding is expected in the upcoming budget due to be handed down on the 3rd May 2011.

A detailed capital plan has been developed for the Canberra Hospital (TCH) campus, mental health facilities and community health facilities. The services available on TCH campus are planned to meet two distinct needs:

- To be a public hospital providing more complex care (often referred to as *tertiary level care*) for the whole of the ACT and surrounding areas of south eastern NSW.
- To be a general public hospital for south Canberra;

The decision facing the Government in the upcoming budget is one of how best do we provide for the expansion of our hospital system across the ACT? Reaching this decision involves examining all options about how to best provide acute and subacute care across our growing city. All of the options outlined in this paper involve substantial change to the way we currently provide hospital services. This will involve the expansion and renovation of the TCH campus and will also require decisions about how we provide hospital services on the north side of Canberra.

Current Public Hospital Services

Public hospital services in the ACT are provided at TCH at Woden and at Calvary Public Hospital at Bruce.

TCH is the major teaching and referral hospital for the ACT and surrounding region, and has approximately 620 beds. As the major trauma centre for the region, it provides a higher level of critical care services such as intensive care, emergency, retrieval, neurosurgery and coronary care. TCH also provides specialist obstetric, cardiac, paediatric and neurology services for complex and high risk cases.

Calvary was built in 1979 as an additional public hospital for the ACT and currently provides 222 beds. Calvary provides a broad range of acute care services and undertakes a substantial amount of the planned elective surgery in Canberra. Calvary is owned and operated by the Little Company of Mary Health Care (LCMHC) through Calvary Health Care ACT Limited (CHC).

The demand for additional acute services

The estimated resident population of the ACT was 353,626 in the September quarter of 2009[4] . This population is expected to reach about 400,000 persons by 2022; and about 500,000 persons by 2050[5]. The ACT is expected to experience significant population ageing, with those aged 85 years and over to increase by 509 per cent, reaching a total of 22,500 persons in 2056. This ageing is typical elsewhere in Australia and throughout the western world.

Currently approximately 23% of hospital stays in ACT hospitals are from NSW residents6. ACT Health hospital projections assume cross border patients will continue to account for a quarter of all hospital stays in the ACT into the future. For health planning purposes, we know that our health system provides general and specialist care to a population of more than 500,000 from ACT and the surrounding region. The current population of the ACT is fairly evenly split between northern and southern Canberra with much of the ACT's population growth expected to occur in the new development areas of Gungahlin and Molonglo. ACT Government projections suggest that the north/south population split will move slightly in favour of the north side from its current even split to be 53% north side by the end of the decade.

[4] Chief Minister's Department, ACT Government (April 2010): Canberra Quick Stats
[5] Chief Minister's Department, ACT Government (May 2009); ACT Population Projections 2007-2056
[6] AIHW Australian Hospital Statistics 2008-09

Based on the estimated demand data, it is expected that the demand in northern Canberra for general hospital services in 2022 will equate to an additional 272 beds across the following clinical areas:

Inpatient Beds

- Emergency and Critical Care
  - Emergency Department
  - Intensive Care Unit
  - High Dependency Unit
- Medical
  - Coronary Care Unit
  - Medical overnight beds
  - Cancer overnight beds
  - Acute Geriatric beds
- Surgical
  - Day Procedure Unit
  - Surgical overnight beds
- Women & Children's
  - Obstetrics
  - Special Care Nursery

Ambulatory (Outpatient) Services

- Oncology
  - Chairs
  - Inpatient day beds
- Emergency
- Ambulatory Care Consult Rooms
- Medical Day Treatment Spaces

Interventional

- Operating Theatres
- Procedure Rooms

Acute general public hospital services in northern Canberra are currently provided by the Calvary Public Hospital.

The demand for additional sub acute services

The difference between the acute and sub acute hospital setting is the duration of stay (see definition page 2).

There are currently 88 sub-acute beds in ACT public hospitals. The current locations of the beds are:

- **The Canberra Hospital** – 35 beds, comprising 20 beds in Ward 12B and 15 beds in the Rehabilitation Independent Living Unit (RILU)
- **Calvary Hospital** – 53 beds comprising 28 rehabilitation beds in the Keaney Building, 12 geriatric evaluation and maintenance beds in Ward 5E and 13 psychogeriatric beds in the Keaney Building.

The aged care and rehabilitation sectors are diverse in the range of services available, their locations and who provides the service (government, community, or private sector). People may require access to many or only one of the services available as part of their care and rehabilitation. Facilitating access and partnerships within the sector will have a positive outcome on a person's recovery and ability to maintain independence.

Rehabilitation services are often well linked with other services that share expertise, equipment and service requirements. The same exists in relation to aged care services. However, a lack of coordination and a focus on single issues/body parts and discipline specific approaches can lead to less than optimal patient outcomes. Linkages between services that are common to both specialty areas needs to be better integrated.

Demand for sub-acute services is expected to grow significantly. The projected demand for sub-acute beds in 2021-22 is outlined in the table below:

Specialised Rehabilitation Services		**2021/22**
Sub-acute & non- acute beds		144
Older people's mental health Sub-acute & non-acute beds		20
ACT Health Total		164

Planning for north side hospital services

The discussions around the ownership and management of Calvary Public Hospital has provided an opportunity for the ACT Government to review its planning for hospital services across the ACT and how these services would be organised. In undertaking this review a number of issues have been considered.

Research evidence suggests that the most effective and efficient organisation of hospital services is achieved where each hospital has a clearly delineated role, and is able to specialise in specific areas of service delivery[7].

For example, where a hospital performs both emergency surgery and elective surgery, the urgency associated with emergency surgery will mean that the need to perform the emergency surgery will at times result in elective surgery being cancelled and postponed, reducing the efficiency and effectiveness of the hospital's elective surgery delivery.

Similarly, where a hospital delivers both acute and sub-acute care, the urgency associated with acute care delivery will frequently result in priority given to acute care ahead of sub-acute care, and in resources being diverted from sub-acute care to respond to increases in acute service demand. This in turn impacts on the efficiency and effectiveness of sub-acute service delivery.

Health services also require a critical mass of professionals and patients to ensure ongoing viability. Complex services cannot be established in isolation from other complex services. In most health care systems, this results in clustering of complex services within a small number of institutions. Not all

[7] Dwyer J: *Fixing the problems that beset the Australian hospital system.* MJA 2008; 189(4): 220-221

hospitals can provide all services to all patients and for many reasons, including patient safety issues it is not in the interests of the community to do so.

Currently in the ACT both public hospitals provide a mixture of emergency, acute and sub-acute care. In a health system the size of the ACT it is not possible, due to the relatively small numbers of patients and staff in a number of specialty areas, to completely separate types of services across hospitals, but achieving a clearer role delineation as far as is reasonably achievable between hospitals is a key factor guiding the consideration of the options outlined in this paper.

Another important factor in achieving high quality and patient centred health services is use of new technology, in particular use of modern medical equipment and information technology. This new technology is most important for acute services, where technology is able to provide treatment, imaging and diagnostic services that previously were not possible. In contrast, sub-acute services are based more on therapeutic and support services provided directly by health professionals with less reliance on technology. New technology has a direct impact on the construction of hospitals, with, for example, modern operating theatres being larger than older theatres to accommodate equipment, bigger medical imaging departments, and with higher levels of floor strength to accommodate heavier imaging equipment, and patient rooms and corridors larger and wider to fit larger patient monitoring and life support equipment.

Based on these issues, consideration of the options has been based on the principles outlined in the table below:

Table 1: Principles and Core Elements

Principle	Core Descriptive Element
Patient Centred	• Care is delivered in the right place at the right time • Have consideration of the needs of families and carers • Respect and promote patient and carer choice
Intra-disciplinary and Collaborative	• Involve a systems approach to services facilitating linkages and coordination • The workforce will be configured to deliver integrated care • Organisation of services will support funding and accountability arrangements
Accessible to all ACT residents	• Service delivery will be timely, equitable and appropriate
Safe and High Quality	• Services will be evidence based • Services will be provided in the ACT where there is an appropriate level of demand to ensure ongoing clinical competence, or will be referred elsewhere as necessary
Efficiency and cost	• Capital construction cost impacts should be minimised • Recurrent cost savings should be sought

Options & Analysis

The options below are focused on the distribution of a minimum of 400 additional beds across the ACT. The number of 400 additional beds is based on current detailed planning but it does not necessarily represent the final number of additional beds across the ACT by 2022 as these numbers will be updated to take into consideration demographic changes, changes in technology and changes in treatments as the CADP progresses over the next 10 years.

There are five options that have been developed and form the basis for this consultation. A summary of these options is outlined below, with each option later explained in further detail.

a) Additional beds placed equally between TCH and Calvary Hospital. This would include refurbishment at both facilities to enable the additional bed capacity;

b) All the additional beds be placed at TCH;

c) Some of the additional beds be placed at TCH with the remainder of the beds forming a new north side acute facility.

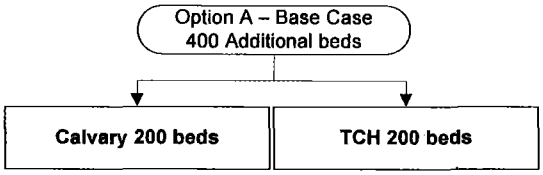
d) A fully networked and specialised hospital system linking TCH, Calvary Hospital and a new north side facility. Under this option, Calvary Hospital would become a centre of excellence focussing on sub-acute and private hospital related work and the new north side hospital would be the acute facility for northern Canberra.

e) A fully networked hospital system linking TCH, Calvary Hospital and a new north side facility. Under this option Calvary Hospital would be the north side acute facility, and a new sub-acute facility on the north side of Canberra would be developed.

A further option placing all the additional 400 bed on the Calvary Hospital campus has also been examined, but was not considered to be feasible for practical reasons. Placing an extra 400 beds on the Calvary campus would make Calvary over 700 beds in size, and the site is not big enough to support a hospital of this size without a substantial rebuilding of the hospital. It would not be possible to undertake this rebuilding at the same time that TCH is being redeveloped without significantly reducing the availability of hospital services in ACT. As a result, the rebuilding of Calvary Hospital would need to be delayed for a number of years, and would not be ready in time to respond to increases in demand for services.

It should also be noted that while the options focus on the number of additional hospital beds, these beds will need support services such as ICU beds, theatres, procedural rooms, and outpatient consulting rooms. The options below include costs associated with the development of the same amount of these support services. This has been done to ensure that the comparisons are valid.

Option A:



This option proposes that the additional beds be placed equally between both the existing Calvary Hospital and also the existing TCH (eg 200 additional beds at Calvary and 200 additional beds at TCH). This would include a refurbishment and further development on the Calvary Public Hospital site and would be on top of the additional beds already committed to at TCH under the CADP.

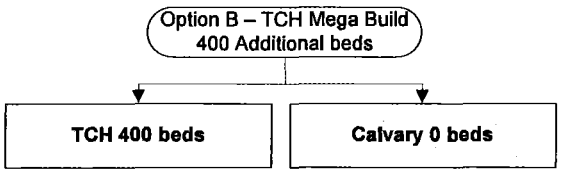
Assessment against principles

- **Patient centred**. This option would continue to provide services at the two public hospitals currently operating in the ACT. Accordingly, while there would be some scope to reorganise services to make them more closely aligned to the needs and preferences of patients, their families and carers, this would be more limited than under other options described below.
- **Intra-disciplinary and collaborative**. This option would not have any direct impact on the range of services provided at the two public hospitals. The new beds would enable some streamlining of the roles of both hospitals, and it would be possible to redistribute services at the same time to improve the role delineation. However, under this option both the hospitals would continue to provide a mix of emergency and elective acute services. Equally, at least one hospital would need to maintain a mix of acute and sub-acute services.
- **Accessible to all ACT residents**. This option would maintain the current two hospital system for the ACT. Currently, the majority of public hospital beds in the ACT are on TCH campus, and population growth in the ACT is projected to be greater on the north side of Canberra. Spitting the beds evenly across both hospitals would not be proportional to the distribution of population growth, and would not substantially affect the balance of beds between the south side and north side of Canberra. Accordingly, while the services would be accessible to all ACT residents, under this option, access to services would remain slightly less for north side residents.
- **Safe and high quality**. As discussed above, this option would enable some streamlining of services across both hospitals, and would accordingly support some improvements in the capacity of services at both hospitals to specialise in specific areas of service delivery, thereby improving the quality of services provided. However, while the new beds and related support services would be able to be built to support new service models and technology, the existing areas of both hospitals would require substantial refurbishment or rebuilding to integrate with the new areas of the hospitals and to support the new technologies and service models.
- **Efficiency and cost**. ACT Treasury has undertaken an analysis of the costs of each option. According to this analysis, the construction costs of this option is costed at $788 million, making it the third most expensive option. While this option would enable some efficiencies associated with streamlining services, the scope for efficiencies would be less than other options.

An important further consideration for this option is that it would involve both public hospitals in the ACT needed to operate around on-site construction at the same time. ACT Health's experience from the construction currently take place at TCH is that this has significant impacts on the planning and construction process and on the cost of maintaining the hospital services at the same time.

Also, construction on the site where existing services are provided can be expected to be more expensive and take longer because of the costs and time required to decant existing services from the parts of the site affected by the new construction. In addition, planning advice and regulations indicate that, for the Calvary Hospital site, a new multistorey car park would need to be built before any major new facilities could be built adding further time to the construction of any new health facilities on the site.

Option B



This option proposes to further invest in the TCH site by increasing its capacity to take responsibility for north and south side acute and sub/non acute care needs. This would result in a larger facility that what is currently being planned for the TCH site. Under this option, Calvary Hospital would continue to operate as an acute facility, as per its current operation.

Assessment against the principles

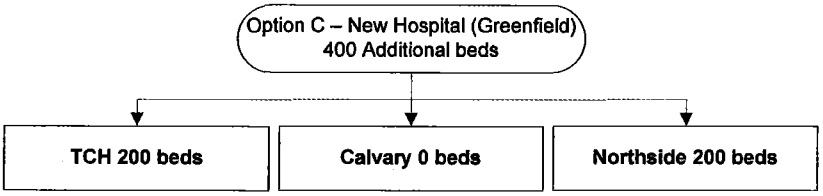
- **Patient centred**. This option would concentrate services further at TCH. This would mean that the two ACT public hospitals would continue to provide a mix of emergency, elective and sub-acute care, and that there would be limited scope to reorganise services to align more closely with patient, family and carer preferences or needs.
- **Intra-disciplinary and collaborative.** This option would not have any direct impact on the role delineation for the two public hospitals, and like the previous option, it would be possible to clarify the roles of the two hospitals and redistribute services at the same time. However, by concentrating the new beds at one hospital it would provide less scope for redistribution of services than the previous option.
- **Accessible to all ACT residents**. As discussed in relation to Option A above, the majority of hospital services in the ACT are currently provided at TCH, and the majority of population growth in the ACT is projected to be on the north side of Canberra. As a result, this option would result in hospital services being increased further away from the parts of Canberra that are growing fastest, and would not improve access for Canberrans living on the north side.
- **Safe and high quality.** As indicated, there would be some scope for improving the organisation of services under this option to improve the quality and safety of service delivery. However, there would be less scope under this option than under the other options outlined in this paper.
- **Efficiency and cost**. In the Treasury analysis, this option has the highest construction costs $833 million, and would provide less opportunity than other options to improve the operating efficiency of the two public hospitals.

Other issues relating to this option include:

- Access for non urgent, elective procedures and care could be reduced if these additional services were located within the one tertiary level facility due to the competing demands of providing high level trauma and emergency care. Patient outcomes may also be compromised for patients with less acute needs as urgent and emergency care will always take priority. Therefore the level of postponement for elective procedures is likely to increase under this option.

- The size of the land required to achieve this is significant and may require compromises so that the new beds could fit on the existing TCH site. The larger scale of the development would also have a greater impact on the continued service delivery at TCH and is also likely to experience longer delays associated with relocation of services to allow space for building new beds.

Option C



This option proposes to divide the additional beds required between TCH and a new north side hospital on a greenfield site with Calvary continuing to operate as currently. The role of TCH will continue and the new north side hospital would provide general public hospital services, including both acute and sub-acute services.

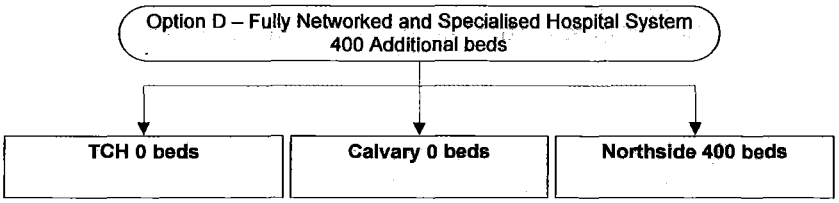
Assessment against the principles

- **Patient centred**. This option would provide an opportunity to reorganise services across three hospitals, and as a result develop new models of care and relocate services to align more closely with patient, family and carer needs and preferences. However, trying to distribute acute services across three hospitals would result in fragmentation of services and as a result reduce the capacity for like services to be consolidated at one hospital to meet patient needs in a single place.
- **Intra-disciplinary and collaborative.** This option would result in there being 3 acute hospitals in the ACT. This is likely to reduce the clarity of role delineation between the hospitals and result in duplication of services across the hospitals instead of improved streamlining and collaboration.
- **Accessible to all ACT residents**. The accessibility of this option would depend on the location that is found for the new hospital. Preliminary assessment of possible sites indicates that it would be possible to find a site for the new hospital that is as accessible for north side residents. This option would provide better accessibility than either Options A or B by providing a third hospital that Canberrans could access.
- **Safe and high quality.** The key to safe and high quality health service delivery is having sufficient skilled health professionals to provide services. The ACT is a relatively small health system with small numbers in some health professions, and it is at times difficult for the ACT to compete with

other jurisdictions to recruit health professionals. Adding a third hospital to the system providing similar services to the other two would stretch the health professional workforce in the ACT and add to the difficulties of recruiting additional staff.

- **Efficiency and cost**. The Treasury analysis concludes that this would have the second lowest construction costs of all the options at $731 million. However, having three acute hospitals in the ACT would result in duplication of services, and would not enable a clear role delineation between all hospitals. As a result, this option is likely to be less efficient in terms of service delivery than the other options.

Option D



This option proposes to maintain TCH and build a new general acute hospital on the north side of Canberra. This will allow TCH to provide emergency care as well as elective based care for residents of the south of Canberra. The new north side hospital would provide general public health services, including acute and sub-acute services to residents on the north side of Canberra.

This option will also enable three clearly delineated hospitals for the ACT including:

- A tertiary referral hospital being TCH – this hospital will meet the tertiary referral hospital needs for the ACT and region as well as meeting the acute general needs for residents of southern ACT.

- A new acute general hospital located in northern Canberra – this hospital will meet the acute general needs for the residents of northern ACT;

- A specialised rehabilitation centre – it is proposed that this centre be provided within the existing Calvary Hospital building which will enable it to continue operating to its current bed capacity.

Assessment against the principles

- **Patient centred**. This option would provide greater scope for services at each hospital to be organised according to patient, family and carer needs and preferences than the three options outlined so far in this paper. This option would enable a new hospital to be built focusing on elective surgery, reducing the pressure to balance emergency and elective surgery at each hospital. It would also enable Calvary Hospital to focus on providing sub-acute services and the development of improved models of sub-acute care on a single hospital site.
- **Intra-disciplinary and collaborative.** This option would allow for a clearer role delineation of services between the three hospitals, with TCH focusing on emergency and complex elective surgery and acute medical care, and the new hospital focusing on less complex elective surgery and acute medical care. Calvary Hospital would become a sub-acute hospital, enabling a clear role and focus on sub-acute services.
- **Accessible to all ACT residents**. This option would maintain the two acute public hospitals, and would expand services on the north side, consistent with the projected population growth on the north side of Canberra. Of all the options discussed so far in this paper, this would involve

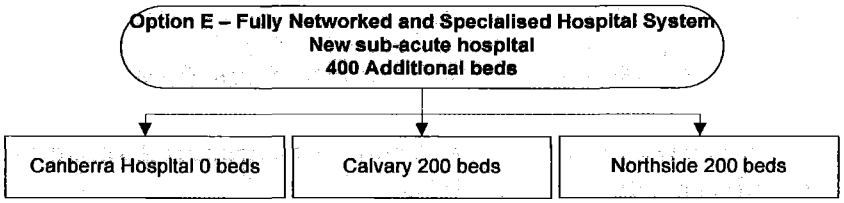
the greatest growth of services on the north side of Canberra and would as a result provide more equitable access of services across the Territory.

- **Safe and high quality.** In line with the clearer role delineation for each hospital, this option would allow the three hospitals to specialise in particular areas of service and consequently improve the safety and quality of services provided when compared with the other options.
- **Efficiency and cost**. The Treasury analysis indicates that this would be the lowest cost option for construction, with a cost of $688 million. The clearer role delineation for the hospitals could also be expected to result in more efficient running costs over time.

The conclusion of the Treasury analysis that says that building a new hospital is actually cheaper than redeveloping existing hospitals may seem unusual, and it is worthwhile explaining some of the reasons for this. These reasons include:

- Building a new hospital from the start means that the hospital can be designed in way to make the most efficient use of space in line with modern models of service delivery
- Building on the existing hospital campuses would require demolition of some buildings to make space for the new buildings
- Redeveloping the existing hospitals will require relocation of some services, with costs associated with establishing temporary facilities for these services, and with moving the services into and out of the temporary facilities
- Building a new hospital from the start is quicker because demolition and service relocation is not required, and as a result there are reduced costs associated with inflation and project management and administration.

Option E



This option creates a network of three separate public hospitals with clearly delineated roles and responsibilities, including:

- A tertiary referral hospital, being TCH which will meet the tertiary referral hospital needs for the ACT and region as well as meeting the acute general needs for residents of southern ACT;
- A refurbished and expanded acute general hospital located at Calvary Hospital which would partially use existing infrastructure and increase the hospital's overall capacity to approximately 400 beds;
- A newly constructed specialised sub-acute and rehabilitation hospital which would be constructed on the north side of Canberra and provide 200 sub-acute beds.

An essential factor to consider in this option is that, similar to Option A, it would again involve both public hospitals in the ACT needing to operate around on-site construction at the same time as delivery effective and high quality clinical services. Experience from construction currently underway

at TCH indicates that construction has significant impacts on the planning and construction process as well as on the cost of maintaining the hospital services at the same time.

Furthermore, as outlined above construction on the site where existing services are provided can be expected to be more expensive and take longer because of the costs and time required to transfer existing services from the parts of the site affected by the new construction. In addition, planning advice and regulations indicate that for the Calvary Hospital site, a new multistorey car park would need to be built before any additional facilities could be added which will inevitably increase the overall construction time.

Assessment against the principles

- **Patient centred**. As with Option D, the option would provide greater scope for reorganisation of services according to patient, family and care needs than other options.
- **Intra-disciplinary and collaborative.** In line with Option D option does allow for a clearer role delineation of services between the three facilities, with TCH focusing on emergency and complex elective surgery and acute medical care and Calvary Hospital focussing on less complex elective surgery and acute medical care.
- **Accessible to all ACT residents**. Similar to Option D, this option would maintain the two acute public hospitals, and would expand services on the north side of Canberra, consistent with the projected population grown in northern Canberra. In order to achieve this option, considerable refurbishment would need to occur at Calvary and this could temporarily impact accessibility of services during the period of construction.
- **Safe and high quality.** Similar to Option D, this option would allow the three hospitals to specialise in particular areas of service and consequently improve the effectiveness of services provided. However this is based on the assumption that the Calvary Hospital campus can accommodate a 400 bed acute facility and further work would be required to confirm that this is the case.
- **Efficiency and cost.** The Treasury analysis indicates that this option would cost $792 million, and becomes the second most expensive option. This option does enable efficiencies associated with streamlining services and with clearly defined role delineations this could be expected to result in more efficient running costs over time.

Where to from here?

The Government is seeking your views on the options available in relation to the demand for additional beds and is now engaged in a six week consultation period which will run from **25 February 2011 – 14 April 2011**. Submissions and feedback can be directed to hospital.plan@act.gov.au or by mail to Jessica Ryder, ACT Health, GPO Box 825, Canberra ACT 2601. Phone inquiries can be directed to 6205 3289.

Appendix 1

Cost

Capital costs

Construction cost estimates have been developed for each of the four scenarios. These are provided in table 1 below.

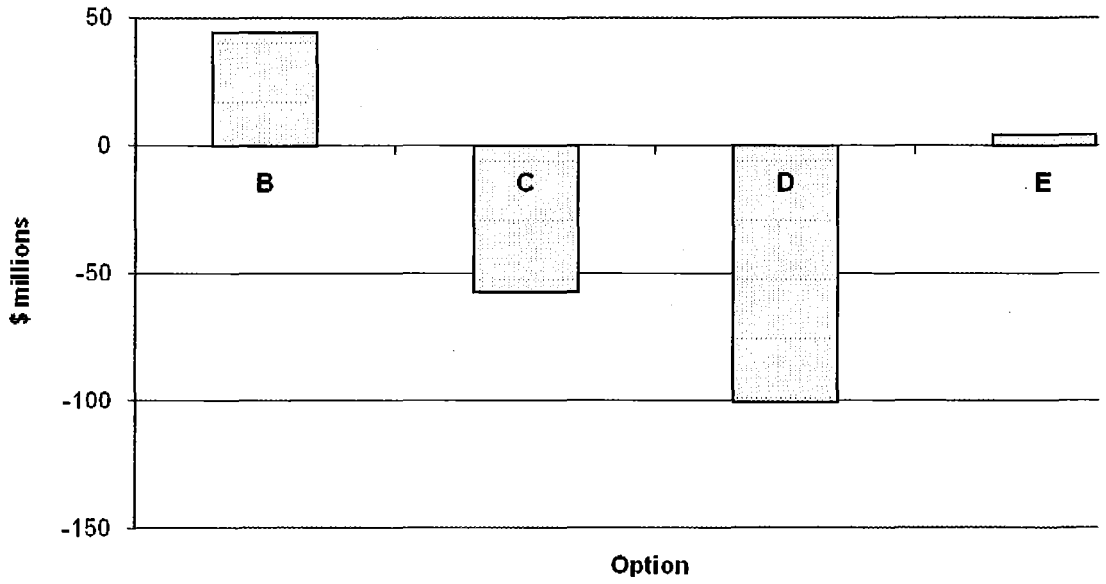
Table 7: Construction Cost Estimates[8]

Option	Location	Cost
A - Expand on existing TCH and Calvary Campus (Business as Usual)	200 beds TCH 200 beds Calvary Hospital	$788,460,000
B - Consolidation on TCH Campus (One Hospital Model)	400 beds TCH	$832,840,000
C - Build a New north side Hospital (Three Hospital Model)	200 beds north side Hospital 200 beds TCH	$730,810,000
D - A Fully Networked and Specialised Hospital System – new acute hospital	400 beds north side Hospital	$687,650,000
E - A Fully Networked and Specialised Hospital System – new sub-acute hospital	200 beds north side Hospital 200 beds Calvary Hospital	$792,320,000

The estimates indicate that Option D has the lowest capital requirement followed by Option C. Chart 1 shows the capital cost savings for Option D are $101 million from the business as usual approach of Option A. Option B has the highest cost being $40 million above Option E.

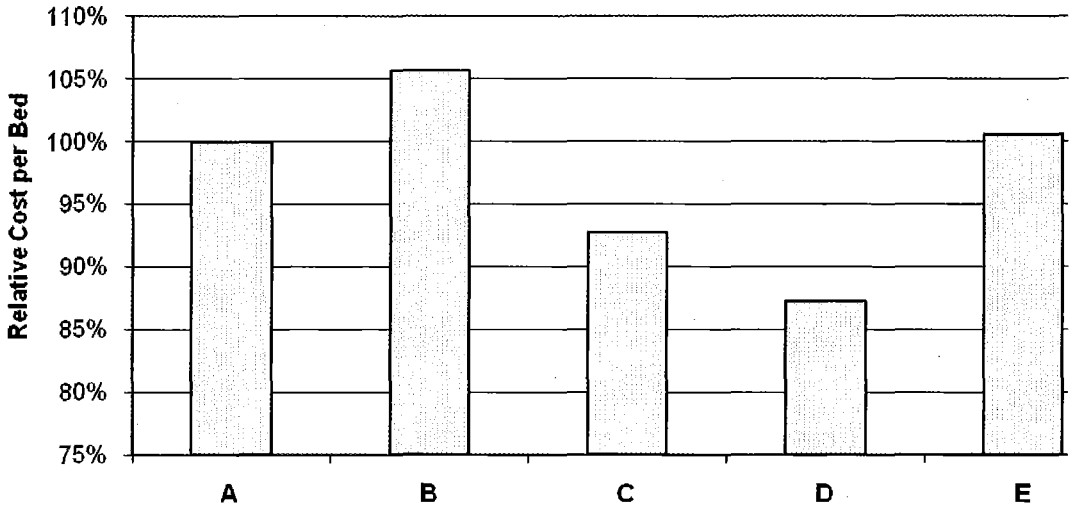
[8] Gross floor area estimates and facility planning undertaken by Thinc Health. Construction cost estimates provided by Rider Levitt Bucknall.

Chart 1: Capital Cost Differential from Option A



The relative cost per bed in Chart 2 shows Option D is 13 per cent cheaper and Option B is 6 per cent more expensive than Option A.

Chart 2: Capital Cost Comparision
Relative Cost Per Bed (Option A Base)



In summary, Options A, B and E have higher costs than Options C and D due to site constraints with Brownfield developments. This is reflected in higher costs associated with staging and decanting, increased complexity necessitating a larger contingency, and higher escalation allowances due to longer construction time frames.

Option B the Mega TCH is most constrained with the longest construction timeframe. Options C and E costs are below Option B as it benefits from half of the development occurring on a Greenfield site.

Greenfield sites are less complex, have reduced construction time frames and require no staging and decanting. For these reasons Option D, being built entirely on a new site, has the lowest construction cost.

Recurrent costs

Recurrent costs associated with the capital infrastructure for each option are expected to vary considerably. The table below shows the estimated annual cost differentials for each option compared to Option A. This identifies Option D as having the lowest recurrent cost and Option B the highest.

Recurrent Costs	Option B $m	Option C $m	Option D $m	Option E $m
Depreciation[1]	0.59	(0.77)	(1.34)	0.05
Financing Costs[2]	2.56	(3.33)	(5.82)	0.22
Maintenance[3]	0.89	(1.15)	(2.02)	0.08
Building Operating Costs[4]	0.07	0.31	(0.06)	0.52
Total Annual Cost/(Savings) Differential	4.11	(4.94)	(9.24)	0.88

Notes:

1. Depreciated over 75 years to provide an indicative estimate based on advice from independent valuer on the expected useful like of newly constructed hospital facilities.
2. Based on the Commonwealth 10 year bond rate of 5.77%.
3. Maintenance costs are assumed at 2% of the construction cost after the warranty period.
4. Building operating costs are assumed at $135 per square meter annually. This includes equipment running and inspection costs (ie lifts, air-conditioning and fire protection), cleaning, electricity, water, security and building management staff.