

*Department of Health,
Tasmania
Urgent Care Centre
Feasibility Assessment*

January 2019

Final report

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Executive Summary (1)

Background

This feasibility assessment sets out the rationale, scope, challenges and benefits of an Urgent Care Centre (UCC) and how a UCC service model can be financially sustainable over the project timeframe of 10 years. The intention of this feasibility assessment is to provide an overview of the financial outcomes for the UCC options developed for Hobart and Launceston and outline the next steps required for the development of a detailed business case.

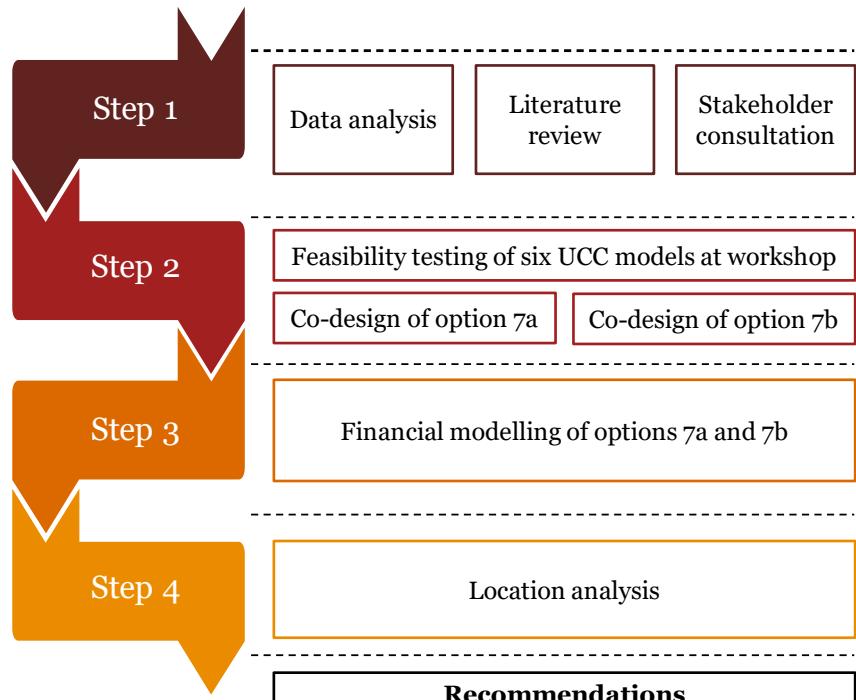
The opportunity

At the 2018 election, the Tasmanian government committed to commission a feasibility study into UCCs in the greater Hobart area, specifically Kingston and Glenorchy, and Launceston. This commitment is in response to the current challenges that the Tasmanian health system is experiencing, which include:

- Increasing demand for emergency department (ED) services
- Increasing demand for ambulance services
- Limited access to after-hours primary care
- Long wait times in ED
- An ageing population
- A relatively high proportion of the population being socially disadvantaged.

Whilst a number of initiatives have been implemented to service the intermediate space between acute and community care, there remains an existing gap in services; that being, a service that provides/is an alternative to the emergency department, quickly accessible both during the day time and after-hours for people requiring intermediate clinical care who would otherwise present to the ED.

Approach



Executive Summary (2)

Guiding principles

Our development of guiding principles for a potential Tasmanian UCC has been informed by a literature review and broad stakeholder consultation. A UCC is an intermediate space where low acuity urgent care can be delivered. The guiding principles include episodic care that is provided at no cost to the patient with no appointment necessary. The service delivers assessment and treatment for minor injuries and illnesses and may include diagnostics. The service has extended hours of opening, beyond that of existing primary care services.

Options considered

In general, the feedback from stakeholders identified that a UCC would be effective at reducing demand on ED, if designed and governed appropriately. Care needed to be taken around clinician and consumer awareness, managing high acuity presentation, avoiding duplication of existing services and attracting a workforce with the required skillset. Six options from other jurisdictions were identified in the literature review, and discussed with stakeholders at two parallel co-design workshops. Elements of these six options were included in the co-design of options designated 7a and 7b, with 7a having a nurse led and 7b having a general practitioner led workforce. Options 7a and 7b were then progressed to economic modelling to understand the financial sustainability of the two options.

Option 7a: A UCC located in the community that is open from 8am - 10pm, led primarily by NPs and supported by medical staff, accepts secondary triaging, provides observations, access to diagnostics and allied health, and at no cost to patient.

Option 7b: A UCC located in the community, open from 8am - 10pm, led primarily by GPs and supported by nurses, accepts secondary triaging, provides observations, access to diagnostics and allied health, and at no cost to patient.

Eligible patient population for a UCC

The literature review combined with broad-based consultation with stakeholders led to the identification of a patient population suitable for a UCC that would otherwise present to ED; including:

- Non-admitted patients
- Triage categories 3-5
- Presentations occurring between 8am and 10pm.

Activity has been modelled based on ED presentation data by Urgency Related Groups (URGs). A detailed list of in-scope URGs can be found in Appendix B.

Financial modelling

Cost-benefit analysis of option 7a and 7b has been carried out to determine the net present value (NPV) and total cost of ownership (TCO) for each UCC over a 10 year period; with the UCC opening in FY20/21.

The scope for this engagement included the financial modelling of two options; these options being 7a and 7b. Therefore, to provide detailed analysis of available funding options relating to accurate activity data; option 7a was modelled on activity data for Hobart and option 7b was modelled on activity data for Launceston. Either option is applicable for either location, provided the activity data is modelled to match that location. For the purpose of this report option 7a related to the location of Hobart and option 7b relates to the location of Launceston.

For the purpose of this report; block funding is used to describe the funding requirements to support the ongoing operational functions of a UCC.

Executive Summary (3)

Option 7a Hobart

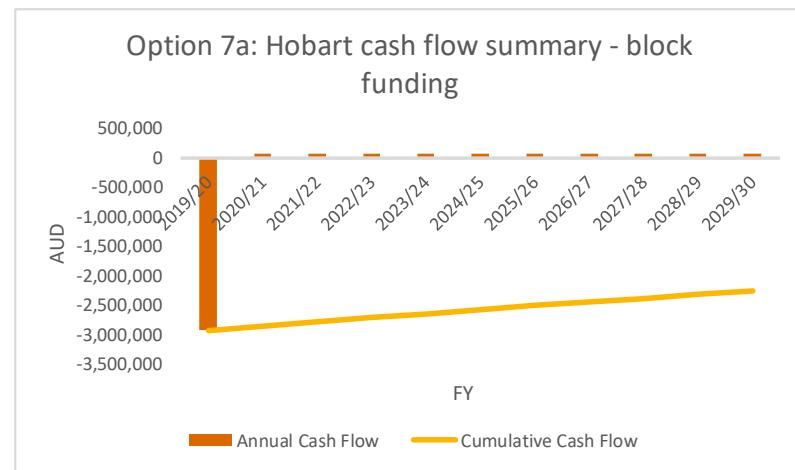
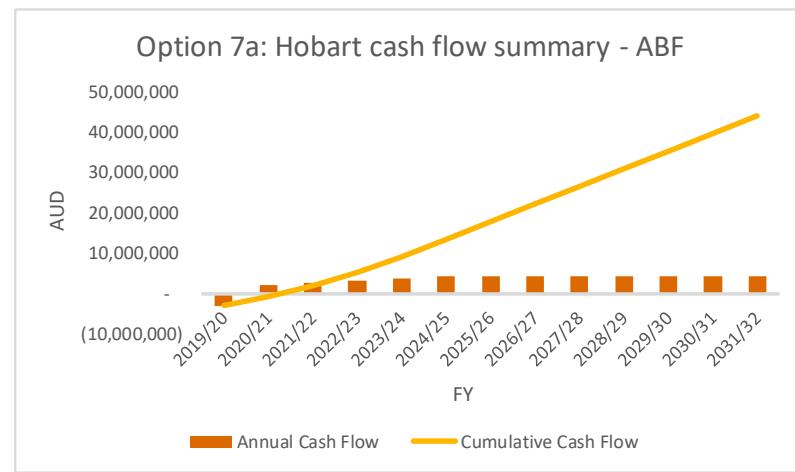
Financial modelling has been carried out for the Hobart UCC on both an activity based funding (URG) and block funding arrangement.

Operational costs and activity levels have been projected based on RHH ED activity and financial data. Under the Independent Hospital Pricing Authority (IHPA) pricing framework, a UCC is not classified as an ED and therefore would not be eligible for ABF (URG) funding; however, these two funding options have been used to identify the state funding required for a UCC in Hobart to be feasible.

Projections for the eligible Royal Hobart Hospital (RHH) ED activity by URG that could be managed in a UCC in Hobart reaches a peak of 25,000 over 10 years. This is comprised of 18 per cent category 3, 57 per cent category 4 and 24 per cent category 5 patients. These eligible activity projections incorporate a 50 per cent deflation to category 3 activity.

An estimated capital investment of \$3.2m will be required in FY19/20. This relates to infrastructure costs and construction to establish a UCC. The remaining costs relate to ongoing operational costs; estimated to be an average of \$5.2m per year; of which \$2.7m is labour and \$2.4m is non-labour. The operating expenditure to maintain the Hobart UCC over a 10 year period is \$51.2m; this includes both labour and non-labour costs. The labour costs for Hobart are lower than for the Launceston UCC due to the workforce being led by nurse practitioners, supported by clinical oversight from general practitioners.

The estimated state funding contribution for the ABF (URG) UCC model is \$101.6m with a 10 year NPV of \$35.3m. The state contribution for the block funded UCC model is \$51.2m with a negative NPV of \$2.3m. This demonstrates a surplus of funding if a UCC is funded through ABF (URG) and a deficit if funded to solely to cover the ongoing operational costs due to the initial capital investment. The estimated funding required from the state to achieve an NPV of zero is \$53.5m.



Executive Summary (4)

Option 7b Launceston

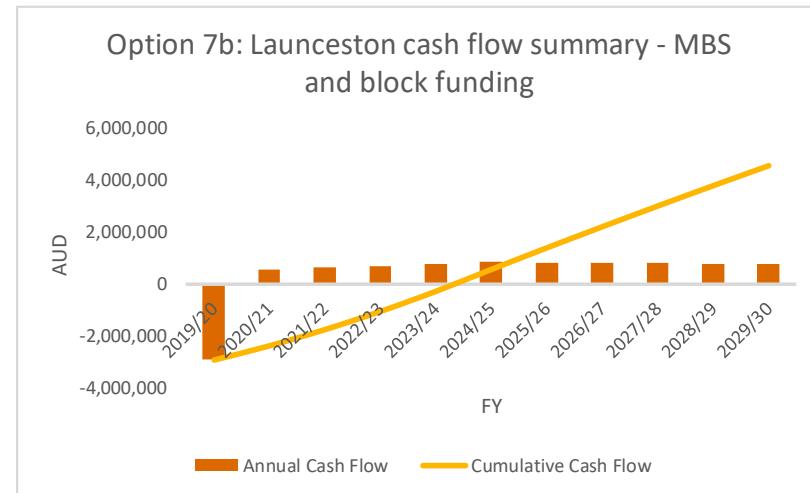
Financial modelling has been carried out for the Launceston UCC using block funding to support the ongoing operational expenditure in addition to Medicare Benefits Schedule (MBS) funding. Operational costs and activity levels have been projected based on LGH ED activity and financial data.

Projections for the eligible existing ED activity by URG that could be managed in a UCC in Launceston reaches a peak of 17,347 over 10 years. This is comprised of 18 per cent category 3, 65 per cent category 4 and 17 per cent category 5 patients; this includes a 50 per cent discount that has been applied to category 3 activity.

A capital investment of \$3.2m will be required in FY19/20. This relates to infrastructure costs, civil works and construction to establish a UCC. The remaining costs relate to ongoing operational costs; estimated to be an average of \$4.2m per year; of which \$2.5m per year represents labour costs and \$1.6m represents non-labour costs.

The operating expenditure to maintain the Launceston UCC over a 10 year period is \$42m; this includes both labour and non-labour costs. The labour costs for option 7a in Hobart are lower than 7b in Launceston, due to the Hobart workforce being led by nurse practitioners and supported by general practitioners, whilst the Launceston workforce is led by general practitioners and supported by nursing staff.

The state funding contribution through block funding is \$42m with a 10 year NPV of \$4.6m and a breakeven point of 5 years. The federal contribution through MBS is \$9.5m over 10 years.



Benefits

Expected benefits introduced through a UCC are broadly grouped into direct financial, safety and quality and service improvement; these benefits apply to both option 7a in Hobart and 7b in Launceston. The quantifiable measure of reduction in 'did not wait' ED presentations has been measured to equate to a benefit of \$443,513 for Launceston and \$883,790 for Hobart over a 10 year period. The impacts of the additional identified benefits should be considered beyond the economic impact.

Executive Summary (5)

Recommendations

Economic modelling of option 7a and 7b; combined with the insights from stakeholder consultation, the literature review and data analysis, has identified that an UCC is a feasible option. A UCC presents a significant cost saving opportunity in addition to the safety and quality, and service improvement benefits.

Location	Cost/presentation
Hobart UCC	\$204.12
Hobart ED	\$374.08
Launceston UCC	\$242.44
Launceston ED	\$366.43

A UCC has the potential to provide cost efficient and effective care for patients presenting with low acuity illnesses and injuries. A UCC would support the Department in delivering on the key priority of ‘reducing avoidable hospitalisations’²⁸; a clear example of a project that builds services that continue to improve the health, wellbeing and safety of Tasmanians.

It is estimated that the financial saving introduced through the development of a UCC outweighs the cost; with the UCC being significantly more cost efficient as a place to deliver low acuity care. The estimated cost saving of diverting low acuity presentations from ED to a UCC is \$41.5m over 10 years for Launceston and \$72.7m over 10 years in Hobart.

These financial impacts are stated at full realisation over 10 years; provided activity and the associated funding is redistributed to follow demand. This may require initial hump investment in the UCC whilst maintaining current funding in ED. Over time the redistribution of demand may require resource redistribution from elsewhere in the health budget, and/or a flattening of the ED funding growth compared to historic and projected growth rates and thus a realisation of this cost saving.

Preferred option; option 7b

The estimated block funding, and therefore state funding, required for option 7b is less than option 7a. However, when this is standardised for the number of presentations, the state funding required per presentation is greater for option 7b than option 7a. This is largely due to the increased labour costs of option 7b. The additional revenue accessed through the Medicare Benefits Schedule partly offsets these increased costs and option 7b is also amenable to a public private partnership. In addition, option 7b, with a GP-led workforce, is more likely to be able to cater for the health needs of UCC patients due to GPs’ scope of practice.

Conversely, based on stakeholder feedback, the NP-led Option 7a has the potential to introduce challenges around scope of practice. Feedback from external stakeholders of long established UCCs has identified that the acuity of presentations to a UCC has the tendency to increase over time as the model is increasingly understood and accepted. A nurse-led model, option 7a, has the potential to introduce challenges around managing high acuity presentations in the interim period before transfer to the ED. There may also be additional challenges introduced through the availability of a nurse practitioner workforce in Tasmania.

Executive Summary (6)

Next steps

This work on Urgent Care Centres will be an important initial component of future scoping work on primary care services and their integration within the Tasmanian health system. The introduction of a new health service can pose the risk of duplicating existing services, and thereby reducing value for money. It will therefore be important to give detailed consideration to the existing suite of services that provide care for this cohort of patients. Such consideration should include analysis of service scope, utilisation and outcomes, with the aim of optimising public spend.

Whilst this assessment has shown that a UCC within Tasmania could be feasible, the preferred option (7b) is characterised by a business model that may be best delivered by a GP co-operative or primary care provider that is able to successfully operate the service within an integrated Tasmanian health system.

In order for the concept to progress further, the following next steps are recommended to the Department for option 7b; this is assuming that the required government approvals to proceed are obtained as and when required:

1. Conduct further analysis for option 7b for consideration of a UCC of this service model in Hobart, using activity projections for Hobart, in addition to the existing economic analysis carried out for option 7b in Launceston
2. Conduct further consultation for option 7b, including consultation with consumers and consumer representatives, and broader consultation with clinicians.
3. Conduct analysis to determine a suitable funding source for a UCC:

Next steps (continued)

- a. Conduct further detailed design of the UCC model of care to inform an analysis of synergies with existing and emerging 'hospital avoidance' and primary healthcare services
 - b. Map community services - assess outcomes and value for money
 - c. Seek any federal funding approvals that may be available to access federal funding
 - d. Investigate possibility of funding arrangements outside the public health system, including but not limited to cooperative funding arrangements, private or not-for-profit enterprise.
4. Prepare a detailed business case, including funding modelling, broad consultation and early market engagement for option 7b. Early market engagement should aim to determine the availability of primary care providers with the capability and capacity to provide the UCC model under an outsourced or public-private partnership arrangement
 5. Prepare required funding submissions for state and/or Commonwealth funding allocation(s)
 6. Obtain funding approvals
 7. Conduct further detailed model of care design to finalise requirements for:
 - a. Clinical governance
 - b. Clinical protocols and transfer pathways (in and out of the UCC)
 - c. Workforce
 - d. In-scope patients / conditions / services
 - e. Equipment and costings
 - f. Location and fit out
 - g. Information sharing protocols.

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Introduction

Background to the feasibility assessment

Commissioning a feasibility assessment into Urgent Care Centres in the greater Hobart and Launceston areas was a specific commitment in the government's 2018 election platform to continue investing in *Health, Education and Tasmanians in need*.

In July 2014, the newly appointed Tasmanian Health Minister announced a range of reforms to the Tasmanian health system as a part of the government's *One State, One Health System, Better Outcomes* strategy. An issues paper was subsequently released in September 2014 by the Department to commence community and clinical conversation about the challenges facing the health system, and how to provide clinical services in the face of those challenges.¹ Relevant to this study, the paper recommended that alternatives to provision of care in ED's be considered as an approach to improve Tasmania's health system; for example, general practice and other primary care services.

A key component of the reforms included the development of a white paper: *Delivering Safe and Sustainable Clinical Services*, released in July 2015.² Within the paper, the government outlined their vision for Tasmania to be the healthiest population in Australia by 2025, whilst acknowledging that "Tasmania's health system is broken and needs to change".

Since the release of the white paper, and the amalgamation of the three Tasmanian Health Organisations (THOs) into a single Tasmanian Health Service (the THS), a number of initiatives have been implemented by the Department and THS to face the challenges as outlined in the issues paper, including:³

- increased health budget by \$1.3 billion
- provided 120 additional beds and treatment recliners at Royal Hobart Hospital (RHH)
- increased frontline staffing in THS by 300 FTE
- initiatives to reduce ambulance ramping
- commenced redevelopment of RHH
- introduced the Community Rapid Response Service (ComRRS).

In continuing the government's commitment to health, a further \$757m of funding for the health system was pledged by the government at the 2018 election.⁴

Whilst the election commitment was high-level, the assessment was to consider similar UCC models that are operating interstate and overseas, where specialist GPs are supported by hospital specialists to provide care in the community, taking pressure off ED and enabling care to be delivered quicker and closer to where individuals live.⁵

In Hobart, the feasibility assessment was to consider possible integration with existing infrastructure in Glenorchy and Kingston. In particular, the Glenorchy Health Centre which opened in February 2018 and services the North Hobart region, and the new Kingston Health Centre set for completion in January 2019 and occupation in March 2019. Additionally, the assessment was to consider how a UCC could work with ComRRS.

In delivering on the government's *Plan for Better Health Care* as outlined at the election, the Planning, Purchasing and Performance division within the Tasmanian Department of Health (the Department) engaged PricewaterhouseCoopers Consulting (Australia) Pty Limited (PwC) in October 2018 to conduct the feasibility assessment.

Scope and approach

This feasibility assessment included the identification of six UCC models in the literature, and the subsequent financial modelling of two UCC options.

Approach

As per the letter of engagement, PwC were engaged to:

1. Identify the barriers and enablers to establishing UCCs in Tasmania.
2. Identify potential service and funding models for UCCs in Tasmania.
3. Identify the impacts of UCCs on other primary and community care-based services in Tasmania.
4. Investigate the suitability of UCC locations in Hobart and Launceston.

In order to do this, PwC's approach involved:

1. Options development scoping: Having regard to existing DoH research on walk-in-centres, PwC conducted a desktop review of six UCC models and assessed their clinical implications, commercial viability and ease of implementation against an assessment matrix developed in conjunction with the Department.
2. Feasibility testing: PwC conducted a workshop with the Department and other selected stakeholders to test the feasibility of implementing the six UCC options in Hobart and Launceston as identified in the literature review, and developed two new UCC models.
3. Cost analysis: Having regard to UCC models 7a and 7b developed by workshop participants, financial modelling of the two models was conducted, including consideration of transition costs and requirements, ongoing operational cost, revenue and cost recovery.

Scope

The scope of the feasibility assessment was limited to:

- A literature review of six alternative UCC models.
- The financial evaluation of two options for a UCC in either Launceston or Hobart.
- Individual and group consultation with a range of key stakeholders (see *Stakeholders consulted: page 18* and *Appendix F Stakeholders consulted: page 111*).

Limitations

Limitations of the feasibility assessment included:

- Options 7a and 7b were co-designed during the workshop and subsequently endorsed for financial modelling, which limited the service delivery model design to the workshop output.
- The scope of this feasibility assessment was to evaluate the financial sustainability on two options. This limited the activity modelling of each service model to one location; being 7a in Hobart and 7b in Launceston.

The opportunity

Community need and drivers for change

Compared to other Australian states and territories; in general, Tasmania's population has a lower socioeconomic status, which contribute to Tasmania having relatively high burden of disease and disability.⁶ Whilst the health of Tasmanians is generally good and improving, there are challenges facing the Tasmanian health care system that are placing an unsustainable strain on hospitals and other publicly funded services.⁷

ED demand exceeding supply

Demand for ED services is growing at a rate significantly higher than population growth. The age distribution of these patients is skewed towards older aged groups and over 50 per cent of presentations are triaged as non-acute.⁸ As a consequence, the demand may be impacting aspects of care provided in the ED such as timeliness, staff workload and patient outcomes.

Increasing use of ambulance services

Over the past seven years, the utilisation of ambulance services has grown 14 times faster than Tasmania's population. With over 27 per cent of ED patients arriving by ambulance, above the national average, and 18 per cent of these avoidable, this unconstrained growth is continuing to be a significant driver of increased costs.⁹

Access to after-hours primary care is limited

Whilst utilisation of Healthdirect and GP Assist remains relatively high, after-hours services are variable and may not provide best value for money to patients and/or funders. There is a lack of regular after-hours bulk-billing GP services in some parts of the state, which may drive a portion of the low-acuity ED presentations. This complex and fragmented service landscape means patients have difficulty navigating the services available in the after-hours space. This may result in patients choosing to seek care in emergency departments as it offers a 'one-stop-shop'; however, for low acuity patients the ED may not be the most appropriate setting.

Unsustainable ED wait times

Whilst ED wait times have gradually reduced across Tasmania, average wait times for treatment in ED are still among the longest in Australia. Whilst the introduction of more hospital beds and Health Centres may alleviate future growth, the current demand and impact on wait times creates unsustainable pressures on budgets, infrastructure and staff.¹⁰

Tasmania's population demographics

Exacerbating these issues is Tasmania's relatively greater concentrations of economic and social disadvantage, with 31 per cent of Tasmanians in the most disadvantaged socioeconomic status quantile, and a further 23 per cent in the second-most disadvantaged.¹¹ Low propensity to spend, low health literacy and an inability to take time off work during the day may contribute to the increasing preventable ED presentations, particularly after-hours.

Whilst the Government has implemented a number of initiatives to service the intermediate space between acute and community care, there remains an existing gap in services; that being, an appropriate alternative to the emergency department that is readily accessible both in day-time and afterhours for people requiring intermediate clinical care who would otherwise present to the ED.

Guiding principles for a UCC

A review of the literature revealed that there was no one definition of a UCC that is easily transferable to the Australian context.

Therefore, a set of guiding principles for UCC design were developed through consultation with key stakeholders. Our understanding of what a contemporary UCC incorporates, and what a UCC may look like in Australia were aided by standards developed by the *Royal New Zealand College of Urgent Care* (RNZCUC) for community-based urgent care clinics in New Zealand.¹²

To ensure that any UCC that may be developed is capable of addressing the community needs and drivers specific to the Tasmanian context, guiding principles have been defined as core or desirable based on critical success factors identified throughout stakeholder consultation.

Principle #	Description	Core	Desirable
1	Episodic care	X	
2	Intermediate care (between primary and hospital level care)	X	
3	No appointment system		X
4	Diagnostic services (pathology, imaging)	X	
5	Extended hours		X
6	No out of pocket cost to patient	X	

These principles were to underpin and be considered throughout the feasibility assessment conducted by the PwC team. Conversely, a set of principles were developed to determine what would be out of scope of a UCC in Tasmania, including:

- The UCC would not be an emergency trauma centre.
- The UCC would not be a satellite ED.
- The UCC would not be a cost-alternative to presenting to primary care services.
- The UCC would not be an integrated care service for chronic disease.

Alignment to strategic priorities

Based on the priorities and objectives as outlined in the Department's *2016-18 Corporate plan*,¹³ a UCC designed on the established guiding principles would be strategically aligned to the DoH's priorities and objectives, and enable the Government to deliver on its health objectives as outlined in its *2018 First Year Agenda: Building your future*.¹⁴ Strategic alignment is mapped in the following table:

DoH strategic priority	Alignment
1. Healthy and safe Tasmanians	A UCC will provide safe and effective care for low acuity, urgent conditions which enables the Department to deliver on a key priority of ' <i>reducing avoidable hospitalisations</i> '; a clear example of a key strategic project that builds services that continue to improve the health, wellbeing and safety of Tasmanians.
2. Well-governed systems	Any UCC that is deemed to be feasible must be subject to a robust clinical governance model to enable the effective implementation of clinical pathways across multiple health systems, including GPs, ambulance, ED and ComRRS. This forms part of the Departments role as system manager in demonstrating to Tasmanians that their health system is effectively managed.
3. Integrated services	Implementation of a UCC provides the opportunity to redesign this space to ensure integration with primary care services and tertiary care centres (both private and public). This will allow the Department and the government to continue to complete the <i>One State</i> health system reforms, and deliver joined-up service systems that meet the needs of the Tasmanian community needs and drivers.
4. Evidence-based services	The establishment of a UCC, if deemed feasible, will be consistent with the evidence base as described in the literature. Through completion of the literature review and workshop, the Department's nominated stakeholders were enabled to co-design a service, drawing upon strengths of other evidence-based models.
5. Engaged workforce	It is expected that the introduction of a UCC will enhance workforce satisfaction through improved capability and enhanced workforce multidisciplinary integration, increasing the capacity to deliver efficient, safe and high quality health services. In particular, the development of the nurse practitioner role in Hobart will enable the DoH to meet the current and future service needs to address the identified Tasmanian community needs and drivers.

Identifying UCC options

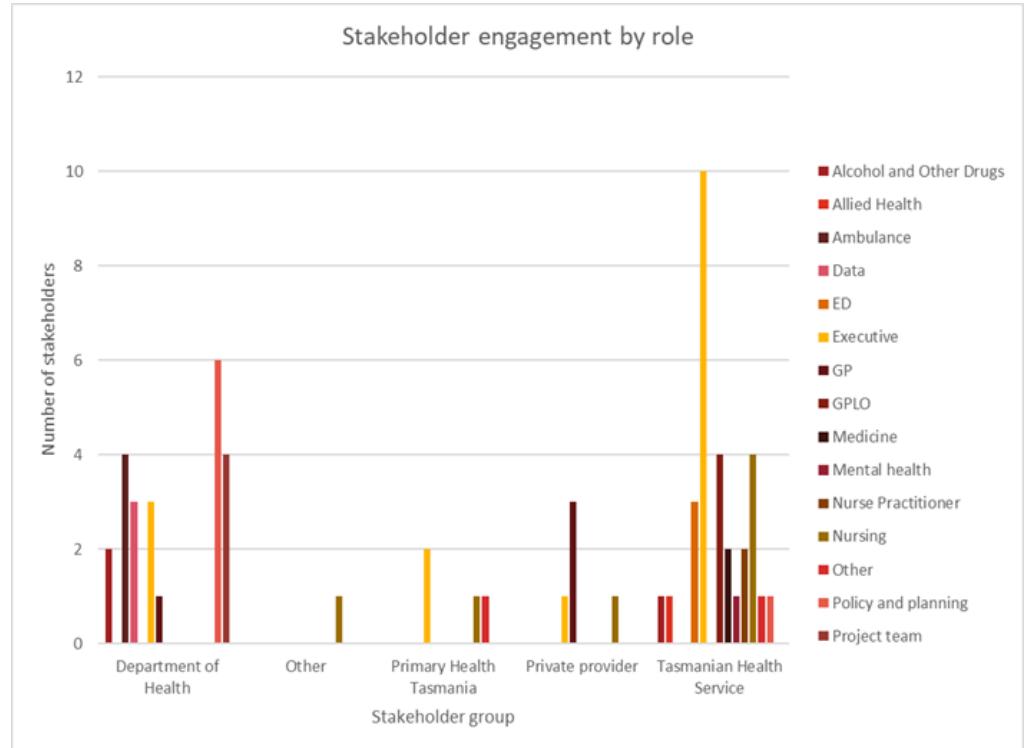
Stakeholder engagement

Broad consultation was conducted with over 40 individuals throughout the 9 weeks to assist our understanding of the key drivers and success factors for the development of a UCC in Tasmania, and to bring awareness and understanding of the purpose of UCC functionality to key stakeholder groups.

PwC consulted with key stakeholders representing various parts of the Tasmanian health system as requested by the Department. This included:

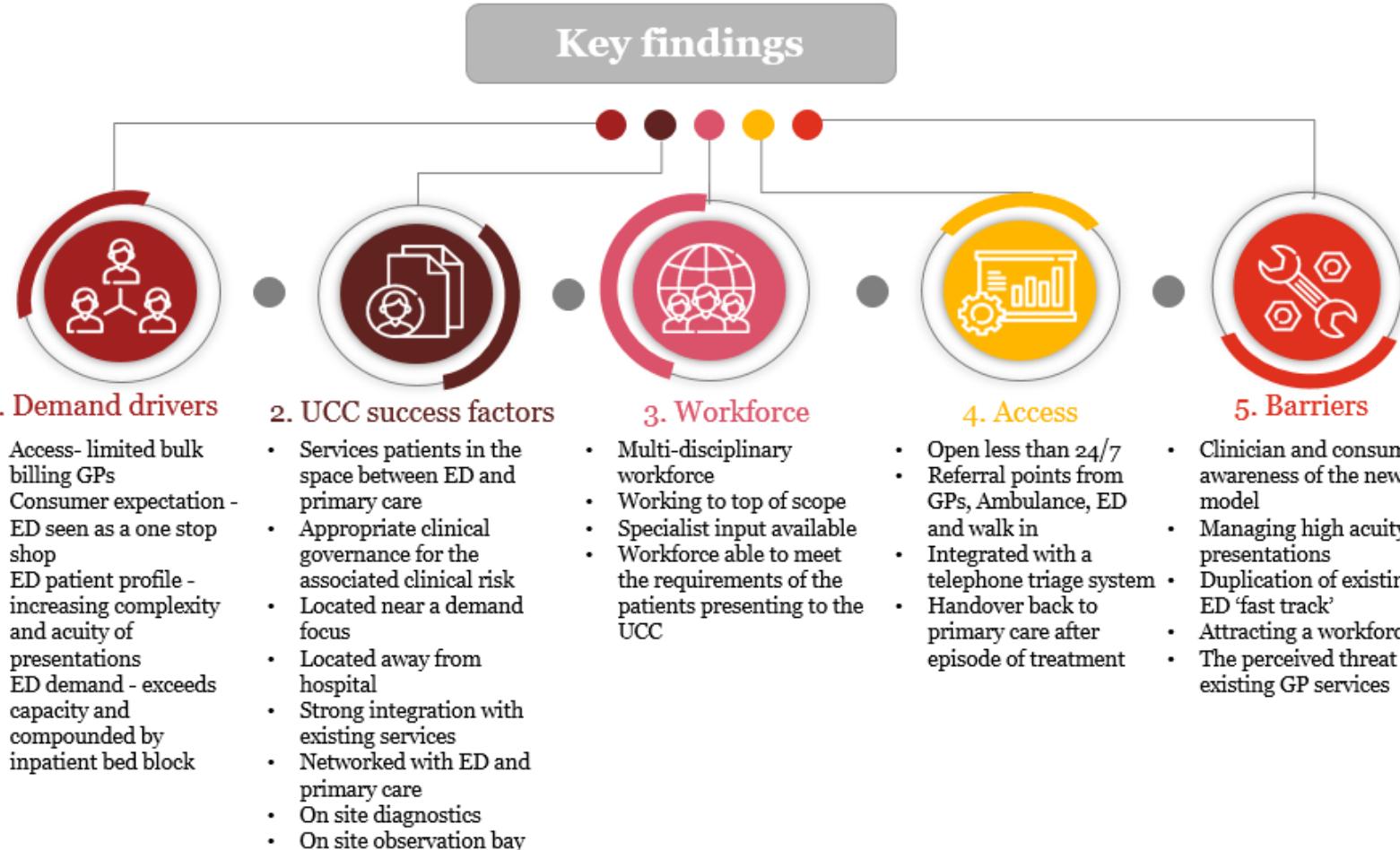
- A reference group meeting (12 stakeholders)
- A group interview with 9 stakeholders from north Tasmania (videoconference)
- A group interview with 4 stakeholders from south Tasmania (teleconference)
- Eleven one-on-one interviews (face-to-face and teleconference)

For a full list of stakeholders consulted with as part of the engagement, see Appendix F.



Key findings from stakeholder consultation

Despite the diversity of stakeholders consulted, a number of key findings emerged from the consultation process; including individual and group consultations, feedback from the workshop, and ongoing input from the Steering Committee and Reference Group, through both verbal and written submissions.



Approach to the literature review

The purpose of performing a rapid desktop review of publicly available literature was to review the implementation of UCCs in other jurisdictions, identify relevant potential operating models and assess evidence for their impact and efficiency.

Approach

1. The scope of research was defined through a research brief, determining the guidelines of the research and establishing what information and data was important to capture in the report.
2. An initial broad desktop scan was conducted and involved a search of reports (policy documents, service plans and strategic plans) by government and government-funded bodies, white papers, project/program evaluation reports, peer-reviewed academic literature and internal reports provided by the Department and other stakeholders within the Tasmanian health system.
3. Initial UCC models were identified for review, with models excluded if it did not fall within the definition developed of a UCC, it had poor clinical outcomes, there was not enough information about the UCC model in the public domain, or the UCC model did not relate to the Tasmanian health context.
4. PwC spoke to an executive of a well-established UCC in Auckland to test our understanding of the drivers and challenges of implementing a UCC in the Australasian context.
5. The final step in this review was to synthesise the information collected for the six UCC models selected for inclusion in the desktop review, and present as against the key focus areas - clinical implications, commercial viability and ease of implementation.

The 6 UCC models

Due to the variability in design of the UCC options, the six UCC models were categorised into two main categories, based on the location of the models described in the literature:

1) UCC options that are co-located with a hospital

	Option 1: An Urgent Care Centre located adjacent to a hospital with an Emergency Department Name: Nelson Medical & Injury Centre Location: Nelson Hospital City: Nelson, NZ Date of establishment: 2011		Option 2: An Urgent Care Centre co-located with an Emergency Department Name: Ealing Hospital UCC Location: Ealing Hospital City: London, England Date of establishment: 2011		Option 3: An Urgent Care Centre located within a hospital with no Emergency Department Name: Mona Vale Hospital UCC Location: Mona Vale Hospital City: Sydney, AUS Date of establishment: 2018
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2) UCC options that are co-located with a hospital

	Option 4: An Urgent Care Centre located in a primary health precinct Name: Widnes UCC Location: Widnes Healthcare Resource Centre City: Widnes, England Date of establishment: 2015		Option 5: An Urgent Care Centre located in the community (suburbia) Name: St John Ambulance WA UCC Location: 4 x Locations City: Perth, AUS Date of establishment: 2016		Option 6: An Urgent Care Centre located in the CBD Name: Pegasus 24 Hour Surgery Location: CBD City: Christchurch, NZ Date of establishment: 1987
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Key findings from the literature review

The 6 UCC models identified from the literature helped to inform the principles of a UCC, the design of a UCC and the success factors required for a UCC to provide a valuable service, with the diagram below showcasing the evidence base used for the UCCs.

Capability of the UCCs

Whilst the capabilities of the UCCs identified in the literature were broadly similar, a number of individual variations were used to inform and guide the UCC design process.

The availability of a multi-disciplinary workforce model that can meet the needs of the patient cohort was evident. Particular to the NZ models was the strong use of registered nurses and nurse practitioners, who were enabled to work to an extended scope of practice (ie nurse initiated x-rays). However, these were not necessarily nurse-led models, which were evidenced in the English UCCs. In the nurse-led model, nurses were supported by GPs for only certain hours of the day (3 GP shifts per day, GP on site 12-6pm daily). What was also evidenced in the literature was that; should a nurse-led model be implemented, there is a need to ensure the balance of nursing staff to acuity of patient conditions does not exceed the capability required to meet the needs of patients, and ensure they work to full scope of practice. In GP models, GPs were either full-time salaried UCC employees, or worked at the UCC on a rotating roster.

On-site diagnostics that are easily accessible to staff was also crucial. At a minimum, all UCCs in the community had point of care testing and onsite x-ray, with one NZ model having a dedicated fracture clinic and observation unit. Additionally, all UCCs located in the community had interoperability with hospital electronic medical records (EMR), with some UCCs using the same EMR system, meaning results could be, and were, forwarded to the patients GP. This was supported by strong clinical pathways, with patients always referred back to their GP for ongoing care.

Integration of the UCCs

Whilst the integration of the UCCs identified in the literature were broadly similar, a number of individual variations were used to inform and guide the UCC design process.

What was evidence across all UCCs was that the service was complementary to existing community and hospital services and promotes episodic care, ensuring minimal impact on the role of the GP. This strong focus on integration has been reported as having positive outcomes, with one of the Australian UCCs reporting that GPs in the vicinity have gradually become more confident in the competition aspect of the model, and have subsequently increased their own referral rates to the UCC for particular episodes of care.

Secondary triaging was evident across all UCCs, but utilisation of the service differed (as little as 0.5 per cent in one English UCC). Building rapport and trust with Paramedic staff was described in the literature as the key enabler for the uptake of secondary-triaging in NZ, with one Australian UCC employing extended-paramedics to help facilitate secondary-triaging. Similarly, onward referrals for patients requiring treatment at the ED were supported by strong clinical pathways, but were able to be appropriately cared for within the UCC due to the multidisciplinary workforce and extended scope of practice.

The public awareness of the service and the services provided was consistently raised as a key driver for success, with one English UCC partnering with the local rugby team to raise awareness; the result of which was an increased uptake of the UCC directly after the launch of the campaign.

Eligible UCC population and data limitations

The literature review and data analysis informed the eligible UCC patient population.

Eligible UCC activity

Data on ED presentations by URG was provided by the Department and was analysed to understand the volume of activity that could be eligible for a UCC. This analysis was informed by:

- the evidence base from the literature review; which identified UCC activity as low acuity, urgent, minor illnesses and injuries
- stakeholder consultation; which identified that non-admitted, category 3-5 patients would be suitable (with the exclusion of mental health, drugs and alcohol).

A detailed list of URGs included is detailed in the appendix.

Data analysis

Guided by the above inputs, data analysis was carried out to understand the:

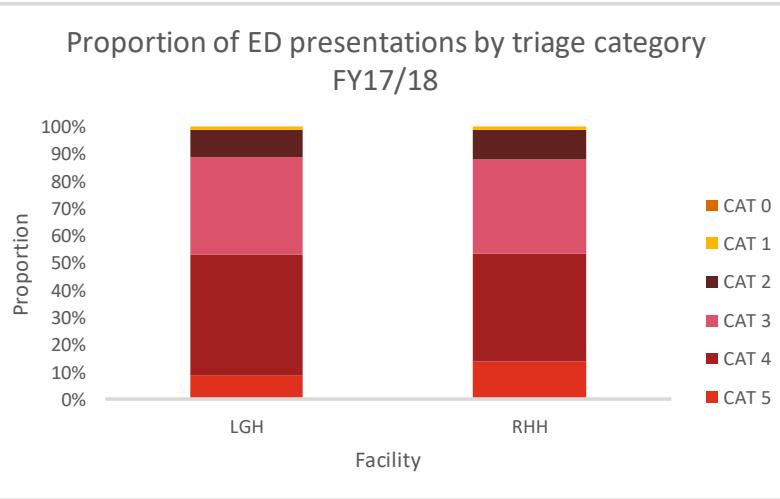
- proportion and number of triage category presentations by facility for 2016-17
- proportion and number of admitted vs non-admitted presentations by facility for 2016-17
- break down of admission status by triage category, year, and facility
- distribution of ED arrival times by time of day and day of week.

Several limitation applied to the analysis that was able be conducted; these are detailed in the adjacent table.

Limitation	Explanation
Raw data	<p>This engagement did not include an audit of the accuracy of the raw data provided. It is assumed that:</p> <ul style="list-style-type: none">• all data provided related to emergency department services only• all raw data provided was complete and correct• all analysis completed by the Department, including cost per presentation and activity projections; was complete and correct• Data sets are consistent across facilities (eg costing methodology, triaging approach, URG assignments etc).
URG data	<p>Non-admitted activity is limited to URG classification:</p> <ul style="list-style-type: none">• URG codes can encapsulate large cohorts of patients• activity that does not align to a specific URG has been grouped into 'other diagnostic block'• assumptions around the URG codes that can be seen in an Urgent Care setting have been made; URGs included in the analysis are detailed in the appendix.
Data gaps	<ul style="list-style-type: none">• Data requested relating to diagnostics used per presentation was not provided• a proportion of presentations by URG did not have an associated SA2 code; this may have impacted the associated demand distribution for the location analysis.
Cost data	<ul style="list-style-type: none">• Cost per presentation to ED for RHH and LGH was analysed and provided by the Department. This has limited analysis of the break down of the cost.

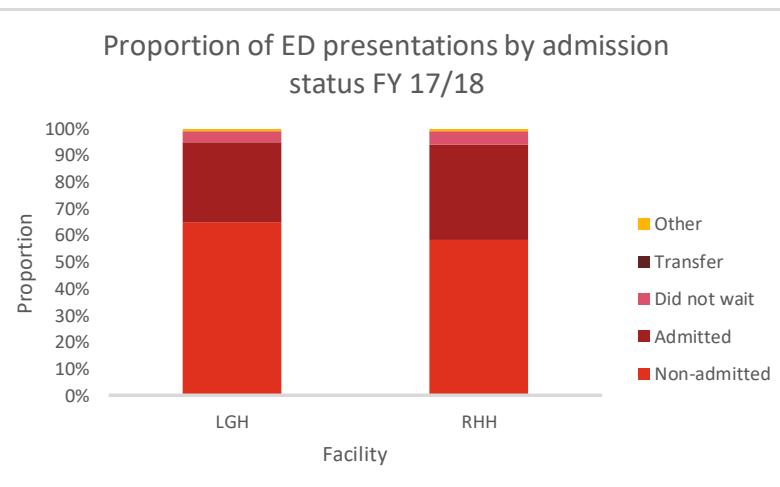
Presentations to ED by triage category and admission status

The majority of presentations to LGH and RHH EDs are triaged as category 3-5 presentations.



Key Insights

- Over 50% of ED presentations are triaged as category 4 or 5
- Less than 10% of ED presentations are triaged as category 1 or 2
- There is no significant difference in the proportion of category 4 and 5 presentations across the different facilities.



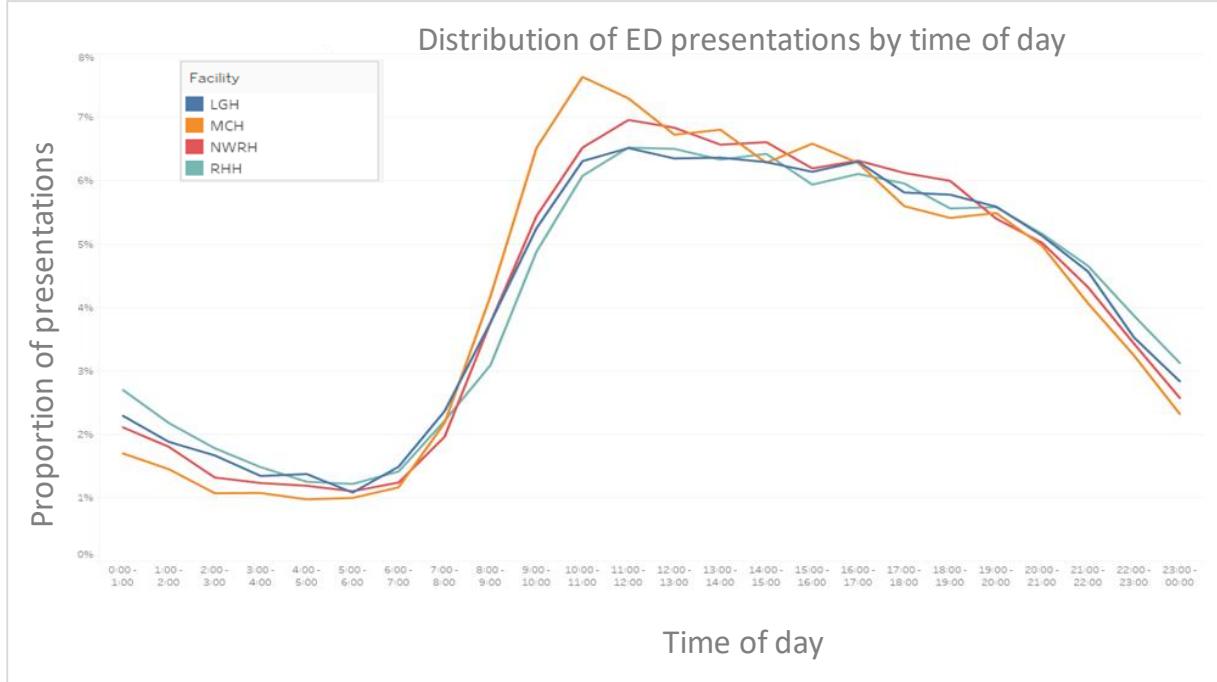
Key Insights

- Over 50% of patients were non-admitted across all facilities
- Up to 10% of patients did not wait across all facilities; with the greatest proportion of did not wait occurring in RHH
- Up to 40% of patients were admitted in RHH and LGH

Note: A 50% deflation has been applied to CAT 3 eligible URGs to account for patient who may be transferred directly by ambulance to ED due to the perceived acuity of their presentation

ED presentations by time of day

Analysis of presentation time indicates a limited value in a 24x7 model for the patient cohort identified.



Key Insights

- The majority of patients arrive between 8am and 10pm, across all facilities
- This analysis indicates that the peak time for a UCC to be operating would be between 8am and 10pm.
- Outside of these times, patients are still able to access care at the ED.

Note:

- Analysis of presentations by day of week was carried out and showed no significant variation between days.
- In addition to analysis showing limited demand between the hours of 10pm – 8am, consultation with well-established UCC operators in New Zealand raised several issues in operating as a 24/7 service; including high running costs, workforce availability, accreditation and the potential for staff safety issues.

Refining options

The workshop

To refine options, two parallel workshops were carried out in Hobart and Launceston, the result of which was the co-design of options 7a and 7b UCC models which are uniquely applicable to the Tasmanian health service.

UCC 7a and 7b

The six UCC models through the literature review were discussed, with strengths and weaknesses of each model drawn upon to move into a co-design process.

The broad clinical, policy and financial experience of the workshop participants led to the co-design of options 7a and 7b. These models have been designed specifically for the Tasmanian healthcare service context.

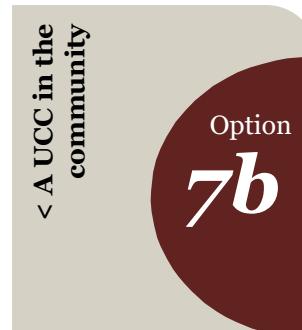
Model 7a was developed in the Hobart, where the preference was for a multi-disciplinary workforce led by nurse practitioners. Model 7b was developed in Launceston, where there was a preference for a multi-disciplinary workforce led by general practitioners.

It was agreed that model 7a and 7b would be progressed for financial modelling. Due to the requirement to model 2 options; option 7a has been modelling on activity data for Hobart, and 7b has been modelled on activity data for Launceston. Either option is applicable to Hobart or Launceston; provided the activity data is adjusted for the location. For the purpose of this report, options are referred to as option 7a: Hobart and option 7b: Launceston.



Hobart

A UCC located in the community that is open from 8am - 10pm, led primarily by nurse practitioners and supported by medical staff, accepts secondary triaging, provides observations, access to diagnostics and allied health, and at no cost to patient.



Launceston

A UCC located in the community, open from 8am - 10pm, led primarily by general practitioners and supported by nurses, accepts secondary triaging, provides observations, access to diagnostics and allied health, and at no cost to patient.



Option 7a: Hobart and 7b: Launceston

Data analysis on RHH and LGH activity data and evidence from the literature review informed the co-design of option 7a for Hobart and option 7b for Launceston.

Option 7a and 7b

Both option 7a and 7b are UCCs located in the community, away from the RHH and LGH and open between the hours of 8am and 10pm. The UCCs have a waiting room, triage desk, assessment area and observation bay, and supported by an imaging room and medication room. Due to the extended opening hours, the UCCs have on-site security personnel.

The UCCs have two, eight hour shifts per day. One registered nurse per shift is able to triage patients and has extended scope of practice to carry out limited plain film radiography. One registered nurse per shift is able to carry out observations and monitor patients in the observation bay. Treatment, including medication, can be delivered in the assessment area and observation bay.

Plain film x-ray interpretation is carried out by staff onsite, and formal reporting of images is outsourced offsite. Pathology investigations are available through on site point of care testing, with formal pathology carried out off-site if required (based on evidence in the literature and stakeholder consultation, formal pathology should be minimal).

The administrative officer will also act as patient advocate, connecting patients who do not have a regular GP to a local practitioner. Documentation will be provided to the patients normal GP once the patient has been discharge to ensure integration with existing primary care services.

There is no out of pocket cost for the patient.

The importance of service integration

A number of critical success factors for both UCC options were identified at the co-design workshop and through consultation. Success factors include the availability of an appropriately skilled workforce, defined clinical pathways and specialist support from ED as required.

Given that a UCC would service clinical needs in the intermediate space between traditional primary and acute care, both UCC options will require a multidisciplinary workforce that is capable of working within an integrated service landscape. Whilst this will require additional training for staff working within this environment, particularly the nurse practitioner workforce, it provides an opportunity to the Tasmanian health system to provide a 'best practice' system for the training and skilling of the broader primary health care workforce (ie GPs, allied health, nursing), to work more effectively in an integrated manner.

This must further be supported by appropriate clinical pathways for patients, including for mental health presentations, given the exclusion of mental health from the clinical capability of the UCC. The decision to exclude mental health is supported by the literature and the service scope of well-established UCCs. Given that the UCC will not be able to deliver care to this patient cohort, there is the need for an appropriate clinical pathway for after-hours mental health presentations.

Furthermore, to make full use of the clinical capability of the proposed workforce in both UCC options, and for the UCC to succeed more generally, the UCC is dependent on the availability of specialist support of ED clinicians over the phone, and efficient pathways to transfer patients to ED as required.

Change management and buy in will be essential for successful implementation and sustainability of a UCC.

Option 7a: Hobart and 7b: Launceston

Whilst there are a number of similarities between the two UCC options, a number of nuances that are specific to each UCC option became evident throughout the co-design workshop.

Option 7a

The workforce is nurse-led with medical oversight by general practitioners, and supported by physiotherapists and administrative staff. The nurse practitioners have extended scope of practice in minor injuries and illnesses and are able to order imaging and prescribe within the limits of their scope.

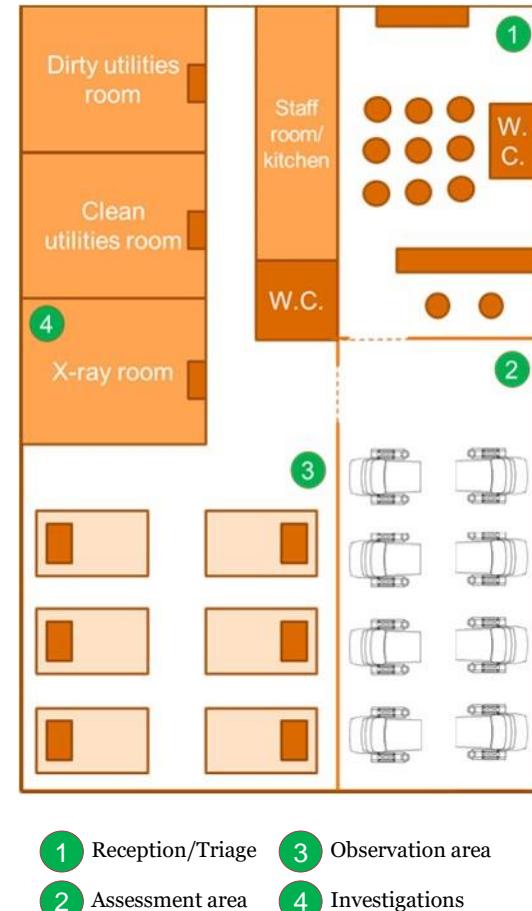
Both nurse practitioners and general practitioners will see UCC patients, and are supported by registered nurses. One registered nurse per shift is able to triage patients and has extended scope of practice to carry out limited plain film radiography. One registered nurse per shift is able to carry out observations and monitor patients in the observation bay. Plain film x-ray interpretation is carried out by nurse practitioners, and formal reporting of images is outsourced offsite.

There is no out of pocket cost for the patient, funding for this UCC is provided by state funding.

Option 7b

The workforce is led by general practitioners, with support provided by registered nurses. One registered nurse per shift is able to triage patients and has extended scope of practice to carry out limited plain film radiography. One registered nurse per shift is able to carry out observations and monitor patients in the observation bay. Plain film x-ray interpretation is carried out by general practitioners, and formal reporting of images outsourced offsite.

There is no out of pocket cost for the patient, funding for this UCC is provided by a combination of federal (Medicare Benefits Schedule) and state funding. Medicare benefit schedule (MBS) billing is accessible by the general practitioners



Note: The design concept of the diagram above is identical for model 7a and 7b, and was based on the *Australian Health Facilities Guidelines: Health Planning Units*, which provide detailed information regarding common healthcare settings, and further refined based on stakeholder consultation. The site of the UCC facility is estimated to be 442m². A detailed architectural design Final report would be required as part of a detailed business case.

Intended outcomes of a UCC

Workshop participants used their combined clinical, policy and financial knowledge and expertise to develop expected business outcomes of a Tasmanian UCC. The table below outlines the business outcomes/key performance indicators (KPI) that were initially identified, and guided ongoing development of the UCCs.

Outcome/KPI of the UCC	Description of outcome/KPI
The proportion of ED admissions out of total activity should increase	It is expected that the introduction of a UCC will divert low acuity patients away from the ED. This will mean that the ED would treat fewer patients who do not require hospital admission; therefore the proportion of ED patients who are admitted to hospital would increase.
The proportion of UCC patients who require transfer to ED should be low	It is expected that the introduction of a UCC will shift low acuity activity to the UCC. Supported by the right clinical governance and pathways, this will result in a low proportion of patients who require transfer to ED.
The proportion of UCC patients who are ‘enrolled’ with a regular GP prior to departure should be high.	Inspired by the ‘Patient Champion’ role in English UCCs and a similar focus by UCCs in NZ, patients who present at UCC without a ‘regular’ GP should be assisted to find one. Facilitating integration with existing primary health services for ongoing patient care would also encourage GPs to refer appropriate patients back to the UCC.
The patient experience should increase.	It is expected that patient experience both at the UCC and ED will improve, given the diversion of low acuity patients away from the ED, which will increase capacity and decrease the time to be seen.
The ED and UCC activity should not exceed current projections.	In providing the right care, at the right time in the right place, patients will be supported through education campaigns, clinical referrals etc to understand where to access appropriate care; implementation of a UCC should not lead to increased total ED + UCC demand (for example by competing with general practice or other community services).
The proportion of UCC return presentations should be low.	As outlined above, integration with existing primary health services is integral to the UCC. Supported by clear clinical pathways and public awareness, patients will be treated in the UCC for that particular episode and be referred back to their own GP for ongoing care (or supported to find one), ensuring limited return presentations.
The cost per episode in the UCC should be cheaper than ED.	It is expected that the cost of providing low acuity care in the UCC will be cheaper than providing that same care in the ED, given the reduced need for resourcing and an expected lower tendency to order advanced investigations.
The number of serious adverse incidents will decrease.	Although the risk of serious adverse incidents in the ED are rare (those that are considered unacceptable and eminently preventable), the risk of those occurring should be reduced when clinicians can redirect attention to high acuity patients due to the diversion of low acuity patients away from the ED.
The data from any subsequent implementation of a UCC should be published	Given the early development of UCCs in Australia, workshop agreed any benefits and outcomes of the UCC should be made publicly available for other health agencies to utilise.

Assumptions for option 7a and 7b

Several assumptions have also been made during the co-design process during the two parallel workshops; these are detailed in the table below.

Assumption	Explanation
Scope of practice	<p>It is assumed that nurse practitioners have completed formal training in urgent care and have extended scope of practice to include assessment and initiation of a treatment and management plan; including prescribing.</p> <p>Registered nurses have extended scope of practice to initiate and perform imaging for plain film radiography. This applies to registered nurses who carry a licence under the radiation Safety Act 1999 and who can use plain film diagnostic x-ray but do not have formal qualifications in diagnostic radiography.</p>
Clinical service	The clinical service has been assumed to include minor injuries and illnesses. It excludes specific chronic disease, integrated care and mental health services.
Service model	The UCC models developed have been designed for a metropolitan Tasmanian city (ie these models would not be suitable for regional and remote Tasmania)
Workforce availability	It has been assumed that both models that have been developed will have access to suitably trained staff to match their staffing profile.
Cost to patient	It is assumed that neither model will include no out of pocket cost to the patient
Funding	It is assumed that funding options will be accessible; this may include reallocation of existing budgetary funds or additional funding
Location	For modelling purposes; it is assumed that model 7a is designed for Hobart and model 7b for Launceston. This is to ensure activity projections can be modelled appropriately depending on the location of each service model. Either model is applicable to either location, however, activity will need to be adjusted to match the demand of the desired location.

Model assumptions

To complete financial modelling; several assumptions have been built into the model; general assumptions are included in the table below; a detailed list of assumptions can be found in the appendix.

Assumption	Explanation
Duration of model	The model for the feasibility study is built over 10 years; project costs are based on a working life of 10 years with an inflation rate of 1.9 per cent and discount rate of 3.7 per cent.
Model start date	The model allows 1 year for a detailed business case to be carried out and funding negotiations to occur. Construction, if required, will commence FY19/20, 6 months prior to the opening of UCC on 1 July 2020.
Currency terms	Figures included within the activity based cost and funding model are stated in 2017-18 values. This is achieved using appropriate inflation and deflation rates on the costing, funding and benefit inputs.
Inflation rate	The inflation rate of 1.9 per cent was used in this activity based funding model. This is based on a 5 year average inflation rate year on year.
Discount rate	The nominal discount rate of 3.68 per cent was used in this activity based funding model. This is based on the Queensland Treasury cost of debt, 5 year average rate for the Queensland Treasury Corporation 10 year bond.
UCC patient population	The UCC patient population includes non-admitted, CAT 3-5 presentations. A 50% discount has been applied to CAT 3 presentations.
UCC activity	Activity projections have been provided by the Department. For activity occurring in 'gap' years we have projected following a linear rate. 89 per cent of patient activity has been included; this activity presents during the UCC opening hours of 0800-2200. The redistribution of activity from ED to the UCC begins at 50 per cent in year 1 and increases to a capped maximum of 85 per cent by year 4. It is assumed these projections provided by the Department are accurate.
Capital cost	It is assumed that the capital infrastructure costs for a UCC includes both the construction and clinical infrastructure fit out. If construction is not required, the breakeven point will occur at an earlier date due to a reduction in the initial capital investment. Capital costs include consultancy and approvals; costs exclude civil works, land value, infrastructure charges.
National efficient price (NEP) indexation	Activity revenue has been indexed according to IHPA methodology with an NEP indexation of 1.6% annually. The price of an NWAU has been included as \$4,910. Any subsequent detailed business case will require detailed assessment of the Tasmanian Health Service agreement with the finance and procurement department to determine any index specifications applicable to Tasmania.
Medicare schedule items	Medicare schedule items have been indexed according to Medicare indexation rates of 1.6% annually

Financial overview option 7a

Hobart

Financial and economic summary

Financial modelling has been carried out for the Hobart UCC on both an activity based funding (URG) and block funding arrangement, with operational costs and activity levels based on RHH ED activity and financial data. Under the Independent Hospital Pricing Authority (IHPA) pricing framework, a UCC is not classified as an ED and therefore would not be eligible for ABF (URG) funding; however, these two funding options have been modelled to identify the state funding required for a UCC in Hobart to be feasible.

Assessment Criteria	Description	Block	ABF
Capital Expenditure	Total expenditure required to deliver the project	\$3.2m	\$3.2m
Operating Expenditure	Total expenditure required to maintain the service over a 10 year period	\$51.2m	\$51.2m
Total cost of ownership	The total cost of capital expenditure and the operating expenditure over 10 years.	\$54.4m	\$54.4m
Net Present Value (NPV)	The difference between the discounted streams of cash inflow (revenue and benefits) and cash outflow (costs) in today's terms. A positive NPV is considered to be a good investment as the NPV is greater than zero (i.e. the total discounted value of inflows is greater than the total discounted outflows).	\$(2.3)m	\$35.3 m
Breakeven point	The period of time taken for a project to recoup or recover the cost of the investment.	>10 yrs	1 yr
Potential cost saving*	This financial impact is stated at full realisation over 10 years; provided activity and the associated funding is redistributed to follow demand.	\$72.7m	\$72.7m

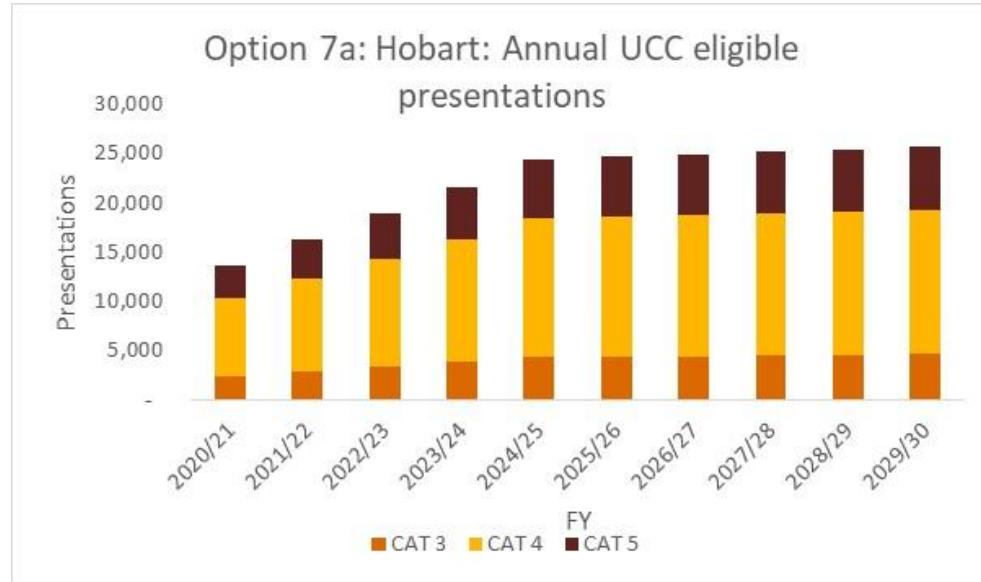
The estimated state funding contribution for the ABF (URG) UCC model is \$101.7m with a 10 year NPV of \$35.3m. The state contribution for the block funded UCC model is \$51.2m with a negative NPV of \$2.3m. This demonstrates a surplus of funding if a UCC is funded through ABF (URG) and a deficit if funded to solely to cover the ongoing operational costs due to the initial capital investment. The estimated funding required from the state to achieve an NPV of zero is \$53.5m.

Note:

- * These financial impacts are stated at full realisation over 10 years; provided activity and the associated funding is redistributed to follow demand. This may require initial hump investment in the UCC whilst maintaining current funding in ED. Over time the redistribution of demand may require resource redistribution from elsewhere in the health budget, and/or a flattening of the ED funding growth compared to historic and projected growth rates and thus a realisation of this cost saving.

Projected eligible UCC activity

The projected ED activity is based on the identified eligible patient population and projected out over a 10 year period based on activity projections provided by the department. Take up rates have been applied commencing at 50 per cent in the first year of opening and reaching a capped maximum of 85 per cent by year four.



Key insights

- On average:
 - 18% of activity is attributed to category 3
 - 57% of activity is attributed to category 4
 - 24% of activity is attributed to category 5.
- The peak volume of activity reached over the ten years is 26,160 separations per annum.

Note:

- A 50% discount has been applied to CAT 3 presentations

Proposed workforce

The table below describes the proposed workforce to deliver the UCC service for Option a: Hobart.

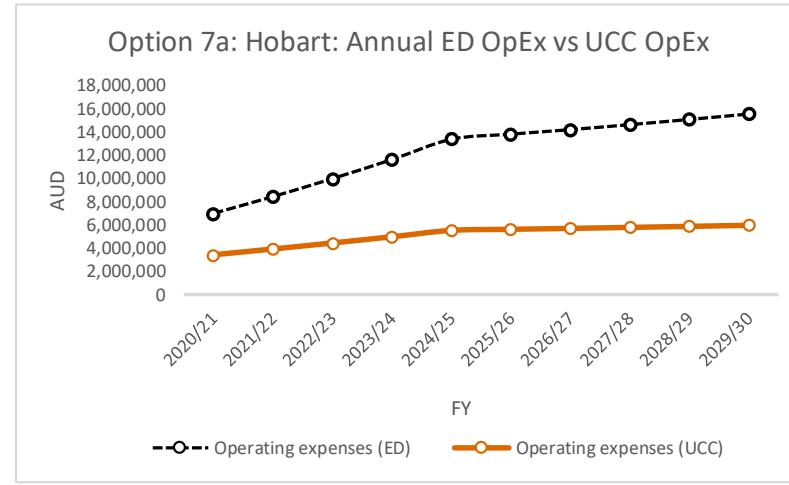
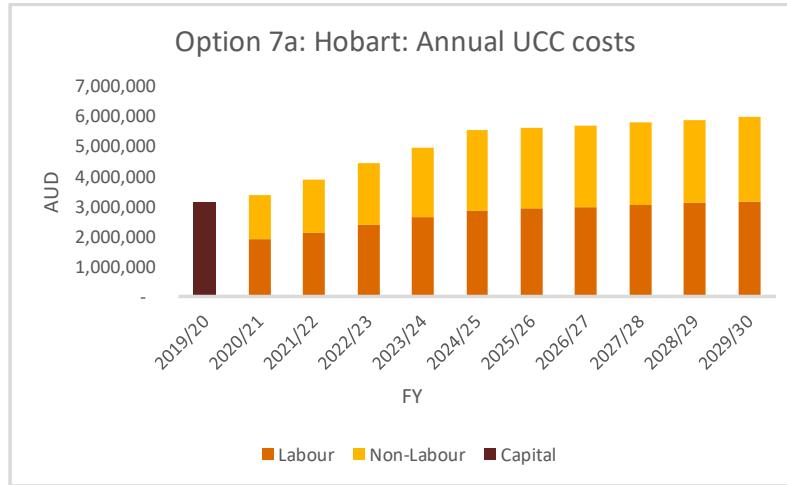
Rationale

The workforce for option 7a in Hobart has proposed based on a nurse-led model. FTE numbers for clinicians providing 1:1 care have been projected in line with the projected eligible UCC activity. The workforce has been modelled on two shifts a day, each shift being eight hours and modelled on a 38 hour working week. The minimum workforce includes a nurse practitioner for each shift, supported by one general practitioner shift per day. The registered nurses, administrative officers and security staff have been modelled to cover each shift, seven days a week. To estimate labour costs conservatively; salary rates have been calculated to equate to a middle grade level using the Department of Health salary rate for Tasmania.

Position	Level	FY 20/21	FY 21/22	FY 22/23	FY 23/24	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
General practitioner	L6	1.4	1.6	1.9	2.1	2.4	2.4	2.4	2.4	2.4	2.4
Registered nurse	Gd 5 Yr 2	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Allied health professional	L4 Yr 2	1.4	1.6	1.9	2.1	2.4	2.4	2.4	2.4	2.4	2.4
Administrative officer	AO3	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Nurse practitioner	Gd 8 L2	2.8	3.3	3.8	4.3	4.8	4.8	4.8	4.8	4.8	4.8
Security	HSO L4	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Total FTE		14	15	16	16.9	17.9	17.9	17.9	17.9	17.9	17.9
Total cost (\$m)		1.8	2.0	2.1	2.4	2.6	2.7	2.7	2.8	2.8	2.9

Financial overview

A capital investment of \$3.2m will be required in FY19/20, this relates to infrastructure costs and construction. The remaining estimated costs relate to ongoing operational costs; estimated to be an average of \$5.2m per year; of which \$2.7m per year represents labour costs and \$2.4m represents non-labour costs.



Key insights

- The annual operational cost for the UCC is less than the annual operational cost at ED to service the activity eligible for a UCC, equating to an estimated cost saving of \$72.7m over 10 years.
- The majority difference is likely due to the different labour costs relating to the UCC and ED; with the remainder difference in costs due to an anticipated reduction in use of diagnostics at the UCC compared to ED
- The average operational cost per presentation in ED is \$374 compared to \$204 in the Hobart UCC

Note:

- For modelling purposes the cost of total build of a UCC has been included (excluding the cost of purchasing land); if no construction is required, the initial capital investment is reduced by \$955,604.
- Cost data, by URG for activity eligible for a UCC was analysed and provided by the department. PwC did not analyse the raw data. This has constrained analysis of the ED costs to total operational expenditure; the contributions from labour and non-labour costs have therefore not been able to be analysed
- The average operational cost per presentation in ED is for the same category of patients identified as suitable for the UCC model of care.
- Diagnostics for the UCC have been modelled on the NHCD costs per episode for non-admitted patients; a discount to the cost per episode of 66% and 30% has been applied to pathology and imaging requirements respectively. This assumption has been verified in consultation with clinical stakeholders.
- Any realisation of this cost saving is dependant on the redistribution of activity from the ED to the UCC and the ultimate realisation of reduced demand on ED over time. This may result in an initial hump investment in the UCC whilst maintaining current funding in ED. Over time, the gradual reduction in demand in ED may result in the redistribution of resources over time, or a flattening of ED funding growth compared to historic and projected growth rates, and thus a realisation of the cost saving.

Cost summary

The table below outlines the estimated cost for Option 7a: Hobart UCC over 10 years.

Cost (\$m)	FY19/20	FY 20-30	Total
Capital			
Construction of basic build	\$955,604		
Clinical infrastructure refurbishment	\$990,964		
Equipment	\$816,000		
Total (including 20% contingency)	\$3.2m		\$3.2m
Operating costs			
Resourcing		\$27.3m	
Non-labour		\$23.9m	
Total (including 10% contingency)		\$51.2m	\$51.2m
Total cost of ownership			\$54.4m

Note:

- A detailed total cost of ownership can be found in the appendix.
- Construction basic build costs have been based on cost per m² from previous PwC analysis for the construction of a community, sub-acute health centre.
- Infrastructure costs have been based on cost per m² from previous PwC analysis for clinical infrastructure for a mid-cost refurbishment.
- Any subsequent business case should look to include consultation with a quantity surveyor or health infrastructure specialist.

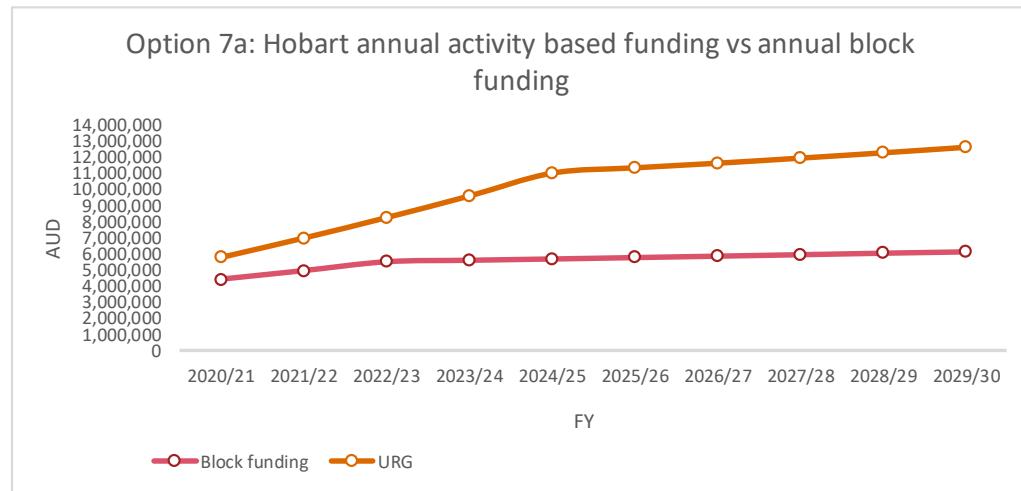
Revenue

The revenue attracted to the UCC, if it is able to be funded through ABF to an equivalent level to the URG regime, averages \$101.7m over 10 years. The revenue attracted to the UCC through a block fund approach totals \$51.2m over 10 years, equal to the projected operational costs.

The UCC in Hobart is nurse led, with GP clinical oversight. The UCC does not meet IHPA guidelines under URG or Tier 2 arrangements. Therefore, for the purpose of this feasibility assessment, funding has been modelled on two scenarios:

1. Block funding – funding equal to the operational cost of the UCC annually.
2. Activity based funding (ABF) – this funding is estimated based on the National Efficient Price per URG per presentation.

Modelling of two funding scenarios has enabled an estimate of the required state funding for the UCC to be financially sustainable over 10 years.



Key insights:

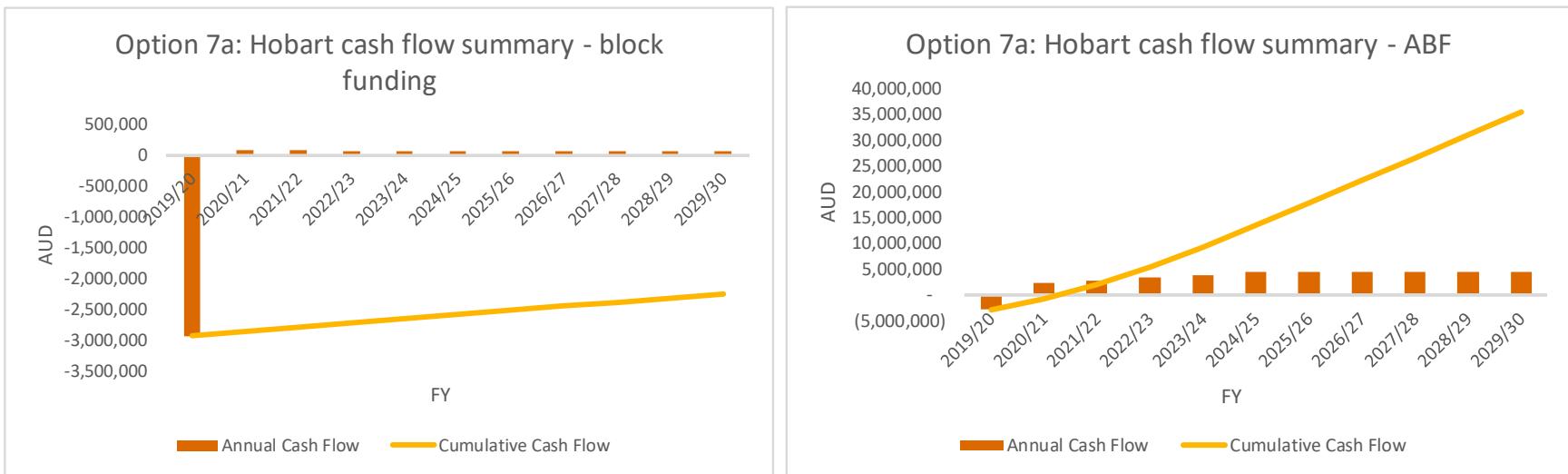
- The revenue associated with eligible URG activity is \$101.6m
- The revenue associated with block funding is \$51.2m.

Note:

- ABF and block funding revenue streams are accessed independently of each other.
- Based on the data provided, the current ED operational costs exceed the ABF revenue attributed to URGs for CAT3-5 non-admitted patients.

Cash flow summary

Although the Hobart UCC model, if funded based on ABF (URG), returns a positive NPV, this is due to the mismatch between the ABF funding levels and the actual requirements of a UCC. Through the analysis of both block and ABF funding, for the Hobart UCC, the required state funding contribution to achieve an NPV of zero is \$53.5m over 10 years (cash inflow = cash outflow over 10 years).



Key insights - Block funding

- Over the 10 year period there is no breakeven point, this demonstrates that the time taken to recover the total amount invested exceeds 10 years
- The NPV of all cashable and non-cashable benefits and revenue streams over 10 years is estimated to be \$(2.3)m
- The negative NPV indicates that the total discounted outflows are greater than the total discounted inflows over 10 years. Benefits and block funding revenue equal to the ongoing operational costs are not sufficient to recover the initial capital investment.

Key insights - ABF

- The breakeven point is estimated to be FY21/22 which means it will take approximately 1 year to recover the total amount invested
- The NPV of all cashable and non-cashable benefits and revenue streams over 10 years is estimated to be \$35.3m; this means that benefits and ABF revenue associated with URGs exceeds required funding.

Note:

- For modelling purposes the cost of total build of a UCC has been included. Depending on the proposed location; the facility may only require a clinical infrastructure fit out. This would reduce \$955,604 from the initial capital investment, and move the breakeven point forward.

Financial overview option 7b

Launceston

Financial and economic summary

The table below outlines the economic summary for a UCC in Launceston. Financial modelling has been carried out based on a joint funding arrangement from MBS and state funding, with operational costs and activity levels based on LGH ED activity and financial data. MBS funding has been estimated based on a conservative approach to eligible items from the Medicare Benefits Schedule. State funding is described as block funding; this is equivalent to the ongoing operational cost for the UCC. The NPV for option 7b is positive which demonstrates a greater inflow than outflow of cash, in today's terms.

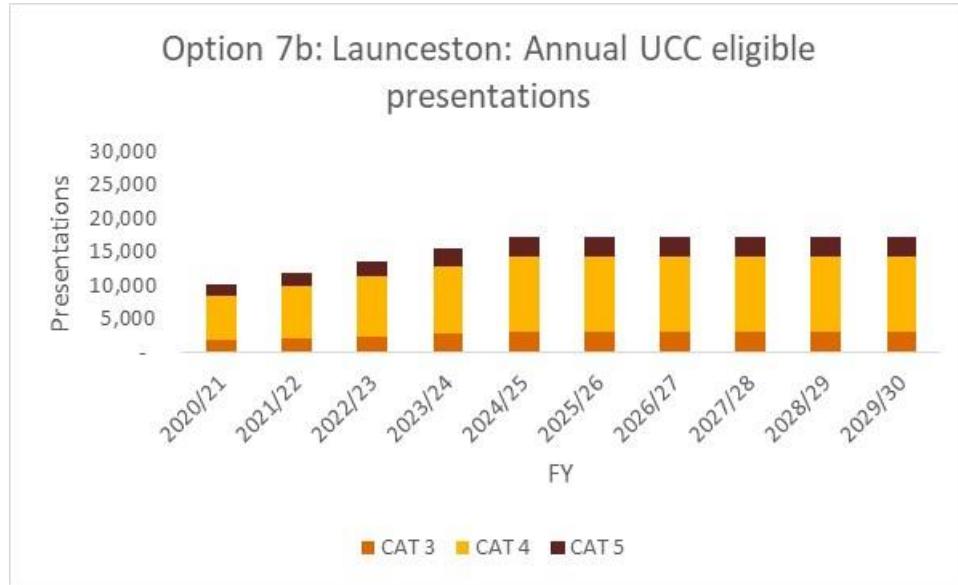
Assessment Criteria	Description	Value
Capital Expenditure	Total expenditure required to deliver the project	\$3.2m
Operating Expenditure	Total expenditure required to maintain the service over a 10 year period	\$42m
Total cost of ownership	The total cost of capital expenditure and the operating expenditure over 10 years.	\$45.1m
Net Present Value (NPV)	<p>The difference between the discounted streams of cash inflow (revenue and benefits) and cash outflow (costs) in today's terms.</p> <p>This project is considered to be a good investment as the NPV is greater than zero (i.e. the total discounted value of inflows is greater than the total discounted outflows).</p>	\$4.6 m
Breakeven point	The period of time taken for a project to recoup or recover the cost of the investment.	5 yrs
Potential cost saving*	This financial impact is stated at full realisation over 10 years; provided activity and the associated funding is redistributed to follow demand.	\$41.5m

Note:

- * These financial impacts are stated at full realisation over 10 years; provided activity and the associated funding is redistributed to follow demand. This may require initial hump investment in the UCC whilst maintaining current funding in ED. Over time the redistribution of demand may require resource redistribution from elsewhere in the health budget, and/or a flattening of the ED funding growth compared to historic and projected growth rates and thus a realisation of this cost saving.

Projected eligible UCC activity

The projected ED activity is based on the identified eligible patient population and projected out over a 10 year period based on activity projections provided by the department. Take up rates have been applied commencing at 50 per cent in the first year of opening and reaching a capped maximum of 85 per cent by year four.



Key insights

- On average:
 - 18% of activity is attributed to category 3
 - 65% of activity is attributed to category 4
 - 17% of activity is attributed to category 5.
- The peak volume of activity reached over the ten years is 17,347 separations.

Note:

- Take up rates have been applied for eligible presentations - starting from 50% in year one and increases to a capped max of 85% in year four
- A 50% discount has been applied to CAT 3 presentations

Proposed workforce

The table below describes the proposed workforce to deliver the UCC service for Option 7b: Launceston.

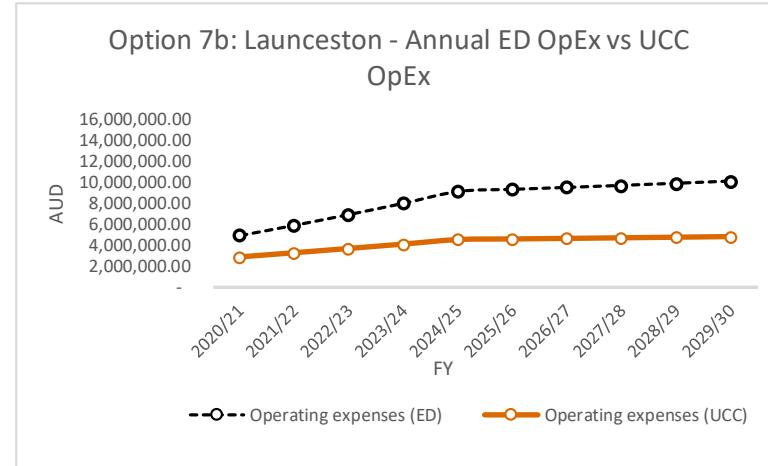
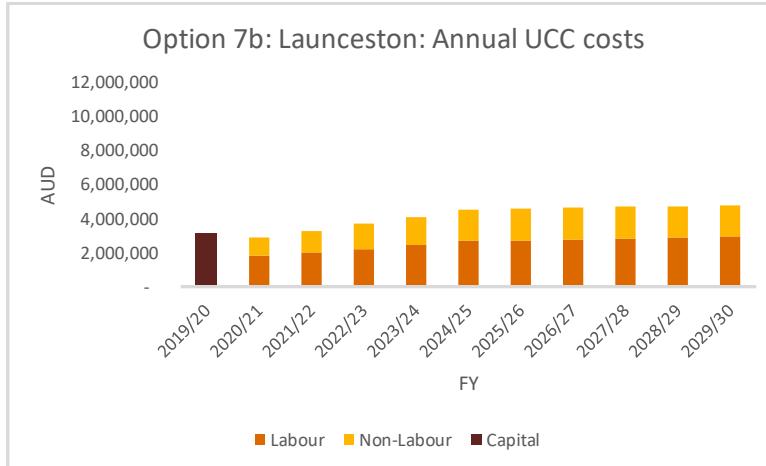
Rationale

The workforce for option 7b in Launceston is proposed based on a general practitioner led model. FTE numbers for clinicians providing 1:1 care have been projected in line with the projected eligible UCC activity. The workforce has been modelled on two shifts a day, each shift being eight hours and modelled on a 38 hour working week. The minimum workforce includes a general practitioner for each shift. The registered nurses, administrative officers and security staff have been modelled to cover each shift, seven days a week. To estimate labour costs conservatively; salary rates have been calculated to equate to a middle grade level using the Department of Health salary rate for Tasmania.

Position	Level	FY 20/21	FY 21/22	FY 22/23	FY 23/24	FY 24/25	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
General practitioner	L6	2.8	3.3	3.8	4.3	4.8	4.8	4.8	4.8	4.8	4.8
Registered nurse	Gd 5 Yr 2	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Allied health professional	L4 Yr 2	1.4	1.6	1.9	2.1	2.4	2.4	2.4	2.4	2.4	2.4
Administrative officer	AO3	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Security	HSO L4	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Total FTE		12.6	13.3	14.1	14.8	15.5	15.5	15.5	15.5	15.5	15.5
Total cost (\$m)		1.7	1.8	2.0	2.2	2.4	2.5	2.5	2.6	2.6	2.7

Financial overview

An estimated capital investment of \$3.2m will be required in FY19/20, this relates to infrastructure costs, civil works and construction. The remaining costs relate to ongoing operational costs; estimated to be an average of \$4.2m per year; of which \$2.5m is labour and \$1.6m is non-labour.



Key insights

- The annual operational cost for the UCC is less than the annual operational cost at ED to service the activity eligible for a UCC, equating to an estimated saving of \$41.5m over 10 years.
- The majority difference is likely due to the different labour costs relating to the UCC and ED; with the remainder different in costs due to the reduction in diagnostics at the UCC
- The average operational cost per presentation in ED is \$366 compared to \$242 in Launceston UCC
- The higher cost per presentation in the Launceston model (compared to the Hobart model) is partially offset by the ability to access MBS funding for this GP-led model.

Note:

- For modelling purposes the cost of total build of a UCC has been included; if no construction is required, the initial capital investment is reduced by \$955,604
- Cost data, by URG for activity eligible for a UCC was analysed and provided by the department. PwC did not analyse the raw data. This has constrained analysis of the ED costs to total operational expenditure; the contributions from labour and non-labour costs have therefore not been able to be analysed.
- The average operational cost per presentation in ED is for the same category of patients identified as suitable for the UCC model of care.
- Diagnostics for the UCC have been modelled on the NHCDC costs per episode for non-admitted patients; a discount to the cost per episode of 66% and 30% has been applied to pathology and imaging requirements respectively. This assumption has been verified in consultation with clinical stakeholders.
- Any realisation of this cost saving is dependant on the redistribution of activity from the ED to the UCC and the ultimate realisation of reduced demand on ED over time. This may result in an initial hump investment in the UCC whilst maintaining current funding in ED. Over time, the gradual reduction in demand in ED may result in the redistribution of resources over time, or a flattening of ED funding growth compared to historic and projected growth rates, and thus a realisation of the cost saving.

Cost summary

The table below outlines the estimated cost for Option 7b: Launceston UCC over 10 years.

Cost	FY19/20	FY 20-30	Total
Capital			
Construction and clinical infrastructure	\$955,604		
Equipment	\$990,964		
Total (including 20% contingency)	\$3.2m		\$3.2m
Operating costs			
Resourcing		\$25m	
Non-labour		\$16.4m	
Total (including 10% contingency)		\$41.9m	\$41.9m
Total cost of ownership			\$45.1m

Note:

- A detailed total cost of ownership can be found in the appendix
- Construction costs have been based on cost per m² from previous PwC analysis for the construction of a community, sub-acute health centre
- Infrastructure costs have been based on cost per m² from previous PwC analysis for clinical infrastructure for a mid-cost refurbishment.
- Any subsequent business case should look to include consultation with a quantity surveyor or health infrastructure specialist.

Revenue and cash flow summary

The revenue attracted by MBS is \$9.5m over 10 years, with the additional revenue provided by state block funding of \$42m over 10 years. MBS revenue has been modelled based on eligible MBS activity, which the *Health Insurance Act 1973* stipulates that Medicare benefits are payable. Block funding has been modelled based on the funding required to cover the operational cost of a UCC over 10 years.

Revenue

The UCC in Launceston is GP led, offering the opportunity to access federal funding through MBS. Given the disparity between estimated MBS revenue and estimated operating costs, additional state government block funding has been modelled to fund the ongoing operational expenditure.

The state may be in a position to provide ‘in-kind’ support rather than, or as well as, block funding; however, such an option was beyond the scope of this feasibility assessment.

Cash flow summary

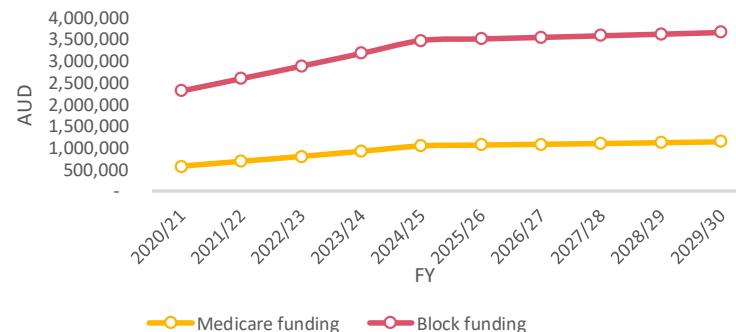
Through a combined funding model of MBS and state (block) funding, the breakeven point is estimated to be FY24/25 which means it will take approximately 5 years to recover the total amount invested.

The NPV of all cashable and non-cashable benefits and revenue streams over 10 years is estimated to be \$4.6m. The positive NPV indicates the total discounted inflows are greater than the total discounted outflows over 10 years. The additional revenue accessed through the Medicare Benefits Schedule partly offsets the increased labour costs.

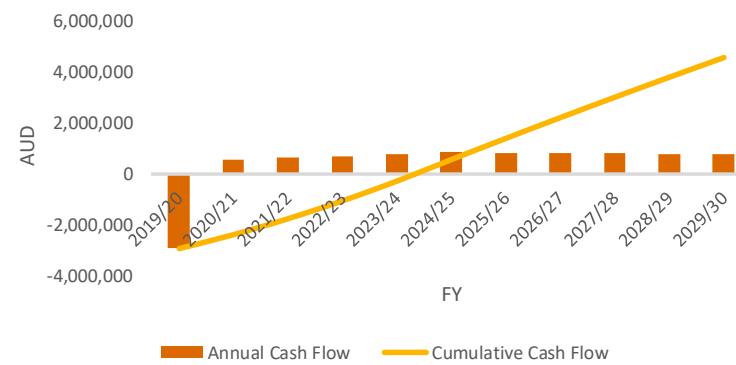
Note:

- These revenue streams are accessed in addition to each other.
- Detail of MBS items with benefits payable has been included in the Appendix.
- For modelling purposes the cost of total build of a UCC has been included. Depending on the proposed location; the facility may only require a clinical infrastructure fit out. This would remove \$ 955,604 from the initial capital investment, and move the breakeven point forward.

Option 7b: Launceston annual MBS funding vs block funding



Option 7b: Launceston cash flow summary - MBS and block funding



Financial summary Hobart and Launceston

Financial summary for Launceston and Hobart

The Launceston UCC model with combined state government block funding and MBS revenue returns a positive NPV within 5 years and thus can be considered a good investment. Although the Hobart UCC model, if funded based on ABF URG levels, returns a positive NPV, this is due to the mismatch between the ABF funding levels and the actual requirements of a UCC.

Assessment Criteria	Hobart		Launceston
	ABF (\$)	Block (\$)	MBS and block (\$)
Capital Expenditure	3.2m	3.2m	3.2m
Operating Expenditure	51.2m	51.2m	42m
Total cost of ownership	54.4m	54.4m	45.1m
Net Present Value (NPV)	35.3m	(2.3)m	4.6m
Breakeven point	1yr	>10yrs	5yrs
Av. cost per presentation	204	204	242
State funding contribution (over 10 years)	101.7m	51.2m	42m
Federal funding contribution (over 10 years)			9.5m
Potential cost saving*	72.7m	72.7m	41.5m

Key insights:

- The investment required from the state for option 7a is \$53.5m. This is estimated based on the required investment for a NPV of zero over 10 years.
- The state investment for option 7a exceeds that of option 7b (\$53.5m vs \$42m).
- The increased cost of staffing option 7b is partly offset by Medicare Benefits Schedule revenue over 10 years.
- The cost per presentation is \$204 for both Hobart UCCs and \$242 for the Launceston UCC. This difference is solely due to the labour costs as all non-labour costs are equivalent between the two options when averaged to account for variation in activity levels.

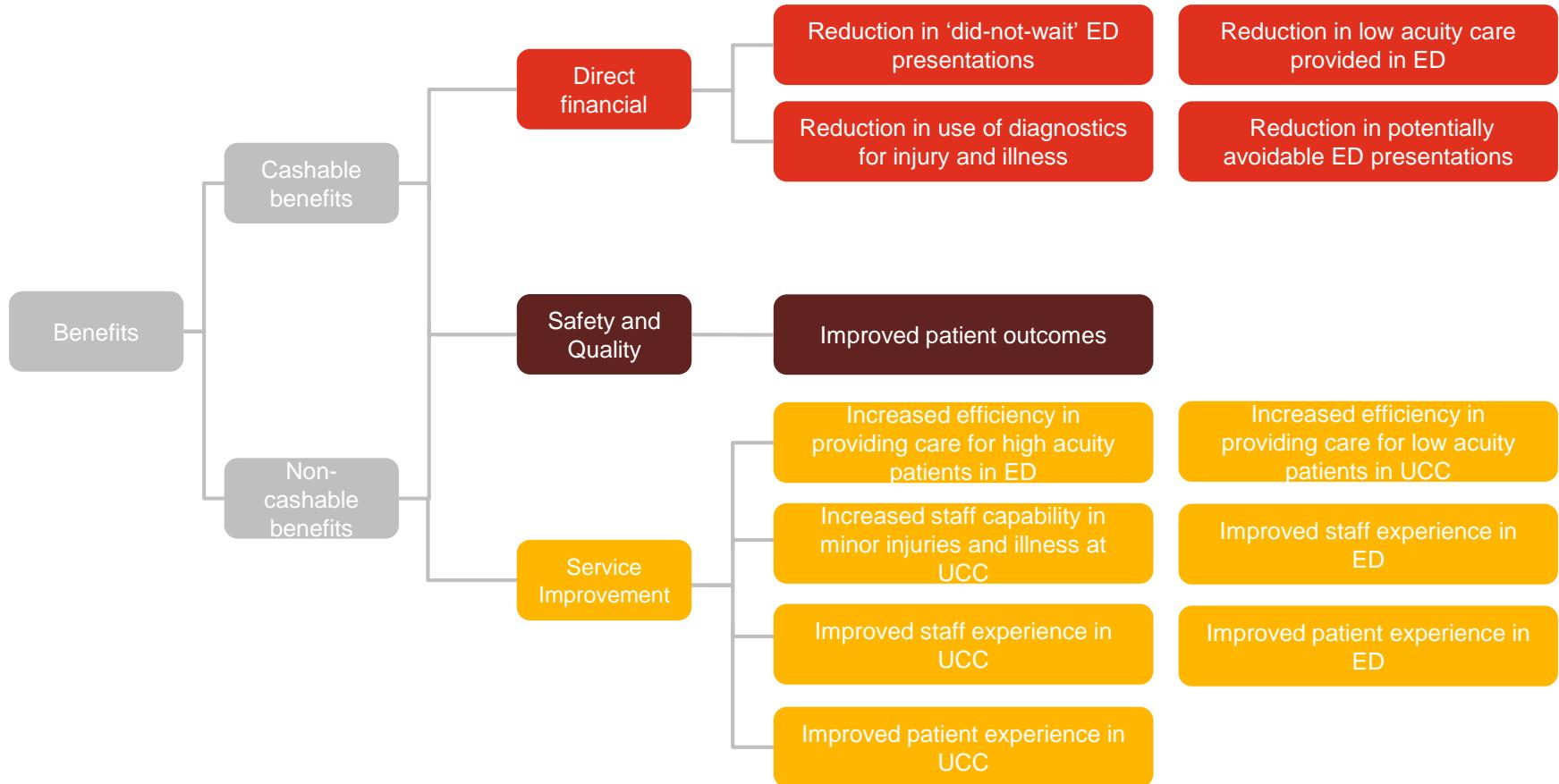
Note:

- * These financial impacts are stated at full realisation over 10 years; provided activity and the associated funding is redistributed to follow demand. This may require initial whilst maintaining current funding in ED. Over time the redistribution of demand may require resource redistribution from elsewhere in the health budget, and/or a flattening of the ED funding growth compared to historic and projected growth rates and thus a realisation of this cost saving.

Benefits

Measurable benefits of a UCC

The introduction of an urgent care centre will lead to real benefits for the Department, stakeholder groups and consumers. These benefits are both cashable and non-cashable, and have been categorised into three categories: direct financial, safety and quality and service improvement.



Benefits realised to the health system

The benefits that would be realised as the result of implementation of an urgent care centre are complex, and would accrue to both consumers and to the Tasmanian health system as a whole.

Expected benefits introduced through a UCC are broadly grouped into direct financial, safety and quality and service improvement. Whilst having quantified a direct financial benefit, the impacts of identified benefits should be considered beyond the economic impact.

As described in post-implementation reviews of Australian UCCs, any benefits that can be directly correlated to the UCC can only be accurately measured in the medium to long-term post implementation. As such, monitoring of benefits by the Department will be important to help articulate what has been achieved and demonstrate return on investment. Actual benefit realisation will need to be centrally coordinated and will depend on THS engagement and implementation success.

Whilst benefits that would be released to the Tasmanian health system have been estimated based on our experience in large-scale public sector health initiatives, benefits planning would be an extensive piece of work that would form part of a detailed business case.

1. Direct financial

These are benefits that will have a direct impact on the Tasmanian state healthcare budget, and presently are based on reducing the growth trajectory of low-acuity ED activity. As such, benefits would be realised over time based on the rate and extent that the Department is able to alleviate the need for further resourcing growth in ED. Whilst we were not provided with the data to accurately quantify the benefit, the ED would likely see a reduction in costs associated with providing unnecessary diagnostics.

2. Safety and Quality

These are benefits based on direct improvements to patient outcomes. In this instance, providing treatment to patients in an appropriate location will divert patients away from the ED, allowing patients that arrive via ambulance to be treated more quickly. This benefit is able to be measured through reduced patient off stretcher time (POST), reduced rate of mortality prior to or during ambulance transfer or during ambulance ramping; and reduced time to respond to 000 calls. Given that ambulance ramping is a major issue to the Tasmanian health system, especially RHH, this benefit of improving patient outcomes is of particular importance to the Department.

3. Service improvement

These are benefits that patients and staff will experience from efficiencies that are realised within the health system, which improves the patient experience, and creates new opportunities for staff to increase their capability.

Benefits: direct financial

The benefits included below are examples as described in the literature, and are indicative of some of the major benefits that should be realised to the health system.

Category	Benefit	Rational	Recipient
Direct financial	Reduction in low acuity care provided in ED	Low acuity patients have been defined by the Australian Institute of Health Welfare (AIHW) as patients who are assigned as an Australasian Triage Scale (ATS) level 4 or 5, who arrive by private vehicle or public transport, are not admitted to hospital or transferred to another hospital, and did not die. ¹⁵ In Australia, the propensity to provide care for low acuity patients in a high acuity setting, most commonly a hospital ED, is a common challenge faced by Australian health systems. ¹⁶ A clear consequence of treating patients in this high acuity setting is that specialist trauma skills developed by ED clinicians are being under-utilised as a result of the need to provide low acuity care in the ED. The introduction of a UCC could enable ED medical staff to work to their clinical scope for treatment of high acuity trauma presentations, whilst providing the case to expand the scope of emergency nurse practitioners and GPs in the UCC, which the literature has found are capable of providing safe, effective and timely care to low acuity presentations in Australian metropolitan areas. ¹⁷ Should the Tasmanian health system adopt a multi-disciplinary staffing mix in a mixture of hospital and community settings, the DoH may avert the need for growth in ED resourcing, and ensure clinical skills are best utilised for the high acuity ED presentations.	THS
Direct financial	Reduction in use of diagnostics for injury and illness	Appropriate investigation requesting is central to cost-effective, quality patient care and health care generally. For pathology in particular, a report by the Australian National Coalition of Public Pathology states that studies of clinical algorithms have found that where guidelines are imposed, 20-25% of frequently ordered tests such as autoantibody tests and infectious disease serology tests were inappropriately requested. ¹⁸ The introduction of similar guidelines for imaging requests has also been found to restrain the redundant ordering of tests in hospitals. ¹⁹ Given that the majority of these unnecessary investigations are performed on low acuity patients, the ED may realise a reduced cost for investigations.	THS
Direct financial	Reduction in potentially avoidable ED presentations	Potentially avoidable ED presentations are those where a patient attends a public hospital ED that could have potentially been avoided through the provision of appropriate non-hospital service in the community. Using the definition under the <i>National Healthcare Agreement</i> , ²⁰ a large proportion of RHH and LGH presentations are potentially avoidable, and should a UCC be introduced, the ED could see a substantial reduction in these presentations.	THS
Direct financial	Reduction in 'did not wait'	This benefit has been quantified and has been detailed on the following pages.	THS

Benefits: safety and quality

The benefits included below are examples as described in the literature, and are indicative of some of the major benefits that should be realised to the health system.

Category	Benefit	Rational	Recipient
Health and safety benefit	Improved patient outcomes	Ambulance ramping refers to a situation where ambulance officers and/or paramedics are unable to complete transfers of clinical care of their patient to a health facility, within a clinically appropriate timeframe, specifically due to the lack of an appropriate clinical space in the ED. ²¹ The literature is consistent: patients that arrive to the ED via ambulance and offloaded within 30 min experience better outcomes than those delayed. ²² Patients not offloaded within 30 mins are also a predictor for patients with an ED length of stay longer than 4 hours. The Department of Health has two efficiency KPIs for ambulance offloads: 85 per cent within 15 minutes (EFF 3) and 100 per cent within 30 minutes (EFF 4). At the RHH, the FY17 average compliance rate with KPI EFF 4 was 76 per cent, and 84 per cent LGH. ²³ Analysis conducted by Ambulance Tasmania suggests that approximately 18 per cent of ambulance transfers to EDs are avoidable as they could be considered for treatment in an alternative health service. ²⁴ Based on this, both RGH and LCH could experience a reduction in patients that arrived via ambulance to the ED should a UCC be implemented, which will improve the number of ambulance patients that are offloaded within the 30 minute KPI at EDs, and improve the health outcomes of those patients that arrive via ambulance to ED.	Ambulance Tasmania

Benefits: service improvement

The benefits included below are examples as described in the literature, and are indicative of some of the major benefits that should be realised to the health system.

Category	Benefit	Rationale	Recipient
Service improvement	Increased efficiency in providing care	Currently within Hobart and Launceston, the limited availability of an appropriate alternative to the ED for urgent and emergency care results in an increased demand on the ED and reduces the level of efficiency that healthcare professionals are able to operate at within the ED. Should a UCC be implemented and is successfully able to divert preventable ED presentations away from the ED, the ED would realise increased efficiencies in providing care for high acuity patients as ED clinicians are able to work to their top of scope more frequently. Conversely, as the UCC gradually matures, it would realise an efficiency in providing care for low acuity patients, as the time to be seen would be significantly less than if the patient had presented at the ED.	Patient and THS
Service improvement	Increased staff capability	Within the ED at RHH and LGH, a significant proportion of the current clinician focus is around the treatment of low acuity patients. With the introduction of a UCC, clinicians working within the UCC will be required to have the capability of providing comprehensive care for minor injuries and illness, whilst still delivering acute care for patients if and when required, for high acuity patients that may present, or those that may deteriorate whilst awaiting treatment in the UCC. The UCC provides a unique opportunity for clinicians to work to an extended scope of practice, enabling them to adhere to the patient centred, behavioural change, and organisational capabilities necessary for the treatment of minor injury and illness in a UCC.	Staff
Service improvement	Improved staff experience	With the opportunity for staff to gain extended clinical capabilities at the UCC and the reduced need for staff to work over time at the ED, the staff experience at both the UCC and the ED will improve. UCC staff may have increased learning and development opportunities, enabling them to work at an extended scope of practice not otherwise available, whilst the reduction in required overtime for ED staff will have a positive impact on staff fatigue, and help to ensure patient safety is of the highest standard.	Staff and patients
Service improvement	Improved patient experience	When a patient arrives at a medical facility for any type of activity, it places them under a certain amount of stress, forces time away from family, and often results in time taken off of work. As such, a crucial aspect of the patient experience is centred upon the efficiency of the clinical staff and the health facility in general. As outlined above, should a UCC be implemented then the ED would realise increased efficiencies in providing care for high acuity patients, and the fit-for-purpose UCC would be efficient in providing care for low acuity patients. Thus, the patient experience at both the UCC and ED would be expected to improve. Similar to that used by the NHS in UCCs in England, the Department could implement a <i>Friends and Family Test (FFT)</i> , asking patients if they would recommend the UCC to their friends and family, as a proxy for patient experience.	Patient

Quantified benefit

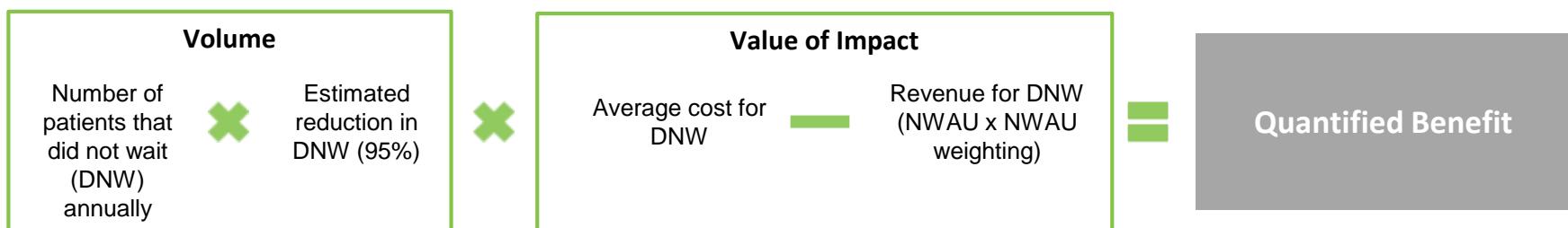
Reduction in 'did not wait' ED presentations has been quantified and included as a quantified benefit into the economic model.

The term 'did not wait' (DNW) is used to describe patients who present at an emergency department and are triaged, but leave before medical treatment.²⁵ A study of a major, tertiary hospital in south-east Queensland found that the general demographic and clinical profile of patients who do not wait includes those who are younger, assigned less urgent triage categories, have an overseas or no address, speak a language other than English, present to the ED by private transport during evening and night time hours.²⁶ Whilst follow-up data is usually unavailable for DNW patients, and there is the potential for unrecognised poor outcomes due to lack of treatment, Australian literature is consistent in concluding that DNW patients in Australian emergency departments have conditions of lower acuity and have lower mortality rates than those who wait for assessment. Furthermore, Australian literature has found that a majority of DNW patients sought treatment elsewhere, with a large number of these thinking their problem was inappropriate for an ED in the first instance.²⁷

Category	Benefit	Recipient	10 year total
Launceston- Direct financial	Reduction in 'did not wait' ED presentations	State	\$443,513
Hobart- Direct financial	Reduction in 'did not wait' ED presentations	State	\$883,790

Note:

- Quantifying additional benefits identified was constrained by the data made available for analysis
- A 50% discount has been applied to the above benefit before adding into the financial model
- Cost per DNW provided by the Department



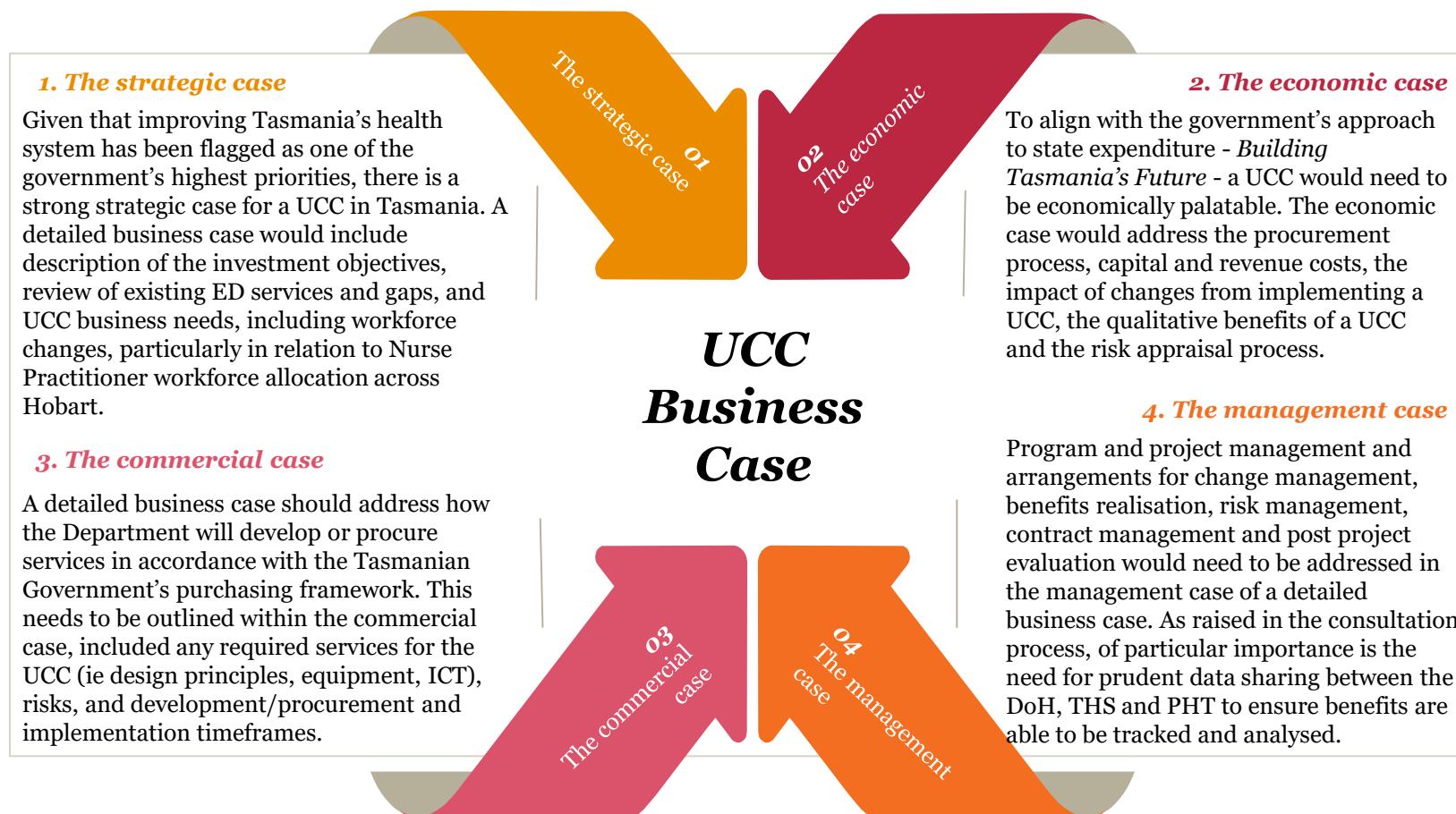
Impacts on the Tasmanian health system

Whilst it is difficult to consider the full impact on the Tasmanian health system from the implementation of an urgent care centre, we have addressed the key areas which would likely be impacted. Whilst the preliminary impacts on these business areas were raised and noted throughout the consultation process, a detailed business case would involve further engagement to ascertain the degree and scope of impact, and to validate any assumptions stated in this feasibility assessment.

Business area	Impact
The Department	Given the reduced cost of providing care in a UCC in comparison to the ED and the ability to improve patient outcomes and experience, through a co-designed service that responds directly to the community needs, the proven feasibility of a UCC indicates both health system benefits and improved health outcomes that are capable of being realised immediately and into the future; two strategic priorities of the Department which strongly align with the Government's health agenda.
Emergency departments (RHH and LGH)	As evidenced in the literature and confirmed through our analysis, the ED will experience a reduction in low-acuity preventable presentations, whilst improving both the staff and patient experience and overall operating position of the ED. If and when the ED realises this reduction in demand, and if after a period of time that reduction is found to be stable, the Department as the purchaser may choose to reduce the volume of health services required from the THS, and redistribute health funding as per demand. Additionally, this may reduce the need for growth in ED resourcing, however there would need to be an appropriate proof of concept for the UCC before any funding decisions of this nature were made. Furthermore, the UCC is dependent on the availability of specialist support of ED clinicians over the phone, and efficient pathways to transfer patients to ED as required.
The Tasmanian Health Service	It is expected that a UCC would enable the THS to improve its performance against the Key Performance Indicators as outlined in the Service Agreement, primarily against Acceptability (ie the patient experience), Accessibility (ie time to be seen, DNWs, length of stay), Effectiveness (readmission rate), Efficiency (ambulance offload delay) and Finance (expenditure within funding allocation).
Ambulance Tasmania	It is expected that A UCC would aid in realising the projected benefits anticipated through implementation of the recommendations of the <i>Review of Ambulance Tasmania Clinical and Operational Services</i> , which include reducing unnecessary demand for emergency services and increasing the efficiency of Ambulance resources. By accepting secondary triaging, the UCC could reduce ambulance ramping at emergency departments and improve emergency response times.
Non gov. services	It is expected that a UCC would need to be specifically tailored to the local context in which it operates to ensure the UCC would not impact non-government primary health services that operate in the community. This would be supported by a strong clinical governance framework that outlines the clinical pathways, with patients being referred back to their GP for ongoing care.
The Tasmanian community	It is expected that a UCC will provide the local community with much needed health services, especially in the after-hours space, that can be easily accessed with no out of pocket cost to the patient.

Considerations for a detailed business case

Should the department determine that the feasibility study has accurately identified that an urgent care centre is best placed to address a service gap in Tasmanian health services, the DoH would need to progress to a detailed business case to further demonstrate the need for the UCC services. This would include how it would deliver and manage the UCC throughout its lifespan which would involve things such as detailed funding, benefits planning, and risk identification, and how it would address any impacts to the Tasmanian health system that may arise as consequence of implementing a UCC.



Risks and mitigation (1)

The table below outlines current risks which would be affected by implementation of a UCC, which have been assessed in accordance with the state of Tasmania risk matrix which is detailed in the appendix. Residual risk ratings would depend upon effective implementation of a UCC.

Risk	Current risk rating	Impact of UCC on risk	Risk rating after treatment
Delivery of safe clinical services: If the demand on existing services delivered in ED continues to rise; there is a risk of further exceeding acceptable wait times; with an associated increase in morbidity and mortality.	A (almost certain, high)	Mitigates risk: The diversion of low acuity patients to the UCC will reduce the existing demand on ED services; freeing up capacity to manage high acuity patients.	N (Unlikely, high)
Delivery of safe clinical services: If the demand on existing ED services continues to rise; there is a risk that staff fatigue impacts both patient outcomes and staff experience.	A (almost certain, high)	Mitigates risk: The diversion of low acuity care to the UCC will reduce the existing demand on ED	N (Unlikely, high)
Delivery of safe clinical care: If the existing demand on ED service continues; there is a risk of a critical incident related to ambulance ramping.	A (almost certain, high)	Mitigates risk: The diversion of low acuity care to the UCC will reduce the existing demand on ED services and improve ambulance unloading time; reducing the risk of a critical incident	N (Unlikely, high)
Business operations: If the existing demand on the ED service continues there is a risk to delay in accessing inpatient services due to bed block	B (Likely, high)	No impact on risk: The diversion of low acuity, non-admitted patients to the UCC will have no impact on current inpatient flow	B (Likely, high)
Reputation: If the inability to provide effective ED services to the community continues, there is a risk of further damage to the reputation of the THS, the Department and the health minister	A (almost certain, high)	Mitigates risk: The diversion of low acuity care to the UCC will reduce demand on ED, reducing the current high profile of the Tasmanian health service in the media	B (Likely, high)
Financial: If the delivery of low acuity care continues to be provided in the ED, there is a risk of a continued deficit between the revenue for providing low acuity care and the cost to provide care in ED	A (almost certain, high)	Mitigates risk: The cost to deliver low acuity care is substantially reduced in comparison to the cost to provide low acuity care in ED	N (unlikely, high)

Risks and mitigation (2)

The table below outlines risks introduced through the development of a UCC, which have been assessed in accordance with the state of Tasmania risk matrix which is detailed in the appendix. Residual risk ratings would depend upon effective implementation of a UCC.

Risk	Current risk rating	Risk mitigation	Risk rating after treatment
Competing service: If the UCC implemented has a comparable service delivery as existing GP services; there is a risk that the service be seen as direct competition by existing businesses	B (likely, high)	The UCC options have been co-designed through broad stakeholder consultation, aiming to reduce the risk of diverting patients away from existing, effective primary care services. Approaches considered include, referral of patients back to their regular GP for ongoing care following an episode at the UCC, and the use of the patient advocate role to find a GP for UCC patients who do not already have one. A detailed business case will need to address the approach to increasing clinician and provider awareness to the purpose of a UCC to ensure there is appropriate utilisation of the service. During detailed design of a UCC, detailed clinical inclusion criteria should be developed	C (Unlikely, high)
Increased demand on ED: If the UCC is located close to the ED, there is a risk that the UCC will increase the existing demand on the ED	A (almost certain, high)	The UCC options that have developed are both located away from the ED to reduce this risk. Location analysis has been carried out to understand suitable locations for a UCC	C (Unlikely, high)
Financial: If detailed analysis of existing primary care services is not carried out, there is a risk of service duplication of services and thus funding	B(likely, high)	Any subsequent detailed business case will be required to assess existing services to prevent duplication and ensure integration	C (unlikely, high)
Failure to realise projected activity: If the UCC fails to reach expected activity levels, the demand on ED will not be reduced and an additional funding requirement has been introduced	B (likely, high)	Detailed location analysis has been carried out to determine the location that will service the highest demand. Any subsequent detailed business case will need to develop a rigorous implementation strategy and change management process	C (unlikely, high)
Delivery of safe clinical care: If the UCC is implemented; there is a risk that high acuity patients will present to the UCC due to its convenient location or the centre being misconstrued as an ED	B (likely, high)	Whilst experience in other jurisdictions show that UCCs expand their service offerings to treat a broader range of clinical issues and higher levels of acuity as the services matures, any subsequent detailed business case and implementation plan will require an appropriate public awareness campaign and planning for such an event.	C (unlikely, high)

Location analysis

Location analysis

Location analysis has determined an appropriate location for a UCC.

Whilst the election commitment was high-level, the feasibility assessment was to specifically consider integration with existing services run by the THS, including Health Centres in Hobart (specifically Glenorchy and Kingston), and ComRRS. Whilst integration has already been considered from a service model perspective, integration was also considered from a physical location perspective.

PwC's approach involved understanding the Department's location objectives, confirming a list of locations, and confirming the location assessment criteria. Location objectives and possible locations were discussed at the workshop and endorsed by the Steering Committee; that being, at a location in the community that is away from the ED.

The key criteria for location selection was an evolving process, and included the Government's original election commitment, literature review findings, workshop sentiment, and local insight gained from stakeholders. As a result, the criteria broadly included:

1. Where feasible, integration with the Health Centres (specifically Glenorchy and Kingston) and ComRRS should be considered.
2. Where feasible, a patient should not first drive past the ED en route to the UCC.
3. The UCC should be easily accessible via public transport; both from the CBD and surrounding suburbs.
4. The UCC should be accessible via car within 20 mins.
5. The UCC should not be more than 20 mins drive from the ED to manage patients who present with higher acuity conditions.

Location analysis was then conducted, and included:

1. **Demand:** the average annual presentations to the RHH and LGH emergency department from 2012 - 2017 were shaded by Statistical Areas Level 2 (SA2) for URGs capable of being treated in a UCC.
2. **Supply:** the total number of general practitioners that work at general practices within the SA2 were plotted.

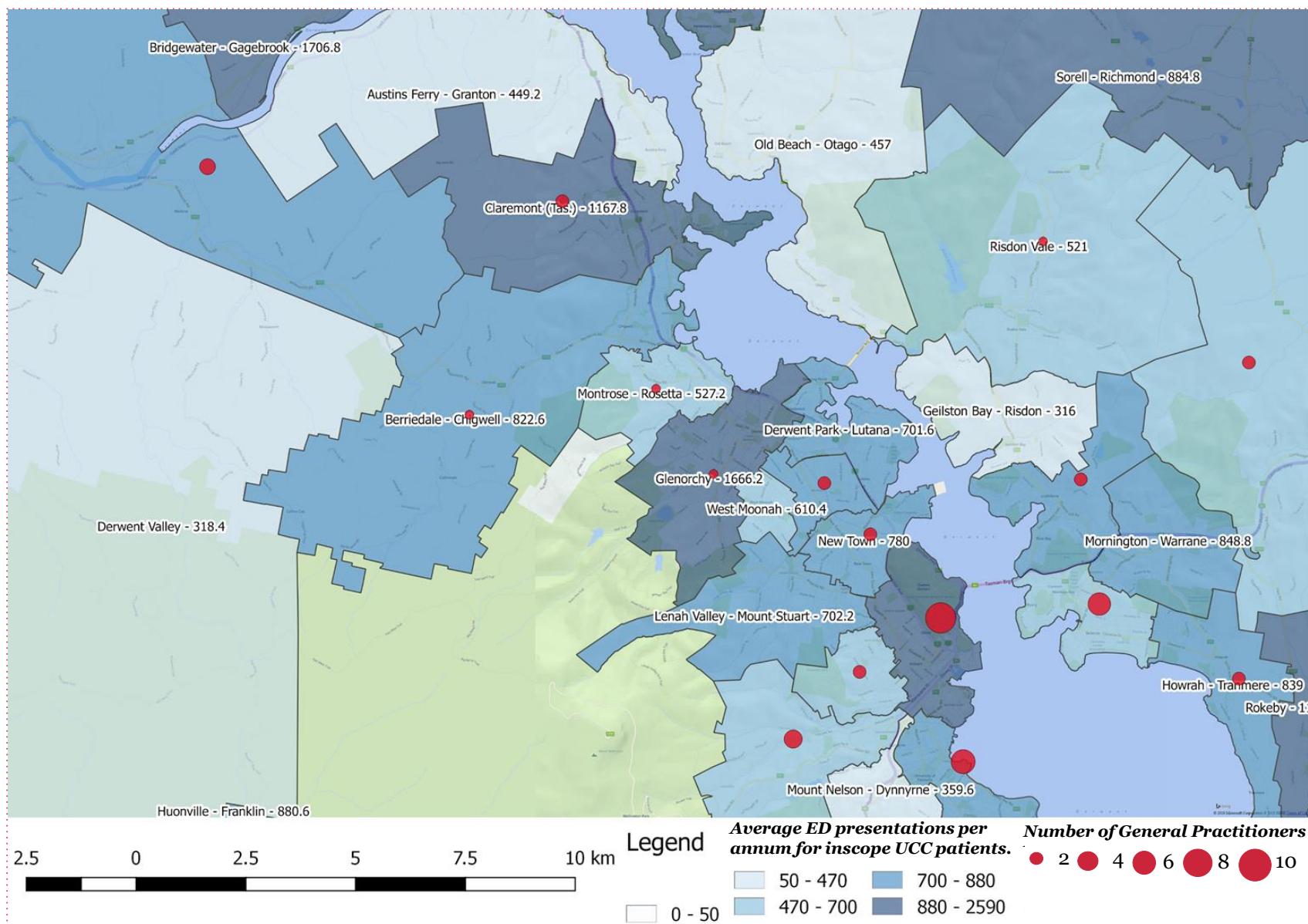
PwC's geospatial economic modelling (GEM) software was used to plot this supply and demand on a map of Hobart and Launceston. These are shown on subsequent pages, and include North-west Hobart South-west Hobart and Launceston.

Information was sourced as follows:

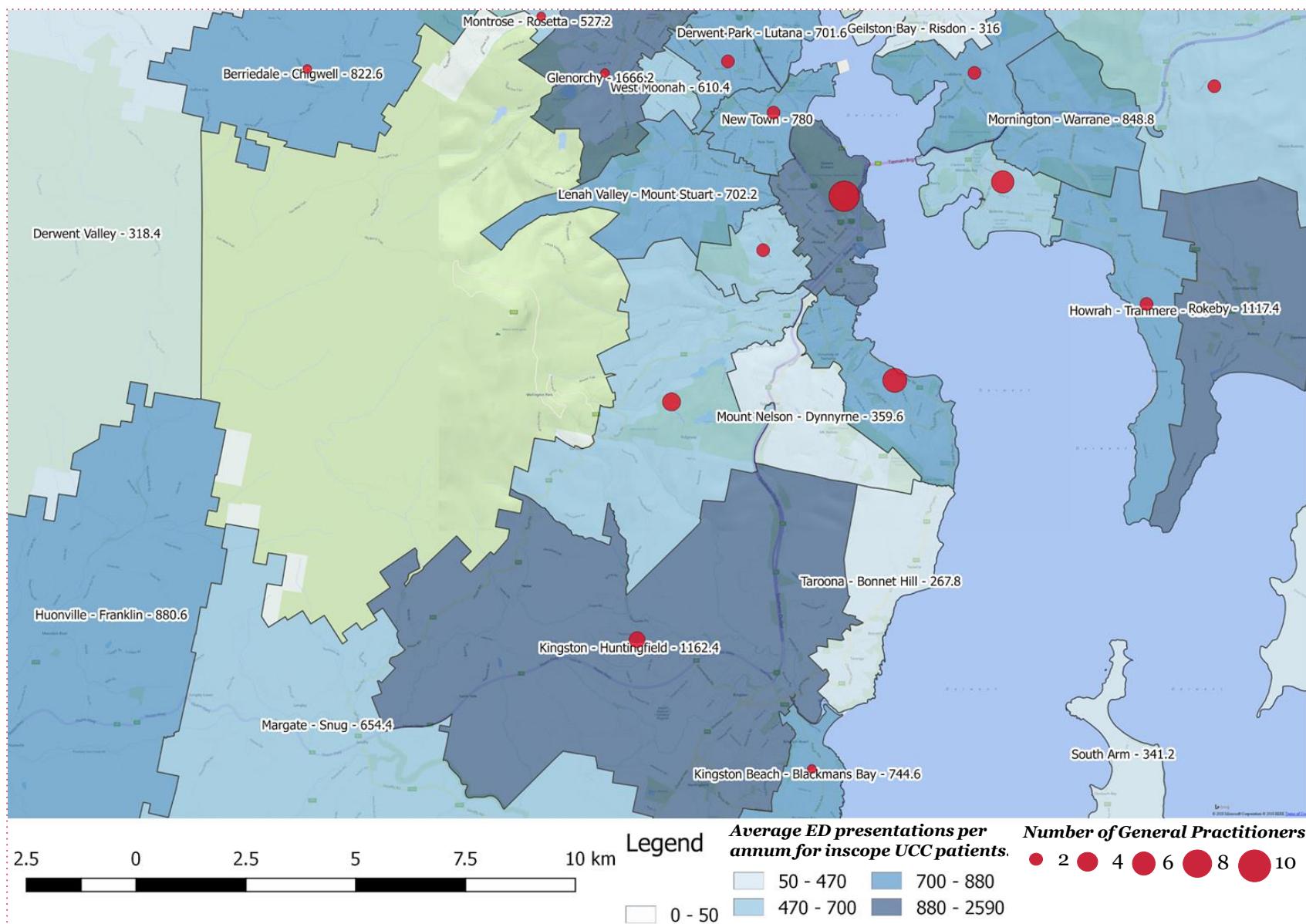
- **Demand:** Data provided by the Department for ED presentations per annum to RHH and LGH for in-scope UCC patients (Non-admitted category 3, 4 and 5 patients).
- **Supply:** Data sourced from Primary Health Tasmania Health Directory, which indicates the number of GPs who work at each practice within each SA2. Given that some GPs may work at multiple practices across Hobart or Launceston, or may work part-time, the number of available GPs may be slightly over-represented.

Note: The named SA2s in the diagram below include only those SA2s that have relatively high ED demand and low GP supply.

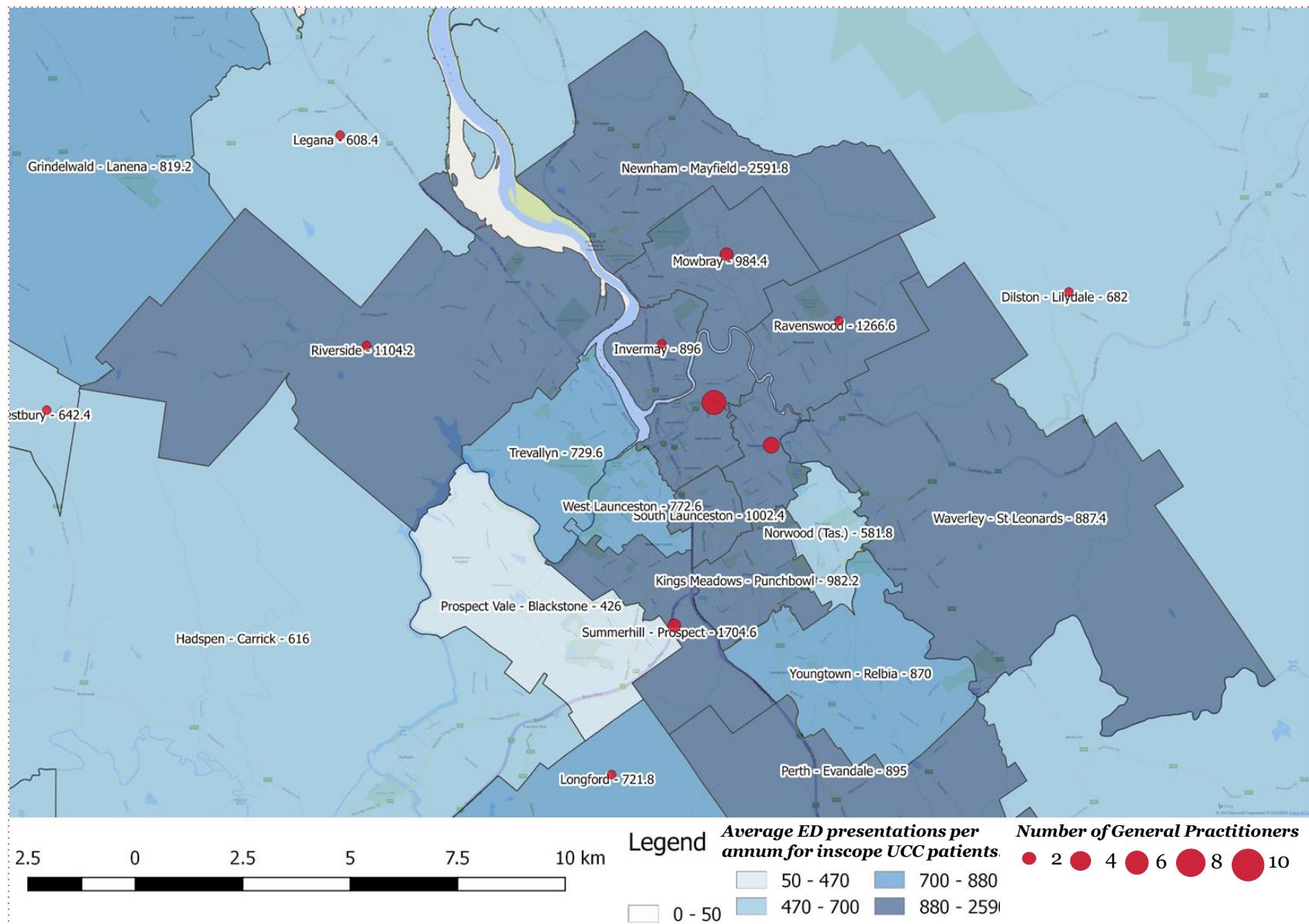
North-west Hobart



South-west Hobart



Launceston



Hobart location analysis

The following table describes the SA2 with the highest presentation rate for URGs representing conditions capable of being treated in a UCC, with information regarding existing health facilities within the SA2, and public transport that services the SA2.

SA2	Existing health facilities	Public transport	Distance to ED by car
1. Bridgewater-Gagebrook - 1,706.8 average presentations per year to RHH	<ul style="list-style-type: none"> Brighton Community Health Centre (DoH) 1 General Practice (in CBD) 	<ul style="list-style-type: none"> Bridgewater and Gagebrook serviced by 8 bus routes. Direct bus services to CBD (1hr 6 mins) and to Glenorchy interchange (45 mins). 	18 - 30 mins (21.4km)
2. Glenorchy - 1,666.2 average presentations per year to RHH	<ul style="list-style-type: none"> Glenorchy Health Centre (DoH) (opened Feb 18) 1 General Practice (in CBD, 500m from Health Centre). 	<ul style="list-style-type: none"> Glenorchy serviced by 24 bus routes Glenorchy interchange next to Northgate Shopping Centre Direct bus services to Claremont (20 mins), Bridgewater (40 mins) and Howrah (40 mins, adjacent to Rokeby), and CBD. 	10 - 20 mins (8.5km)
3. Claremont - 1,167.8 average presentations per year to RHH	<ul style="list-style-type: none"> 2 General Practices (all in CBD) 	<ul style="list-style-type: none"> Claremont serviced by 10 bus routes. Direct bus services to Glenorchy (15 mins) and CBD (45 mins) Direct services from both GPs 	14-24 mins (13.7km)
4. Kingston-Huntingfield - 1,162.4 average presentations per year to RHH	<ul style="list-style-type: none"> Kingston Community Health Centre/KICC (leased) (DoH) Kingston Health Centre (owned, opening March 2019) (DoH) 3 General Practices (all in CBD). 	<ul style="list-style-type: none"> Kingston serviced by 15 bus routes, Hunterfield by 7 routes. Bus stop planned in front of new Health Centre; co-located with 3 GPs in CBD. 	12-22 mins (13.1km)
5. Rokeby - 1,117.4 average presentations per year to RHH	<ul style="list-style-type: none"> Clarence Plains/Rokeby Community Health Centre (DoH) 1 General Practice 	<ul style="list-style-type: none"> Rokeby suburbia serviced by 1 bus route, 6 routes bypass outskirts. 30 mins direct to CBD, 40 mins indirect. 	12-18 mins (12.8km)

Launceston location analysis

The following table describes the SA2 with the highest presentation rate for URGs representing conditions capable of being treated in a UCC, with information regarding existing health facilities within the SA2, and public transport that services the SA2.

SA2	Existing health facilities	Public transport	Distance to ED by car
1. Newnham-Mayfield - 2951.8 average presentations per year to LGH	• N/A	<ul style="list-style-type: none"> • Newnham and Mayfield serviced by 3 bus services; approx 4 departures/hour. • 15 mins to CBD via bus; terminates at CBD. • 1.4km walk from CBD depot to LGH, or 2nd bus. • Adjacent suburb Mowbray serviced every 10 mins, and serviced by multiple GPs. 	10 - 20 mins (8.8km)
2. Summerhill-Prospect - 1704.6 average presentations per year to LGH	• 2 General Practices	<ul style="list-style-type: none"> • Summerhill and Prospect Vale serviced by 7 bus services; approx 5 departures/hour. • 25 mins to CBD from Prospect Vale via bus, 37mins from Summerhill. • All services stop outside LGH enroute to CBD. • Both GPs within walking distance to bus stop. 	8 - 10 mins (5.1km)
3. Launceston - 1434.2 average presentations per year to LGH	<ul style="list-style-type: none"> • 3 hospitals • 7 General Practices 	• Launceston City Interchange (depot); serviced by 90 bus routes.	~ 5 mins (2km)
4. Ravenswood - 1266.6 average presentations per year to LGH	<ul style="list-style-type: none"> • Ravenswood Community Health Centre • 1 General Practice 	<ul style="list-style-type: none"> • Ravenswood serviced by 5 services; approx 1 departure/hour. • 20 mins to CBD via bus; terminates at CBD. • 1.4km walk from CBD depot to LGH, or 2nd bus. 	10 mins (5.9km)
5. Riverside - 1104.2 average presentations per year to LGH	• 1 General Practice	<ul style="list-style-type: none"> • Riverside serviced by 4 services; however, approx 2 departures/hour • 20 mins to CBD via bus; terminates at CBD. • 1.4km walk from CBD depot to LGH, or 2nd bus. 	8 - 12 mins (5.3km)
6. South Launceston - 1002.4 average presentations per year to LGH	• ComRRS building	<ul style="list-style-type: none"> • South Launceston serviced by 12 services. • 12 mins to CBD via bua, 4 mins to LGH. • Direct services to LGH, 200m from bus stop to ComRRS. 	1 - 3 mins (3.5km)

Potential UCC locations in Hobart and Launceston

Our analysis has pinpointed possible locations for a UCC, based on ED demand, GP supply, existing health facilities, available public transport, and time taken to travel between the UCC and ED.

Hobart

Based on the key criteria for location selection, and given that ED demand in Hobart is concentrated to particular SA2s, analysis suggests a UCC may be best placed within **Glenorchy** for the following reasons:

1. Glenorchy offers a government owned and operated Health Centre, which is a new, fit-for-purpose primary health facility with capacity and existing infrastructure.
2. Glenorchy has the capability to capture patients travelling en route to ED from SA2s with high demand, including Bridgewater-Gagebrook, Claremont and Glenorchy itself, as well as Rokeby in the East, and Sorell-Richmond in NE.
3. Glenorchy interchange services 24 bus routes; all northern routes pass through whilst en route to the ED, and direct bus routes to Rokeby in the East, CBD and surrounding suburbs.
4. Glenorchy is within a 20 minute car ride from Bridgewater-Gagebrook in the north-west, Rokeby in the east and the CBD in the south.
5. Glenorchy is within 20 minutes drive to RHH ED.

Whilst Kingston may also be seen as a sensible location given the high demand, it is well-serviced by existing health services, and unlike Glenorchy, does not offer the potential to capture a large number of patients outside of the individual SA2.

Launceston

Unlike Hobart, ED demand by SA2 is generally decentralised across Launceston, with the exception of one SA2; Newnham-Mayfield. Based on the key selection criteria for location selection combined with localised insight provided by the project Reference Group, analysis suggests that a UCC may be best placed within **Mowbray**. Whilst Mowbray does not have the highest demand, and is well serviced, it is strategically placed to capture a large amount of the demand from the surrounding SA2s.

1. There are currently no known government health facilities within Mowbray.
2. Whilst only patients from Newnham-Mayfield would need to pass through Mowbray, the required 'backtracking' from Invermay/Ravenswood to Mowbray is minimal.
3. Mowbray has bus services every 10 minutes to the CBD (Monday to Friday), and offers services to surrounding suburbs.
4. From the furthest locations (Riverside in the west, Summerhill-Prospect in the south), both are within a 20 minute drive to Mowbray.
5. Mowbray is within 20 minutes drive of LGH ED.

Whilst ED demand is largely decentralised when compared to Hobart, a UCC in Mowbray could capture a significant proportion of demand that currently originates from within a concentrated group of SA2s; that being the northern suburbs of Launceston, particularly Newnham-Mayfield.

Recommendations

Recommendations

Recommendations

Economic modelling of option 7a and 7b; combined with the insights from stakeholder consultation, the literature review and data analysis, has identified that an UCC is a feasible option. A UCC presents a significant cost saving opportunity in addition to the safety and quality, and service improvement benefits.

A UCC has the potential to provide cost efficient and effective care for patients presenting with low acuity illnesses and injuries. A UCC would support the Department in delivering on the key priority of ‘reducing avoidable hospitalisations’²⁸; a clear example of a project that builds services that continue to improve the health, wellbeing and safety of Tasmanians.

It is estimated that the financial saving introduced through the development of a UCC outweighs the cost; with the UCC being significantly more cost efficient as a place to deliver low acuity care. The estimated cost saving of diverting low acuity presentations from ED to a UCC is \$41.5m over 10 years for Launceston and \$72.7m over 10 years in Hobart. These financial impacts are stated at full realisation over 10 years; provided activity and the associated funding is redistributed to follow demand. This may require initial hump investment in the UCC whilst maintaining current funding in ED. Over time the redistribution of demand may require resource redistribution from elsewhere in the health budget, and/or a flattening of the ED funding growth compared to historic and projected growth rates and thus a realisation of this cost saving.

Preferred option; option 7b

The estimated block funding, and therefore state funding, required for option 7b is less than option 7a. However, when this is standardised for the number of presentations, the state funding required per presentation is greater for option 7b than option 7a. This is largely due to the increased labour costs of option 7b. The additional revenue accessed through the Medicare Benefits Schedule partly offsets these increased costs and option 7b is also amenable to a public private partnership. In addition, option 7b, with a GP-led workforce, is more likely to be able to cater for the health needs of UCC patients due to GPs’ scope of practice.

Conversely, based on stakeholder feedback, the NP-led Option 7a has the potential to introduce challenges around scope of practice. Feedback from external stakeholders of long established UCCs has identified that the acuity of presentations to a UCC has the tendency to increase over time as the model is increasingly understood and accepted. A nurse-led model, option 7a, has the potential to introduce challenges around managing high acuity presentations in the interim period before transfer to the ED. There may also be additional challenges introduced through the availability of a nurse practitioner workforce in Tasmania.

Next steps

Next steps

This work on Urgent Care Centres will be an important initial component of future scoping work on primary care services and their integration within the Tasmanian health system. The introduction of a new health service can pose the risk of duplicating existing services, and thereby reducing value for money. It will therefore be important to give detailed consideration to the existing suite of services that provide care for this cohort of patients. Such consideration should include analysis of service scope, utilisation and outcomes, with the aim of optimising public spend.

Whilst this assessment has shown that a UCC within Tasmania could be feasible, the preferred option (7b) is characterised by a business model that may be best delivered by a GP co-operative or primary care provider that is able to successfully operate the service within an integrated Tasmanian health system.

In order for the concept to progress further, the following next steps are recommended to the Department for option 7b; this is assuming that the required government approvals to proceed are obtained as and when required:

1. Conduct further analysis for option 7b for consideration of a UCC of this service model in Hobart, using activity projections for Hobart, in addition to the existing economic analysis carried out for option 7b in Launceston
2. Conduct further consultation for option 7b, including consultation with consumers and consumer representatives, and broader consultation with clinicians.
3. Conduct analysis to determine a suitable funding source for a UCC:

Next steps (continued)

- a. Conduct further detailed design of the UCC model of care to inform an analysis of synergies with existing and emerging 'hospital avoidance' and primary healthcare services
 - b. Map community services - assess outcomes and value for money
 - c. Seek any federal funding approvals that may be available to access federal funding
 - d. Investigate possibility of funding arrangements outside the public health system, including but not limited to cooperative funding arrangements, private or not-for-profit enterprise.
4. Prepare a detailed business case, including funding modelling, broad consultation and early market engagement for option 7b. Early market engagement should aim to determine the availability of primary care providers with the capability and capacity to provide the UCC model under an outsourced or public-private partnership arrangement
 5. Prepare required funding submissions for state and/or Commonwealth funding allocation(s)
 6. Obtain funding approvals
 7. Conduct further detailed model of care design to finalise requirements for:
 - a. Clinical governance
 - b. Clinical protocols and transfer pathways (in and out of the UCC)
 - c. Workforce
 - d. In-scope patients / conditions / services
 - e. Equipment and costings
 - f. Location and fit out
 - g. Information sharing protocols.

Appendices

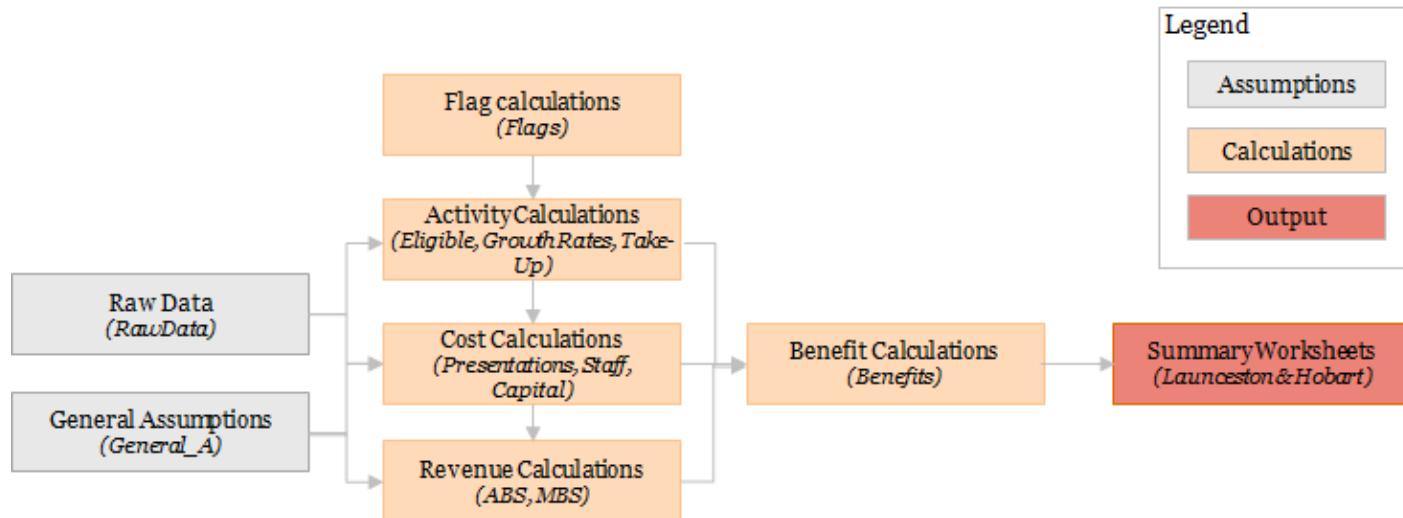
Appendix A Modelling methodology

Modelling methodology

General Limitations

- In order to align the feasibility assessment with the broader health service, activity projections provided by The Department have been utilised.
- The projections do not account for future changes to policy or models of care beyond which are known at the time.
- Variation above or below the figures is to be expected, as projections rely on the validity of the assumptions used and the data upon which they are based

The diagram below represents the high level structure and logic flow of the financial model:



Appendix B Model assumptions

Financial analysis

We estimated the financial sustainability of options 7a and 7b based on the model logic described below.

Underlying model logic for financial analysis

The model logic below illustrates the elements used to calculate the total cost of ownership (TCO) over a ten year period and net present value (NPV) of an Urgent Care Centre in Tasmania. The TCO determines the total cost of the UCC, inclusive of both fixed and variable cost elements. The NPV is a measure of profitability and represents the balance of cash flows over a period of time.

$$TCO_{Y_0} = \left[\begin{array}{c} \text{URG presentations} \\ (\text{Internal Projections}) \end{array} \right] \times \left[\begin{array}{c} \text{Average Cost per URG type} \\ (\text{Historical cost data}) \end{array} \right] + \left[\begin{array}{c} \text{Capital Expenses} \\ (\text{sourced data/assumption}) \end{array} \right] + \left[\begin{array}{c} \text{Operating Expenses} \\ (\text{sourced data/assumption}) \end{array} \right]$$
$$NPV = \left\{ \frac{\left[\begin{array}{c} \text{Total Revenue}_t \\ (\text{Model Calculations}) \end{array} \right]}{\left[\begin{array}{c} 1 + \text{Discount Rate}_t \\ (\text{Model assumption}) \end{array} \right]} \right\} + \left\{ \frac{\left[\begin{array}{c} \text{Total Revenue}_{t+1} \\ (\text{Model Calculations}) \end{array} \right]}{\left[\begin{array}{c} 1 + \text{Discount Rate}_{t+1} \\ (\text{Model assumption}) \end{array} \right]} \right\}$$

Additional elements utilised to support the analysis

Datasets utilised:

- **Activity** – 2013-2017 ED presentations for RHH and LGH
- **Population** – Publically available ABS data
- **Revenue/Funding** – IHPA NWAU activity based funding standards
- **Operating Cost** – FTE and other variable costs such as hotel and utilities
- **Capital Cost** – Infrastructure and Equipment costs

Detailed model assumptions (1)

To complete financial modelling; several assumptions have been built into the model; general assumptions are included in the table below; a detailed list of assumptions can be found in Appendix B.

Assumption	Explanation
Duration of model	The model for the feasibility study is built over 10 years; project costs are based on a working life of 10 years with an inflation rate of 1.9 per cent and discount rate of 3.7 per cent.
Model start date	The model allows 1 year for a detailed business case to be carried out and funding negotiations to occur. Construction, if required, will commence FY19/20, 6 months prior to the opening of UCC on 1 July 2020.
Currency terms	Figures included within the activity based cost and funding model are stated in 2017-18 values. This is achieved using appropriate inflation and deflation rates on the costing, funding and benefit inputs.
Inflation rate	The inflation rate of 1.9 per cent was used in this activity based funding model. This is based on a 5 year average inflation rate year on year.
Discount rate	The nominal discount rate of 3.68 per cent was used in this activity based funding model. This is based on the Queensland Treasury cost of debt, 5 year average rate for the Queensland Treasury Corporation 10 year bond.
UCC patient population	The UCC patient population includes non-admitted, CAT 3-5 presentations by URG. A 50% discount has been applied to CAT 3 presentations. CAT 1-2 URGs and any admitted URG's have been excluded.
UCC activity	Activity projections have been provided by the Department. For activity occurring in 'gap' years we have projected following a linear rate. 89 per cent of patient activity has been included; this activity presents during the UCC opening hours of 0800-2200. The redistribution of activity from ED to the UCC begins at 50 per cent in year 1 and increases to a capped maximum of 85 per cent by year 4. It is assumed these projections provided by the Department are accurate.
Capital cost	It is assumed that the capital infrastructure costs for a UCC includes both the construction and clinical infrastructure fit out. If construction is not required, the breakeven point will occur at an earlier date due to a reduction in the initial capital investment. The capital investment includes consultants and approvals; it does not include civil works, land value or infrastructure charges.
National efficient price (NEP) indexation	Activity revenue has been indexed according to IHPA methodology with an NEP indexation of 1.6% annually. The price of an NWAU has been included as \$4,910. Any subsequent detailed business case will require detailed assessment of the Tasmanian Health Service agreement with the finance and procurement department to determine any index specifications applicable to Tasmania.
Medicare schedule items	Medicare schedule items have been indexed according to Medicare indexation rates of 1.6% annually

Detailed model assumptions (2)

Assumption	Explanation
Eligible Medicare items	The following Medicare billing items have been used: 23, 36, 5020, 5040, 82210, 82205. A conservative assumption for diagnostics has been applied; with 20 per cent of patients receiving radiology and 15 per cent of patients receiving pathology.
Block funding	Block funding, as described in this report, pertains to the equivalent funding required to support ongoing annual operation costs of the UCC.
Labour on costs	A Labour on cost rate of 30 per cent has been applied
GP wage	The price point for a employed GP has been based on that of a salaried medical practitioner from the salaried medical practitioner agreement
Staff wages	Remaining staff wages has been priced according to workforce wages published by the Department of Health Tasmania
Staffing costs	Includes 30% on-costs which covers for annual leave, superannuation and shift penalties
Equipment costs	The cost of UCC equipment has been provided by the Department
UCC sq. m	The UCC sq m is based on the Australian health facility guidelines, each UCC is 442m ²
Construction costs	Construction costs have been based on previous PwC analysis and include both the basic build, clinical infrastructure and resource requirements. Capital costs exclude any purchase of land that may be required.
Contingency	A 10 per cent contingency has been applied to labour and non-labour costs, with a 20 per cent contingency applied to construction costs.
Non-labour costs	NHCDC cost per presentation of non-admitted activity have been used for non-labour costs for the UCC. A discount has been applied to pathology and imaging based on the applied assumption that the use of imaging and pathology would be reduced at a UCC

URGs included in analysis (1)

URG	CAT	Included
N-A_T3_Circulatory system and Endocrine, nutritional and metabolic illness	CAT 3	Yes, 50% deflation
N-A_T3_Injury	CAT 3	Yes, 50% deflation
N-A_T3_Genitourinary illness	CAT 3	Yes, 50% deflation
N-A_T3_Gastrointestinal system and Digestive system illness	CAT 3	Yes, 50% deflation
N-A_T3_Neurological illness	CAT 3	Yes, 50% deflation
N-A_T3_Respiratory system illness	CAT 3	Yes, 50% deflation
N-A_T3_Musculoskeletal/connective tissue illness	CAT 3	Yes, 50% deflation
N-A_T3_All other MDB groups	CAT 3	Yes, 50% deflation
N-A_T3_Illness of eyes	CAT 3	Yes, 50% deflation
N-A_T3_Blood/immune system illness/system infection/parasites	CAT 3	Yes, 50% deflation
N-A_T4_Other presentation block	CAT 4	Yes
N-A_T4_All other MDB groups	CAT 4	Yes
N-A_T4_Respiratory system illness	CAT 4	Yes
N-A_T4_Blood/Immune system illness/System infection/parasites	CAT 4	Yes
N-A_T4_Obstetric and Newborn/Neonate	CAT 4	Yes

URGs included in analysis (2)

URG	CAT	Included
N-A_T4_Gynecological/Male reproductive system illness	CAT 4	Yes
N-A_T4_Respiratory system illness	CAT 4	Yes
N-A_T4_Blood/Immune system illness/System infection/parasites	CAT 4	Yes
N-A_T4_Injury	CAT 4	Yes
N-A_T4_Urological system illness	CAT 4	Yes
N-A_T4_Circulatory system / Endocrine, nutritional and metabolic illness	CAT 4	Yes
N-A_T4_Gastrointestinal system and Digestive system illness	CAT 4	Yes
N-A_T4_Musculoskeletal/connective tissue illness	CAT 4	Yes
N-A_T4_Illness of the ENT	CAT 4	Yes
N-A_T4_Illness of the Eyes	CAT 4	Yes
N-A_T4_Other presentation block	CAT 4	Yes
N-A_T5_Injury	CAT 5	Yes
N-A_T5_Other presentation block	CAT 5	Yes
N-A_T5_All other MDB groups	CAT 5	Yes
N-A_T5_Circulatory system illness/Endocrine, nutritional and metabolic diseases	CAT 5	Yes

URGs included in analysis (3)

URG	CAT	Included
N-A_T5_Gastrointestinal system and Digestive system illness	CAT 5	Yes
N-A_T5_Illness of the eyes, ear, nose and throat	CAT 5	Yes
N-A_T5_Illness of the skin, subcutaneous tissue, breast/Musculoskeletal/Connective tissue illness	CAT 5	Yes
N-A_T5_Blood/immune system illness/system infection/parasites	CAT 5	Yes
N-A_T5_Obstetric illness/Newborn/Neonate	CAT 5	Yes
Did Not Wait	Did Not Wait	Yes
Adm_Return visit, planned w any Triage	Other	Yes
N-A Return visit, planned – Triage 3-5	Other	Yes

Note:

- Detailed consultation with stakeholders was carried out to identify eligible URGs to include in activity analysis and projections.

Appendix C Glossary of terms

Glossary of terms

Acronym	Definition
ABF	Activity based funding
ComRRS	Community Rapid Response Service
DoH	Department of Health Tasmania
DRG	Diagnosis Related Grouping
ED	Emergency Department
IHPA	Independent Hospital Pricing Authority
MBS	Medicare Benefits Schedule
PwC	PricewaterhouseCoopers Consulting (Australia) Pty Limited
NEAT	National Emergency Access Target
NPV	Net present value
NWAU	National Weighted Activity Unit
RNZCUC	Royal New Zealand College of Urgent Care

Acronym	Definition
TCO	Total cost of ownership
THS	Tasmanian Health Service
UCC	Urgent Care Centre
URG	Urgency Related Group
TCO	Total cost of ownership

Appendix D Risk matrix

Risk matrix

The below table outlines the risk matrix from the Tasmanian government used to define risks identified throughout this report:

Likelihood	Seriousness				
		Low	Medium	High	Extreme
Unlikely	N	D	C	A	
Likely	D	C	B	A	
Almost certain	C	B	A	A	

Appendix E Literature review

Identified urgent care centre options



1) UCC options that are co-located with a hospital



Option 1: An Urgent Care Centre located adjacent to a hospital with an Emergency Department
Name: Nelson Medical & Injury Centre
Location: Nelson Hospital
City: Nelson, NZ
Date of establishment: 2011



Option 2: An Urgent Care Centre co-located with an Emergency Department
Name: Ealing Hospital UCC
Location: Ealing Hospital
City: London, England
Date of establishment: 2011



Option 3: An Urgent Care Centre located within a hospital with no Emergency Department
Name: Mona Vale Hospital UCC
Location: Mona Vale Hospital
City: Sydney, AUS
Date of establishment: 2018



2) UCC options that are located in the community



Option 4: An Urgent Care Centre located in a primary health precinct
Name: Widnes UCC
Location: Widnes Healthcare Resource Centre
City: Widnes, England
Date of establishment: 2015



Option 5: An Urgent Care Centre located in the community (suburbia)
Name: St John Ambulance WA UCC
Location: 4 x Locations
City: Perth, AUS
Date of establishment: 2016



Option 6: An Urgent Care Centre located in the CBD
Name: Pegasus 24 Hour Surgery
Location: CBD
City: Christchurch, NZ
Date of establishment: 1987

Option 1: Nelson Medical and Injury Centre

- █ Clinical implications
- █ Commercial viability
- █ Ease of implementation

New Zealand Healthcare System

Funding is devolved by the NZ Ministry of Health to 20 District Health Boards (DHBs) who govern, purchase and/or provide health and disability services for their geographically defined populations. DHBs own and operate secondary and tertiary hospitals and purchase community services from private providers. DHBs fund primary care through Primary Health Organisations (PHOs) which contract general practice and other non-government providers to provide services.

Medical and Injury Centre - Nelson, New Zealand South Island

The Nelson Medical and Injury Centre is situated within Nelson, which has a population of 51,000. It is situated adjacent to, but operates as a distinct entity from, the city's main public hospital, Nelson Hospital (264 beds). The Medical and Injury Centre is an equal Joint Venture between the Nelsons Bay Primary Health Organisation (NBPHO) and Nelson Bays General Practitioners Ltd (the General Practice Network in the Nelson region). The Injury and Medical Centre is an approved RNZCUC Urgent Care Centre supplier and an approved facility for Urgent Care medical training, as well as an approved site for providing accident services (ACC).

Service model

Opening hours: 8am – 10pm, 7 days per week.

Process for patient arrival:

- **Via walk-in:** UCC operates on a 'walk-in' no appointment system. Triage occurs on arrival, with patients receiving all assessment by a Registered Nurse, and treatment by Doctors. Patients presenting with conditions out of scope of the UCC model (as per the clinical exclusion criteria) are referred to a facility with a higher level of care; most likely the Nelson Hospital Emergency Department.
- **Via secondary triage from St John Ambulance service:** Pilot program established in 2017; contract project between the MIC, Nelson Marlborough DHB and St John to send patients to the MIC instead of Nelson Hospital ED. If obvious the patient has a simple, low acuity problem, patients triaged to the MIC with no pre-notification. If the patient has a more complex problem (or unsure whether a referral is appropriate), patients will be assessed by the triage nurse or a GP over the phone, and determine if they can treat at MIC, or if they need to go to the ED (next door) or their own GP. By September 2017, the pilot had resulted in a shortfall of funding to MIC and St John, as the DHB funding model did not cover the increased workforce cost required.¹ The August 2018 board Meeting outlined the continuation, expansion and funding of ED/St John redirect.² **No information as to whether inappropriate patient presentations are audited.**
- **Via referral from the Nelson Hospital Emergency Department:** Patients are referred from ED to the MIC. From 1 July 2018, Nelson Hospital ED has transferred every appropriate primary care patient to their GP, home or to the MIC from 8am - 9.30pm.³ **All referrals are audited for inappropriate patient presentations.**

Clinical inclusion criteria (not exhaustive):⁴ soft tissue injuries, wounds requiring suturing or dermaplast glue, dehydration (not hypovolemic shock) requiring IV fluid, mild/localised cellulitis, respiratory infections without severe respiratory distress, mild to moderate asthma or COPD, lower UTI with mild symptoms and normal vital signs, abdominal pain, headache or back pain without symptoms or signs outside of the mild to moderate scoring system, concussion without loss of consciousness, abnormal Glasgow Coma Scale or seizure following the injury, minor allergy without signs of systemic involvement, isolated simple fractures not involving a long bone (e.g. hand, foot, digits, forearm), seizures, provided the patient has known epilepsy, has recovered to their usual post-ictal state and no midazolam has been administered.

Clinical exclusion criteria (not exhaustive): The MIC has a list of symptoms that cannot be treated at the centre.⁴

Diagnostic/additional services:

- **Diagnostics:** Done on site by MIC (ie bloods), with results returned to the MIC
- **Fracture clinic:** Opened August 2018³
- **Facilities:** 3 consulting rooms, a procedure room, a nurse consult room and a triage area with two beds
- **Walk-in Urgent Care Service:** MIC has an ACC Urgent Care Contract (New Zealand's no-fault accidental injury service).

Option 1: Nelson Medical and Injury Centre

- █ Clinical implications
- █ Commercial viability
- █ Ease of implementation

Location and transition drivers

Adjacent to the Nelson Hospital Emergency Department, in a stand-alone building.

The Medical and Injury Centre was opened adjacent to the Nelson Hospital ED in 2011 as an amalgamation with all other General Practices in the region. It replaced the *Nelson Region After-Hours and Duty Doctor*, opened in 2007, which was previously located on a site located 300m away from the ED. Transition drivers for co-locating the MIC with the ED included, amongst other things, the old facility no longer being fit for purpose (ie only having individual consulting rooms), and not having the physical capacity to deal with peak times such as Christmas. Whilst consideration was given to relocating to Richmond (population of 14,000, 13km south of Nelson but more central to other general businesses), the transition driver of establishing the MIC was to remain close to the ED and retain its Very Low Cost Access status, as cost of care was seen as a significant driver for patients presenting to ED rather than to their GP or to MIC. This was especially important for the MIC, given the large Māori population which use their services, as studies have identified that financial costs, a lack of after-hours provision, appointment availability and lack of transport are the main drivers to access primary care, and result in Ambulatory Sensitive Hospitalisation conditions for Māori people in NZ.⁵ Currently, MIC is the only accident and medical centre in Nelson that operates 8am - 10pm 7 days per week.

Patient cohort

"You can see us for any urgent medical issue that you would otherwise see your GP for, as well as accident related injuries such as sprains or cuts." Purpose of MIC is to **"provide a duty doctor and out of hours service (best practice urgent GP care)".⁶**

Workforce

Nelson Bay PHO provide administrative and staffing support, while the Nelson Bay GPs provide clinicians from the general practices within the region:

- 13 x Registered Nurses
- 1 x Nurse Practitioner (increasing to 7 days a week, currently no weekend cover)
- 1 x Clinical Nurse Leader
- 6 x Reception Staff
- 1 x Medical Director
- 1 x Practice Manager
- 6 x GPs (mix of member and permanent GPs - speciality trained in General Practice and accidental related medical care).
- **New in 2018/19:** 1 x PHO Social Worker onsite every fortnight, 1 x Healthcare Assistant, 1 x VLCA patient advocate (looking at getting other families to access service).³

GP Roster: available 8am-10pm 365 days per year, with a GP on call from home 10pm-8am (new in 2018).³

NP Scope of practice: Authorised prescribing, Work Capacity Certificates/ACC 18/OWC, order and interpret lab tests/minor limb injury x-rays requests/USS, certify cause of death and issue death certificates.

Reported challenges with NP role: Role awareness, cover for leave, peer review, isolation, District Health Board/NZ Nurse Organisation Multi-Employer Collective Agreement (MECA).³

RN Scope of practice: Triage (Australasian Triage System) + ED Practice Nurse - reported as working to top of scope. ED /NZRC Core Advanced Level 6, IV, NIXR, Suturing, Plastering Standing Orders, cervical smears, immunisations, sexual health, wound care, spirometry.

Reported challenges with RN role: Skill mix, education funding/time developing relationships with ED/St John.³

Benefits of secondary triaging: time released for staff through diversion of patients to MIC has reportedly allowed ED staff to complete more training, in addition to availability of ED staff to conduct training (ie Nurse Initiated x-ray training for upper and lower limbs).

Option 1: Nelson Medical and Injury Centre

- Clinical implications
- Commercial viability
- Ease of implementation

Governance

As part of the Nelson Marlborough DHB's commitment to Government's Priorities (as outlined in the *Health Minister's Letter of Expectations for DHBs*), the 2017/18 Annual Report includes a number of key responses to the 'Shorter Stays in Emergency Departments' priority;⁸ one of which included formalising relationships between the Nelson Hospital ED and MIC and establishing information sharing. Milestones for this outlined as:

- Regular bi-monthly ED and Medical Injury Centre clinical meeting
- Agreement on primary care after hours extension
- Clear ED redirection policy implemented and audit completed
- Review of health pathways that result in ED as the destination
- Active management of frequent presenters to ensure they are engaged with affordable care.

As of July 2018, the ED and MIC have developed a 'working together' ethic towards patient care, including the implementation of a monthly meeting between ED CNL and the MIC team leader, as well as formalising a redirection policy (funded by the DHB), which is audited.² MIC clinical staff have also started to attend the orthopaedic Friday meeting at the hospital. There is no information available as to the governance arrangements for the Joint Venture partnership.

Commercial model

There was limited information related to funding arrangements found in the public domain, specifically relating to the breakdown of revenue from the Joint Venture. However, in 2017/18, the Nelson Bay PHO reported a surplus to budget of \$55,763.00 for their individual share of the equal joint venture.⁸

Costs

To the patient: MIC operates as a *Very Low Cost Access* practice, which means they provide GP and primary health care to enrolled patients with reduced fees Mon-Fri 9am-5pm. Prices dependent on time of day, and whether the patient is enrolled or not (ie enrolled - \$17 M-F daytime and \$75 afterhours, not enrolled - \$65 M-F daytime and \$75 afterhours). MIC has also worked with NM District Health Board to establish a 'voucher system', which allows ambulance personnel to take patients to MIC free of charge. For enrolled children under 13, free all times. The Fracture Clinic is provided at no costs to patients.

Operational costs: No definitive information - staffing jointly funded by the PHO and Nelson Bay GPs.

Capital costs: No definitive information - MIC is located in a Nelson Marlborough District Health Board building.

Evaluation of UCC

Over the last 5 years, there has been a significant increase of primary care in the region, manifesting in a large number of patients being diverted from the ED and to their GP or MIC.⁹ The better integration of triage services between MIC and the ED, as well as the establishment of the ambulance voucher system has helped to reduce ED presentations. Eight nurses have completed their Nurse Initiated x-ray Training, with 48 x-ray initiated by Nurses in less than 2 months.³ However, challenges are quoted as including that despite the central location of the MIC, there are still people in the community that are not aware of the services the MIC provide.¹ Others include keeping a sustainable workforce, the need for more space, keeping the ED relationship ongoing and the mixture of Urgent Care and VLCA patients.

2017/18 review:²

- 26,686 presentations (24,348 in 2016/17)
- Increase in after-hours presentations
- 3,567 were Very Low Cost Access presentations
- VLCA enrolments capped at 1,200 (73 per cent have high health needs)
- 7,161 ACC presentations (5,930 in 2016/17)

5 year review:³

- ~ 50% increase in casual presentations in the last 5 years (15,500 to 23,200)
- ~ 300% increase in ACC presentations in last 5 years (1,700 to 7,200)
- ~ 50% increase in Nurse / NP consultations in last 5 years (2,739 to 4,044)
- ~ 30 presentations per month from ED/St John redirect pilot July 17 – June 18. Patients redirected to MIC when ED in Orange or Red.

Long-term strategic initiatives for MIC include conducting observation/procedural services, a teaching practice, servicing residential aged care, introducing a health care assistant for allied health, and introducing strategic planning meetings between the DHB, ED, Ambulance Service and Hospice.³

Option 2: Ealing Hospital UCC

- █ Clinical implications
- █ Commercial viability
- █ Ease of implementation

Ealing Hospital Urgent Care Centre - Ealing, North-West London, England

Ealing Urgent Care Centre (18.2km from London Central) is co-located with the Ealing Hospital A&E (Emergency Department), and has been in operation since 2011. It is a 24/7, GP-led service that treats minor illnesses and injuries, treating on average 66,000 patients a year. Greenbrook Health has been the commissioned service provider since April 2016, and has been rated as “good” by the independent Care Quality Commission, with one of the five assessment subcategories rated as “outstanding”.¹ It is now rated as one of the best UCCs in London.

Service model

Key principles:²

- UCC acts as first point of contact for all ambulatory patients presenting at Ealing Hospital with unscheduled care needs
- Adults and children assessed and treated at the first point of contact capable of meeting immediate needs
- UCC has essential role in managing people with minor illnesses to avoid inappropriate pressure on ED
- Patients attending who do not have urgent care needs must be supported to access care from a pharmacist or their own GP; use of UCC as alternative to GP undermines sustainability of system
- Use a ‘see and treat’ approach where possible, with protocols to ensure fast track where necessary
- UCC and ED work in partnership to ensure integrated and seamless care pathways for patients
- UCC and ED processes will generally operate separately with minimal interference to each other

Operating hours: Twenty-four hours per day, seven days per week, 365 days per year.

Process for patient arrival

- **Via walk-in on own accords**
- **Patients who have contacted a service (ie NHS 111, GP out-of-hours service) and have been asked to attend:** GP OOH service can make booked appointments
- **Those with the 20 presenting conditions agreed with London Ambulance Service for direct referral to UCC**
- **Patients brought in by ambulance with minor illnesses and injury in wheelchairs, or on a trolley but are capable of walking/moved in wheelchair**

UCC patient streaming completed within 20 minutes of arrival for adults (15 for children). All patients assessed, treated and discharged within the national 4 hour limit. UCC expected to make all ‘see and treat’ decisions (ie if no need for triage due to UCC being quiet, or no need for diagnostics or investigations) within 60 minutes, with patients requiring transfer to the ED being transferred within 120 minutes.²

Clinical inclusion criteria: Ankle injury, wrist injury, minor head injury, elbow injury, burns and scalds, bites and stings, wounds & lacerations, rib injury, digit injury, eye conditions, upper respiratory tract infection, skin complaints, minor allergic reactions, earache, lower back pain, vomiting, urinary tract infection, sore throat.²

Clinical exclusion criteria: Ealing Hospital UCC has developed a strict clinical exclusion criteria.²

UCC has access to diagnostics and investigations at Ealing Hospital (ED), and must be returned within 1 hour of being taken (via the Diagnostic Cloud and SystmOne systems) – but, only provided where deemed necessary for immediate treatment in the UCC or likely to prevent a subsequent admission to the hospital:

- ECG: Pulse oximetry
- Bloods (plus other tests with turnaround within the episode/real time access): Full blood count, D-Dimer, ESR, CRP, LFT, INR, Urea and electrolytes, etc
- Tests with longer turnaround: Urine, stool, throat/wound swabs, etc
- Radiology (initial report back in 1 hour/radiologist review within 24 hours): Plain film for limbs and chest, ultrasound, X-ray
- Ophthalmology: slit lamp assessment.

Option 2: Ealing Hospital UCC

- █ Clinical implications
- █ Commercial viability
- █ Ease of implementation

Service model (continued)

Discharge: Discharge summaries to GP practices by 8am the following day.

Technology: Use of SystmOne, which has full interoperability with other Ealing NHS health systems (all GPs in the area also use this system).

Three-bay paediatric observation unit: No paediatric inpatient beds at Ealing Hospital since June 2016; UCC now provides an emergency paediatric service and manages paediatric transfers to other sites for difficult cases (avg 1/day). Review has found services are being underutilised.³

Location and transition drivers

Ealing UCC is located in a space adjacent to the Ealing Hospital Emergency Department, which has a joint triage system.

Service specification for UCC developed through clinical engagement - the Urgent Care Centre Procurement Steering Group and the Clinical Executive of the Ealing CCG. Direct patient engagement undertaken during development of the specification with feedback incorporated. In developing the UCC, the aim was to deliver a seamless service and to ensure transfers between services are smooth, and patient information is well communicated, leading to a better patient experience. Reports suggest that the population has a good understanding of the scope of services provided at the UCC.¹

Patient cohort

All-aged patients who are 'ordinarily resident' in the UK. The UCC patient cohort generally comes from within the Borough, with the UCC having the greatest proportion of attendances by people who live within the host Clinical Commissioning Group area.

Workforce

The UCC is led by a UCC Service Manager, a UCC Lead GP and a UCC Lead Nurse who have oversight of the UCC and a team of UCC doctors/nurses, care practitioners, paediatric nurses and administration and reception. As part of Service Agreement, UCC is able to define its workforce structure. However, the minimum levels of cover requires the UCC to be staffed by the following at all times:

- 1 x doctor
- 1 x emergency nurse practitioner or emergency care practitioner

There are also minimum staff competencies for each clinical area (ie diagnostics - interpret simple X-rays).

Paediatrics: 24-hr paediatric nurse cover and 9-hr GP cover.

Patient Champion: UCC is aware that it has a large number of repeat attendees, some of these patients are not registered with a GP.¹ The patient champion works to identify those patients that require help registering with local GPs to ensure they receive the care they require.

Access to specialists: Greenbrook responsible for working with Ealing Hospital clinicians, or elsewhere within LNWHT (Ealing Hospital ED), to put in arrangements for remote specialist input.

Nursing staff are employed via the London Northwest Health Trust (acute trust) and all other clinicians directly employed by Greenbrook Healthcare (Salaried or Sessional GPs). There are draft proposals to move nurse recruitment from the acute trust to Greenbrook Healthcare.¹

The UCC is required to ensure all staff have access to appropriate clinical supervision for training, with staff rotated through Ealing Hospital ED engaged in joint training with the ED to facilitate mutual understanding of services. To ensure staff work to full scope of practice, competency frameworks have been developed.

Option 2: Ealing Hospital UCC

- Clinical implications
- Commercial viability
- Ease of implementation

Governance

Accountability: Greenbrook Healthcare provides the centralised governance for the service contract; accountable to Ealing CCG as commissioners of the service - responsible for performance, clinical and financial management, and be a full and active participant in the Urgent Care Board.

Clinical Governance: A local, designated clinical director has responsibility for practice of all staff that treat patients autonomously; plus responsibility for care pathways.

Integrated clinical governance – operates via formal governance mechanisms and strong informal working relationships – ie:

- **Partnership with ED:** Includes oversight through a single Joint Governance Group which meets monthly, with parties working to agree how integrated clinical governance will work across UCC and ED. CCG able to join meetings as required.
- **Joint Clinical Governance:** A Joint Governance Group includes clinicians from UCC, Ealing Hospital, Ealing CCG and West London Mental health NHS Trust - “UCC Partnership Board” - meets weekly - will a) create and review Joint Clinical Policy, b) conduct service audits focusing on outcome based quality care, c) review learnings. The committee reviews all incidents, with no incident actioned as closed until the evidence of action taken is reviewed by committee.¹
- **Patient transfers:** Whilst the *Service Specification* mandates clarity with regard to governance arrangements for patient transfers, there is no information in the public domain.

Serious Untoward Incidents (SUI) are reported to the CWHHE Director of Nursing, Quality and Patient Safety.

Commercial model

Public/Private - The **public service** is commissioned by NHS Ealing CCG, and provided by a consortium led by **Greenbrook Healthcare** (private primary healthcare provider), **London North West Healthcare NHS Trust** (who operate the Ealing Hospital Emergency Department, and the **London Central and West Unscheduled Care Collaborative** (the provider of GP out of hours care in the Ealing borough). Operating under the NHSE Standard NHS Contract, the core contract is for a maximum period of 5 years, with a formal review period (with an option to break) at the end of year 3 or at the end of year 4. The notice period is 12 months.

Funding: Greenbrook as the service provider makes a bid price to run the service for the contract length (see above); this is the extent of payments from CCG to the UCC provider. However, tendering process mentions an annual incentive scheme worth potentially 2.5% of the core contract price, minus the pass-through costs such as premises.⁴

Costs

Costs to patient: Free

Operational costs: No precise amount - however, 5-year bid price tendered by Greenbrook Health approved as within the published contract envelope: minimum £19,463,580 and maximum £21,298,420.⁴

Capital costs: No precise amount - however, costs relating to premises and associated services for 2016/17 (which were not part of the bid costs) are £550,000 per annum (indicative - pending final confirmation of signed linked-tenancy agreement between ED and UCC for use of premises and associated support services - ie catering, cleaning, utilities, etc.).⁴

Additional Capital Costs: (Indicative) costs relating to redevelopment of patient reception area (£12,500 - funded by Ealing CCG) and replacement of defective furniture/equipment (£9,000) - both of which were not part of the bid costs.⁴

Cost negotiation between ED and UCC facilitated by CCG Head of Strategic Estates Development to direct them towards agreeing a fair market value rent.

Option 2: Ealing Hospital UCC

- █ Clinical implications
- █ Commercial viability
- █ Ease of implementation

Evaluation of UCC

KPIs: UCC accessed against a detailed list of KPIs that are assessed against each month.⁵ Should these not be met, financial penalties are applied.⁴

Greenbrook has agreed to an '**open book' approach** whereby information around the service performance is shared on an operational basis, notwithstanding the need to report KPIs on an agreed schedule. The 'open-book' is not intended to blur the lines of responsibility; rather, Ealing CCG will have a greater level of transparency on costs and performance than in traditional contractual arrangements.

Outcomes Evaluated: Care Quality Commission Report¹

1. Are the services safe? **Good**
2. Are the services effective? **Good**
3. Are the services caring? **Good**
4. Are the services response to people's needs? **Outstanding**
5. Are services well-led? **Good**

Impact on patient satisfaction: Data from January - March 2017 showed:

- 94 per cent found the receptionist professional and helpful.
- 97 per cent found the nurse they saw to be professional, helpful and caring.
- 75 per cent found that they had been given enough time to ask questions about their condition and treatment.

Most recent reported outcomes of Ealing UCC (March 2018):⁶

1. Performance:

- **Attendances:** treated 5,707 patients, slight increase on February (5,281)
- **Performance against 4 hour wait:** averaged 98.8% for the month
- **ED streaming:** 476 (8.3 per cent patients were streamed to ED and a further 238 (4.1 per cent were referred to ED after receiving treatment in the UCC
- **Triage times:** 99.7 per cent of adults in 20 minutes, 97.4 per cent within 15 minutes.

2. Quality, Patient Safety and Safeguarding:

- No Serious Incidents
- 31 incidents reported over Feb-March; all resulted in 'no harm' incidents primarily related to transfer of patients to/from ED.
- Six patient/user complains received
- Friends and Family Test: returns collected (N = 281), 90 per cent would be either Extremely likely or Likely to recommend the service.

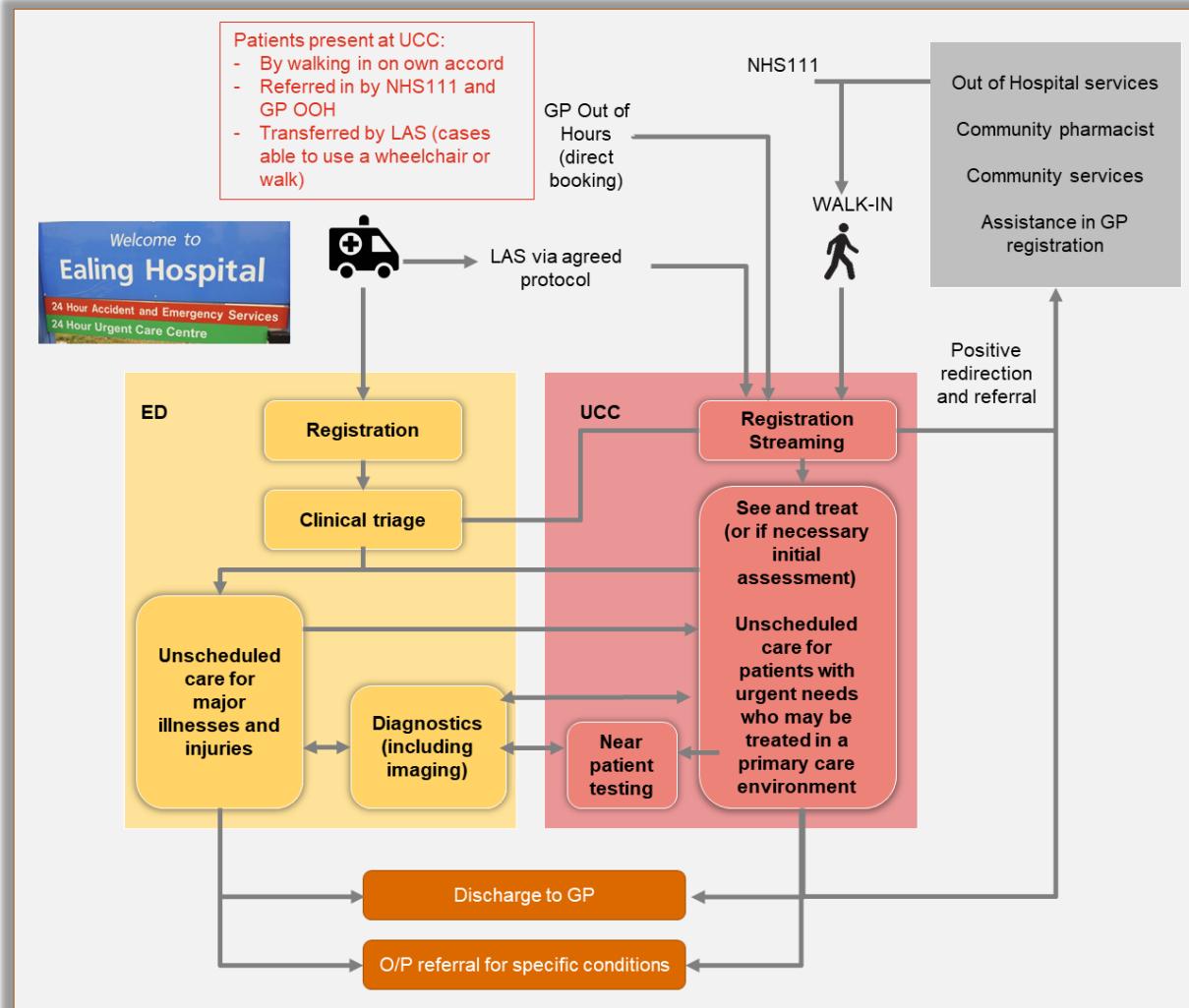
3. Patient Champion:

- 160 patients assisted to register with GP (Feb-March)
- 238 patients successfully redirected to their GP/Community Services for treatment (Feb-March).

Impact on A&E: In 2014/15, about 60 per cent of patients presenting for urgent and emergency care at Ealing Hospital were treated in UCC.

Option 2: Ealing Hospital UCC

- █ Clinical implications
- █ Commercial viability
- █ Ease of implementation



Ealing Hospital UCC process flow map

Option 3: Mona Vale Hospital UCC

- Clinical implications
- Commercial viability
-

Mona Vale Hospital Urgent Care Centre - Sydney Northern Beaches, Australia

Mona Vale Hospital (MVH) is situated within Sydney's Northern Beaches, 30.8km from the Sydney CBD. As part of the Northern Beaches Health Service redevelopment (which opened on 31 October 2018), it was announced by the Northern Sydney Local Health District (NSLHD) in June 2018 that the hospital would be redeveloped. As a result, MVH ceased all acute services delivery from 31 October 2018, and assumed a rehabilitation, aged care, palliative care and community health focus. Acute services were transferred to the nearby Northern Beaches Hospital (NBH).

Services remaining on the MVH site include:

- the 56 bed inpatient Assessment and Rehabilitation Unit
- the Community Health Centre (ie antenatal, postnatal, mental health, renal dialysis, clinics, chronic disease and community rehabilitation services
- a Community Palliative Care Unit
- Hydrotherapy
- a 10 bed Inpatient and Outpatient Palliative Care Unit (construction commencing late 2018)
- a 10 bed inpatient Geriatric Evaluation & Management Unit (construction commencing late 2018)
- **The establishment of an urgent care centre in replacement of the ED (opened 31 October 2018).**

Service model¹

Opening hours: Twenty-four hours per day, seven days per week, 365 days per year.

Process for patient arrival: UCC operates on a 'walk-in' no-appointment system. Triage occurs on arrival, with patients receiving all assessment (by medical practitioners), investigations, and treatment within 60 minutes. Patients presenting with conditions out of scope of the UCC model (as per the clinical exclusion criteria) require early identification and transfer to the Northern Beaches Hospital 12.6km away) or Royal North Shore Hospital (25.1km away) according to agreed transfer policies. Options for transfer methods include private transport, non-emergency patient transport (provided by Mona Vale Hospital) and ambulance.

Clinical inclusion criteria: Bruises or scratches, minor cuts needing stitches or glue, minor sports injuries, strains or strains, bites or stings, minor head injuries, broken bones, skin infections, minor burns or scalds, earache, wound review, foreign body (eg swallowed, in nose or ear), facial pain, migraine, sore throat, sore or red eye, mild abdominal pain, rash, mild asthma or chest infection, minor illnesses including fever, infections and rashes, urinary tract infections, plastering / suturing.

Clinical exclusion criteria: Mona Vale UCC has developed a strict clinical exclusion criteria.

Diagnostic/additional services are easily accessible to all patients, and are provided by Mona Vale Hospital:

- **Pharmacy:** Provided to UCC as part of statewide 'hub and spoke' service (Hub at Hornsby Hospital; 24.7km away and spoke at Mona Vale). A Pharmacist and Pharmacy Technician are employed at Mona Vale, who provide initial doses of some drugs, but not ongoing prescriptions.
- **Onsite Medical Imaging:** Provided to UCC by NSLHD Medical Imaging District Services via one fixed general radiology unit and two mobile x-ray units. Radiographer on-site 8am-8pm Monday to Sunday.
- **Pathology:** Provided to UCC by NSW Pathology; limited Point of Care testing is available, with an accessible collection centre within the UCC.

Process for ongoing care: Patients are discharged from the UCC for follow-up treatment with their general practitioner within 60 minutes of arrival.

Technology: The UCC uses the same electronic medical records (EMR) system as hospitals within the NSLHD, with all patients automatically discharged from the system at midnight. The system ensures interoperability with the NBH and an ability to view (only) records and results. No information relating to telehealth was found in the public domain.

Patient throughput: Estimated that the UCC will see 10,000 - 13,000 presentations per annum (35 presentations per day), with each CMO seeing 8-9 patients per shift.



Option 3: Mona Vale Hospital UCC

- █ Clinical implications
- █ Commercial viability
- █ Ease of implementation

Location and transition drivers

Mona Vale Hospital UCC is located in Sydney's Northern Beaches, and is accessible via public transport (bus stop opposite the hospital). The UCC is located within the hospital, on the previous ED footprint which has recently been refurbished to provide consulting rooms and a reception area. A purpose built UCC will be commissioned in the first quarter of 2019 in the vacated ED.

Whilst Mona Vale's ED presentations only increased by 0.1% between Jan-March 2017 to 2018 (increase of 245 admissions),² one year prior to the decommissioning of the ED, all other sites across NSLHD continued to experience an increase in ED presentations of between five and eight percent from July 2017 to May 2018.³ Majority of ED presentations from Jan-March 2018 (three months prior to decommissioning of ED) were T4 (Semi-Urgent) (3,513 out of 8,700 total ED presentations), with 2,696 admitted to ED.

Patient cohort

The Mona Vale UCC treats non-complex, low acuity patients with minor injury and illness not requiring hospital admission, with the intent to see and treat most patients within 60 minutes. The in-scope patient cohort includes patients who are ambulant, or assisted by family/carer vehicle, who do not require admission and are generally local Northern Beaches residents or living in the area. Patients are self-referred to the UCC

Workforce

The workforce is senior doctor-led, consisting of doctors (Career Medical Officers), Registered Nurses and physiotherapy staff, who are all employed by the Northern Beaches Health Service.

Workforce:

- CMO (Emergency Speciality): 9.9 FTE (staffed by previous Mona Vale Hospital ED clinicians).
- Registered Nurse: 10.6 FTE
- Physiotherapist (Level 4): 1.5 FTE
- Administration Officer (Level 3): 4.5 FTE

Rosters:

- 2 x CMOs working from 8am - 6pm
- 2 x CMOs working from 1pm - 11pm
- 1 x on-site CMO available 'on call' from 11pm - 8am; in addition to supervising UCC, responsible for overnight clinical reviews from Aged Care Rehabilitation Unit
- 2 x Registered Nurses on duty per shift 24/7
- 1 x physiotherapist, 7 days a week (weekend shifts 10am - 6.30pm to accommodate the large number of minor sporting injuries that currently present to the hospital)
- Administration support 8am - 11pm, 7 days a week (also assist with administration for Medical Imaging).

Medical scope of practice: CMOs responsible for assessment of patients presenting, coordinating and facilitating diagnostic, management and discharge, coordinate transfer of patients. Scope of practice includes the ability to independently manage all patients presenting to UCC, venous blood gas and other pathology as required, plastering, and suturing. The CMO is also responsible for education and training as required for nursing and allied health staff.

Physiotherapy scope of practice: Musculoskeletal injuries with minor skin tear/abrasions, casting and plastering, ordering x-rays (collaborative review with medical staff), isolated soft tissue injuries, closed peripheral fractures, spontaneously reduced dislocations

Option 3: Mona Vale Hospital UCC

- █ Clinical implications
- █ Commercial viability
- █ Ease of implementation

Governance

There was limited information relating to governance found in the public domain (ie processes for incident reporting and analysis of adverse events, clear escalation processes for patient safety issues). Information pertaining to role delineation is limited, but suggests that UCC staff report to the Mona Vale Hospital General Manager for administrative issues, and the Director of Medical Services for clinical issues, who is responsible for monitoring performance.

Commercial model

Funding for the UCC is provided by the North Sydney Local Health District, and outlined in the 2018-19 Facility Budget Expenses document.⁴

Costs

To patient: The UCC will be a bulk-billing service for all patients who present with a valid Medicare Card.

Capital costs: Capital funding for the Mona Vale UCC development has been allocated in the 2018 Service Agreement; an agreement between the Secretary NSW Health and the Northern Sydney Local Health District for the period 1 July 2018 - 30 June 2019. This is outlined below:⁵

	BP2 ETC 2018/19 \$	Estimated Expenditure to 30 June 2018 \$	Cost to complete at 30 June 2018	BP2 Allocation 2018/19	BP2 Est 2019/20
Northern Beaches - Mona Vale Hospital & Community Health	\$600,000,000	168,131,773	431,868,227	404,067,760	27,800,467

Operational costs: Whilst total funding requirements for the hospital have been projected,⁶ the operation costs of the urgent care centre will become clearer as the service develops and is reviewed after 12 months.

Evaluation of UCC

There is no defined process for service evaluation, nor has there been any (projected) patient outcomes. However, publicly available information indicates the UCC will be reviewed after one year to determine appropriateness of its twenty-four/seven operating hours.

Implementation considerations

There was significant concern following the announcement of the closure of the ED by the community, especially around the concern of travel time from the UCC to the Northern Beaches Hospital. Proposal to address this have included implementing an Ambulance Station at MVH.

Option 4: Widnes UCC

- Clinical implications
- Commercial viability
- Ease of implementation

Widnes Urgent Care Centre - Widnes, within the Halton borough, North-West England

Widnes Urgent Care Centre is located in the town of Widnes (industrial town in NW England, population of 60,000), adjacent to the town of Runcorn on the opposite side of the river (3.7km away). Both are situated within the Halton borough. The Widnes UCC is located within the Widnes Healthcare Resource Centre, located within the Widnes CBD, and located 10.1km from Whiston Hospital (ED) and 10.8km from Warrington General Hospital (ED) (both within Widnes), and 6.4km from Halton Hospital (in Runcorn, where a 'sister' UCC is co-located with the Halton Hospital ED). The NHS Clinical Commissioning Group is responsible for commissioning services for the 125,700 residents, with the Bridgewater Community Healthcare NHS Foundation Trust (Bridgewater) operating the Widnes UCC.

Service model^{1,2}

Opening hours: Monday – Sunday 7.00am - 10.30pm (accepting patients until 10.00pm), 365 days per year. During the 30 minutes before closing, patients will be assessed but may be referred to their GP, Out-of-Hours GP, or the ED at Whiston Hospital or Warrington General Hospital.

Process for patient arrival:

- **Via walk in:** UCC operates on a 'walk in' no-appointment system.
- **Via secondary triage:** UCC Kite Marked with the North-West Ambulance Service and are able to accept patients (both chair and stretchered patients) in line with its Paramedic Pathfinder protocol from 8am – 8pm, 7 days a week.*

Clinical inclusion criteria:

- **Minor illness:** sore throats, rashes and allergic reactions, bites or stings, coughs and colds, emergency contraception
- **Minor injury:** minor cuts or wounds, muscle or joint injury (sprains and strains - which are occurring through recognisable patterns - ie increase in sports related injuries for 11-14 year olds on weekend mornings), minor burns or scalds, eye injuries and infections
- **Clinical Assessment Unit:** Diagnostic bloods, X-Rays, USS, Doppler, ECG, AF Clinic, Acute Warfarin Initiation
- **Observational bays (up to 4 hours):** has reduced the number of zero hour admissions at local ED.

Clinical pathways:

- **Adult Pathways:** suspected deep vein thrombosis (DVT), suspected pulmonary embolism (PE), adult asthma, exacerbation of chronic obstructive pulmonary disease (COPD), rib injury, diabetic patients (hyperglycaemic), diabetic patients (hypoglycaemic), headache in adults, abdominal pain, syncope (collapse), low risk cardiac chest pain (non-pleuritic & non traumatic), head injury.
- **Paediatric Pathways:** diarrhoea and/or vomiting, asthma, febrile, urinary tract infections (UTI), bronchiolitis, head Injury.

Diagnostic/additional services provided at UCC:

- **Pathology:** access to a range of tests (some at Point of Care); bloods taxed to Halton and Warrington Pathology; provide results of tests within 90 mins of receipt, 365 days a year.
- **X-ray:** on-site; 8.00am - 10.00pm, 365 days a year.
- **Ultrasound:** on-site; 9.00am - 5.00pm Monday to Friday, off-site; Saturday/Sunday/Bank Holidays; provided at either Warrington (10.5km) or Whiston Hospitals (16.3km away)

Process for ongoing care:

- **GP:** Follow-up appointments are not provided unless deemed necessary, with the patient's care and treatment plan sent to their GP by 8am the following morning.³
- **Hospital services:** Onward patient referrals to other hospital services are not generally provided, unless necessary as part of any additional treatment required. If required, transport would be provided by the UCC, but if patients can provide own transport this is encouraged. The total number of people who have attended the UCC and required onward referral to a Type 1 ED from October 2015 - September 2016 is 1,149, or 3.4 per cent of those who attended, compared to 3.3 per cent when the UCC was a walk-in-centre.

Technology: EMIS implemented across both UCCs

Option 4: Widnes UCC

- Clinical implications
- Commercial viability
- Ease of implementation

Location and transition drivers

Location: In a community setting in the same building as 3 GP practices and a GP out of hours service - 'Widnes Healthcare Resource Centre'

Transition drivers: Widnes Urgent Care Centre was established following an Urgent Care Centre review carried out by NHS Halton Clinical Commissioning Group commissioning intents for 2012/13. This included:³

- A review of a previous business case for an Urgent Care Centre
- A review of information on use of Urgent Care services by Halton residents
- A review of national and local priorities and intentions
- An audit of the Widnes Walk in Centre
- An audit of the Runcorn Minor Injuries Unit
- the development of an Accident & Emergency (A&E) questionnaire, which found that only 25 per cent of patients felt that A&E was the most appropriate place for treatment of their condition.

A UCC on the pre-existing walk-in-centre site was deemed to be the most suitable fit, with Widnes having the one of the lowest levels of car ownership in England, the closest ED being eight miles from the WIC, and the underutilised space in the pre-existing Widnes Health Care Resource Centre (HCRC). The HCRC was identified - to reduce unwanted NHS infrastructure (the building being on a 25-year lease to the NHS), reconfigure the remaining space and offer a holistic patient care. The UCC was also determined the most appropriate option to deal with the response to an increase in attendance at two emergency departments which were located outside the local area, provide access to urgent care services closer to home, and to improve the wellbeing of the local community through the Healthy Town program.⁴

The aim of the developed UCC model was to make care easier to access and closer to home, avoiding patients making unnecessary visits to ED, avoiding the unnecessary delays, transfers of care and duplication in care, and supporting patients to effectively manage their own health and wellbeing.

The UCC was never formally launched; ie there was no public opening ceremony, with use of the UCC mainly through word of mouth and reputation of service. Halton CCG launched '[Beat the Scrum](#)' campaign in June 2017 with local rugby team to raise awareness about alternatives to A&E & GP practices; the initiative has been heralded nation-wide. Received 100,000 video views, with a total view time of 17 days. It coincided with an increased uptake of Halton's UCCs.

Patient cohort

The identification of a particular in-scope patient cohort was difficult for implementation; the population of Halton is split into two towns (Runcorn and Widnes) by the River Mersey, with two distinct identities and health needs. In Halton, 15 percent of the population are 65 and over, 95 percent are categories as caucasian, and Halton is among the most deprived 20 percent of local authorities in England. To ensure a good level of service in both centres that met these demographics, but not replicate and duplicate services in the borough, NHS Halton CCG subsequently commissioned the provision of two Urgent Care Centres in 2015, with one opening in February 2015 in Runcorn and October 2015 in Widnes. The services at Widnes are currently provided by Bridgewater Community Foundation Trust, and have delivered services to date based on a draft service specification.

Option 4: Widnes UCC

- Clinical implications
- Commercial viability
- Ease of implementation

Workforce

Medical and nursing team at Widnes UCC: A Nurse led clinical model that is supported by GPs and other health professionals. The full-time make up of the staff includes:²

- Doctor (GPs): There are three GP shifts per day (GP on site from 12-6pm daily).
- Nurse Manager (Band 8a): 1.0 FTE
- Nurse Clinician (Band 8a): 2.0 FTE
- Nurse Coordinator (Band 7): 5.0 FTE
- Clinical Nurse (Band 6): 3.5 FTE
- Clinical Nurse (Registered Sick Children's Nurse) (Band 6): 3.5 FTE
- Clinical Nurse Development (Band 6): 3.5 FTE
- Health Care Assistant (Band 3): 3.5 FTE
- Administration Staff (Band 6): 7.0 FTE

From July 2016 - December 2016, 18 GP shifts were missed at Widnes UCC.² A September 2018 Care Quality Commission report specifically noted that recruiting all clinical staff with the right skill-mix is difficult, requiring clinical experience, diagnostics skills, prescribing (desirable), paediatrics (skills in short supply).⁵ There is particular difficulty in recruiting GPs resulting in high use of agency GPs. The new GP Job Description involves rotation within an ED, which is hoping to attract GPs.

Governance

There was limited information relating to governance found in public domain; however, it appears that a Clinical Pathway Reference Group that meets bi-monthly to review data on attendance and patient flow and acuity, the current pathways, clinical skills and new pathways that can be developed.

Commercial model

The public service is commissioned by the NHS Halton Clinical Commissioning Group, and provided through the Community health provider, Bridgewater Community Healthcare NHS Foundation Trust.

Cost

Costs to patient: Free

Capital costs: Transformation of Widnes Health Care Resource Centre into UCC; (unknown) capital contribution by Halton Clinical Commissioning Group + \$850K of Department of Health funding.⁶

Projected to achieve approximately £3m in 'system' savings over three years, with a payback period between one and two years post practical completion from:

- Estates savings as a result of potential disposals accelerated by the Widnes UCC scheme
- Savings in void costs at Widnes Health Care Resource Centre
- Housing sites potentially released as a result of potential disposals
- Savings and efficiencies associated with patient emergency transport
- Savings and efficiencies associated with existing A&E facilities
- Tariff savings as a result of patients being seen in the most appropriate setting.

UCC resources were not taken away from the ED; finances were found from within system.

Option 4: Widnes UCC

- Clinical implications
- Commercial viability
- Ease of implementation

Evaluation of UCC

Projected benefits of developing Widnes UCC:⁴

- £150,000 savings to the health system annually
- 15 per cent reduction in A&E attendances over five years
- 15 per cent reduction in non-elective admissions through A&E
- 23 per cent reduction in A&E attendances over time.

Widnes UCC summary of performance - August, 2018:⁷

- **Treatment:** On average, patients waited 7 minutes from arrival to treatment (reduced from an average of 49.2 minutes when UCC opened).⁸
- **Total time in UCC:** 95 per cent of patients waited under 189 minutes (3hrs 9 minutes) from arrival to departure (median wait time 84 minutes in July 18, and 75 minutes in August 18).
- **Re-attendances:** In August, 0.03 percent of attendances were unplanned re-attendances (down from 0.05 per cent in July 18) (0.06 per cent over past 25 months)
- **Left without being seen:** In August, 0.03 percent of patients left without being seen (0.07 percent over past 25 months).
- **Patient experience:** 96.5 percent of patients who completed the '*Friends and Family*' test would recommend the UCC to friends and family.

Widnes UCC reported issues:

- **Inappropriate referrals:** Halton CCG queried spike during May 2018 of transfers from Widnes UCC to ED at Whiston. Deep dive in June indicated a 72 per cent increase in activity compared to same period in 2017. An audit found that pathways were not being fully adhered to, with a number of cases being inappropriately referred.⁹

Other reported outcomes:¹⁰

- **Combined attendances of (two) UCCs (as of July 2018):** 10,312 YTD
- **Combined effect on the Halton Borough EDs from the (two) UCCs (as of January 2017):** reduction of 157 people per month, annual saving of £234,000.² During 2016/17, Halton was just one of two CCG's in North England to reduce number of people attending a type 1 A&E (due to implementing UCCs),⁹ with A&E attendances (predominantly at Warrington General and Whiston) falling by 4.8 per cent from 2014/15 to 2016/17.
- **Combined effect on Warrington and Halton Hospital EDs from the (two) UCCs (as of January 2017):** reduction of 88 patients per month, £131,000 on expected spend.²
- **Combined use of (two) UCCs:** Increase of 7 per cent in 2017/18; extra 1,500 patients per month using UCCs rather than A&E in 2016/17 vs 2014/15.⁸
- **Patient feedback (January 2018):** 58 per cent of people would have attended A&E if UCCs were not available locally, and 64 per cent are attending UCCs without seeking help somewhere else first.

As part of the redevelopment of the UCC into an Urgent Treatment Centre, an initial desktop review of both UCCs was undertaken by the CCG to understand the challenges and opportunities for the management and delivery of urgent care in Halton. The initial desktop review found that the two UCC's provide '*high-quality assets to both the Widnes and Runcorn communities, and appear to be highly valued by the local population*', as demonstrated by the Friends and Family test (FFT) scores. The UCCs have '*high quality estate and facilities*' including advanced diagnostics, ambulance bays and clinical observation areas. However, the review found that the purpose of the UCCs was unclear and lacked clarity on the specification and service delivery.

Whilst the report notes "challenges" with available data, highlights include:¹¹

- Significant proportion of UCC patients attend with "low-level" health challenges which could potentially be dealt with through self-care
- Appears to be low numbers of transfers by ambulance to the UCCs (available data suggest numbers vary between 0.1 per cent - 0.5 per cent of attendances).
- Balance of nursing staff due to acuity of patient conditions appears to be towards the more senior end of the professional scale; this exceeds the capability required to meet patient needs and means that nursing staff may not be working to full scope of practice.

Option 4: Widnes UCC

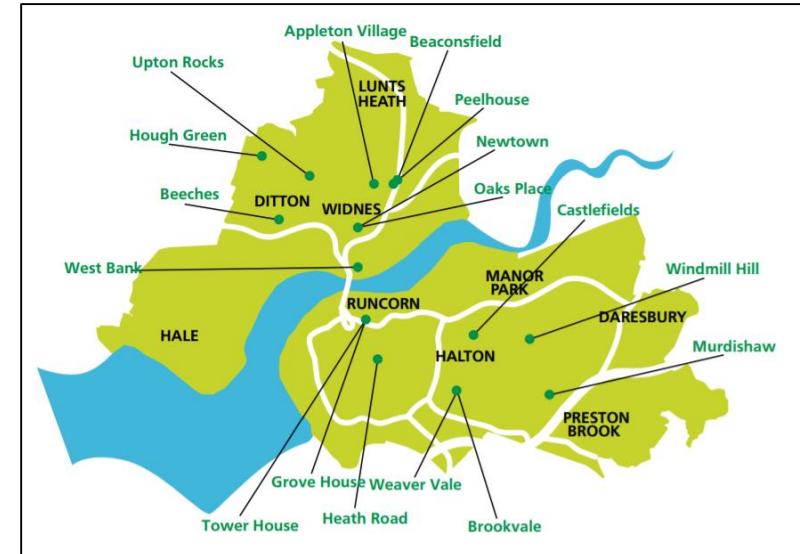
- Clinical implications
- Commercial viability
- Ease of implementation

Implementation considerations

Government policy: In March 2017, the “*Next Steps on the NHS Five Year Forward View*” was published, highlighting Urgent and Emergency Care (UEC) as one of the NHS’ main national service improvement priorities. One element of the UEC section includes the roll-out of standardised new *Urgent Treatment Centres* as a result as the ‘confusing’ mix and varied levels of services between walk-in centres, minor injuries units and urgent care centres, in addition to GP health centres and surgeries offering varied levels of core and extended services. The NHS has released a core set of standards for Urgent Treatment Centres drive consistency. By December 2019, patients and the public will:

- A. Be able to access urgent treatment centres that are open at least 12 hours per day, GP-led, staffed by GPs, nurses and other clinicians, with access to simple diagnostics, e.g. urinalysis, ECG and in some cases X-ray.
- B. Have a consistent route to access urgent appointments offered within 4 hours and booked through NHS 111 (free-to-call single non-emergency number medical helpline), ambulance services and general practice. A walk-in access option will also be retained.
- C. Increasingly be able to access routine and same-day appointments, and out-of-hours general practice, for both urgent and routine appointments, at the same facility, where geographically appropriate.
- D. Know that the urgent treatment centre is part of locally integrated urgent and emergency care services working in conjunction with the ambulance service, NHS111, local GPs, hospital A&E services and other local providers.

Although there will inevitably be some variation, all facilities must have the offer of booked urgent appointments, accessed through NHS111, General Practice and the ambulance service, which forms part of a list of 27 minimum standards.



Source: NHS Halton Clinical Commissioning Group. *What we do*. Access document [here](#).

- █ Clinical implications
- █ Commercial viability
- █ Ease of implementation

Option 5: St John Ambulance WA UCC

St John Urgent Care Centres - Perth, WA

In Western Australia, St John Ambulance WA (an incorporated not-for-profit organisation) is under contract to the Western Australian government as the primary provider of ambulance services for the state. In an ambition to provide a broader range of health services, St John Ambulance acquired Apollo Health Pty Ltd in June 2016, which included four primary health medical centres in Joondalup (22.8km North of CBD), Cockburn (21.8km South of CBD), Armadale (37.4km SE of CBD) and Cannington (11.1km East of CBD). Three of those centres (Joondalup, Armadale, Cockburn) provided a full range of primary health services, with the fourth centre (Cannington) having a lesser range of services, but all offering bulkbilling. In July 2016, St John opened two Urgent Care Centres at the pre-existing Medical Centre sites at Joondalup and Cockburn, and at Armadale in October 2017 - now described as 'Superclinics', offering general practice, walk-in urgent care clinics, a skin cancer clinic and pathology in one centre. Cannington remains as a medical centre only.

Service model

Opening hours: 7 days per week, 8am – 10pm, 365 days per year.

Process for patient arrival: Triage by Nurse, patients seen by a doctor with service provision complemented by nurse practitioners and paramedics.

- **Via walk in**
- **Via secondary triage:** St John Ambulance responds to triple zero (000) calls in the Perth community. When attending to calls, paramedics will assess a patient's unscheduled care requirements and determine the most appropriate care pathway in the best interests of the patient. This pathway may be to one of St John Ambulance's Urgent Care Centre or to a public hospital ED. Patients are made fully aware of the recommended approach to treatment and can discuss these options with paramedics at the time of the incident.
- **Relationship with WA South Metropolitan Heath Service:** Development of joint project to provide care for patients with cellulitis in UCC rather than hospital.¹

Suitable presentations (at previous Apollo Centres) - whilst the following list does not constitute a *clinical inclusion criteria*, suitable presentations included: general practice, dental, medical imaging, pathology, skin cancer clinics, weight loss clinics, cosmetic medicine, podiatry, geriatrician specialists, osteoporosis clinics, physiotherapy, women's health, workplace medicals, travel medicine, fracture clinic, mental health.²

Suitable presentations (at current UCCs) – whilst the following list does not constitute a *clinical inclusion criteria*, suitable presentations include: **simple general practice** (ie repeat prescriptions, notes for work, minor viral and bacterial illnesses, cold, flu, sore throat, fever, infections, rashes), **orthopaedic and musculoskeletal injuries** (ie sprains, fractures, broken bones), **lacerations requiring suturing** (ie minor soft tissue injuries such as cuts and lacerations requiring stitches or glue, insect and animal bites, minor burns and scalds), **foreign bodies** (ie minor foreign bodies in soft tissue, ears, nostrils and eyes), **eye complaints** (ie sticky eyes, corneal ulcers, foreign bodies in eyes, etc), **secondary triage for low acuity patient transfers.**²

Clinical exclusion criteria: UCC has not developed a clinical exclusion criteria.

Diagnostics/additional services provided co-located Medical Centres:

- GP consulting rooms / treatment rooms, consisting of an elevated nurse's station
- Dental consulting rooms
- Radiology (X-ray facilities and casting and fracture management equipment)
- Pathology
- Pharmacy

Process for ongoing care: Follow-up sessions are encouraged at the UCC to 'promote the best possible patient care' - eg plaster, urgent dental and removal of stitches.

Technology: Patient notes transmitted to patient's own GP as they leave the UCC (St John introduced electronic transmission of ambulance Patient Care Records to patient's GPs in 2015). It has been suggested St John plans to develop community outreach medical services through telemedicine from the UCCs to support remote communities and aged care support.³

- █ Clinical implications
- █ Commercial viability
- █ Ease of implementation

Option 5: St John Ambulance WA UCC

Location and transition drivers

Four locations: Cockburn, Armadale, Joondalup, Cannington (which has a lesser range of services).

St John's entry into the primary health space (through acquisition of Apollo Health) was a specific, and deliberate step that sought to close a gap in service provision and integration that was preventing progress towards the concept of an effective gateway into the health system (as St Johns already provides the ambulance services). St Johns took it upon themselves to take steps and bridge that gap, with the aim being for the government to leverage the opportunities created.²

In preparation for implementation of the services, ED presentations and triage rating were evaluated (380,000 cases not classed as serious or life threatening; 30,000 were transported in ambulance). Confirmed a significant cohort could be seen in an alternative setting, which was backed by two trials run by St John with a GP-led ambulance surge capacity unit, which demonstrated 25 per cent of ambulance patients were suitable for treatment in a non-ED setting

Whilst the medical clinics operate in the same way as other General Practices, UCCs provide episodic care with patients being discharged back to their own GP for ongoing care. The implementation of integrated notes was an important transition consideration, to indicate that St John UCCs were not operating in competition with General Practice. St John is of the view that where a patient can go to their own GP, they should. Where they cannot; patients can go to the UCC for that particular episode and be referred back to their own GP.

Patient cohort

"When it's urgent, but not an emergency" - patients with non-life threatening injuries/illness, seen by a doctor in a primary setting. A typical caseload at the UCCs reflects ED Triage Category 4 and 5 patients and walk-in general practice patients. Approximately 25-40% of presentations are orthopaedic in nature (ie sprains and stable appendicular fractures to wrists and ankles)⁴, with reports suggesting a large number of these occurring from sporting injuries.

Workforce

The workforce consists of doctors, ambulance paramedics and nurses.

Rosters:

- 1 x Doctor every shift (either 8am-3pm or 3pm-10pm)
- Nursing and paramedic roster: *unknown*.

Nurse practitioner scope of practice: fracture management, clinical examination, X-ray interpretation, suturing and wound management, assessment of minor eye injuries.

Paramedic scope of practice: required to conduct upskilling to have primary health service skills such as suturing and plastering.

Employment:

- **Doctors:** Full-time positions, Facilities Service Agreement options as well as locum opportunities.
- **Nurses:** Full-time/part-time positions.
- **Paramedics:** Salaried; attraction through Graduate Student Ambulance Officer program.

Governance

There was limited information relating to governance found in the public domain; however, it is apparent that St John's clinical governance function is led by the Clinical Services Director and supported by the Clinical Governance and Medical Policy committees. However, the governance arrangements within the individual UCCs is unclear from the desktop review.

- Clinical implications
- Commercial viability
- Ease of implementation

Option 5: St John Ambulance WA UCC

Commercial model

Costs are covered partially by the user fees for accessing the services. The service model for St John is that the medical clinics must operate in a commercially successful way with funds generated being used to offset the cost of providing the urgent care centres. Funding is provided by the WA Department of Health, however the amount is not publicly available. However, St John is the primary provider of Ambulance Services for WA, and receives funding for these services. This may assist in St John's ability to provide an integrated model of care chain for the WA community, which is anticipated to touch 40 percent of the states population in 2017/18.⁵

Note: unlike Tasmania, the WA government does not subsidise the costs of ambulances for WA residents, nor is this covered by Medicare. As such, patients are required to pay the Ambulance fee whether they are transferred to the ED, or triaged to the UCC.

Costs

To patient: All locations offer bulk billing with a current Medicare Card (however, only available where a benefit exists).

Operational costs: Previously, the four Apollo centres operated in the same way as other corporate facilities with the GPs bulk-billing patients and providing Apollo a commission for the use of staff and infrastructure. Now, all staff (including doctors) are salaried. **Cost of acquiring Apollo Health - \$22,662,311.**

Evaluation of UCC

When the UCCs first opened, many of the patients seen in the UCCs were patients that could have been seen in any General Practice, had an appointment been available.² However, as the centres have matured, the UCCs have witnessed a similar change in the patient cohort not dissimilar to that seen in other UCCs. The UCCs now are progressively seeing more patients who would otherwise needed to attend an ED (a large majority of which are minor sporting and home injuries). In the first year of operation, 256,000 patients visited the Medical Centres; 200,000 Medical, 16,000 Dental, and 41,000 Urgent Care (17,000 of which would have attended the ED).⁴⁵

2017/18 in review:⁵

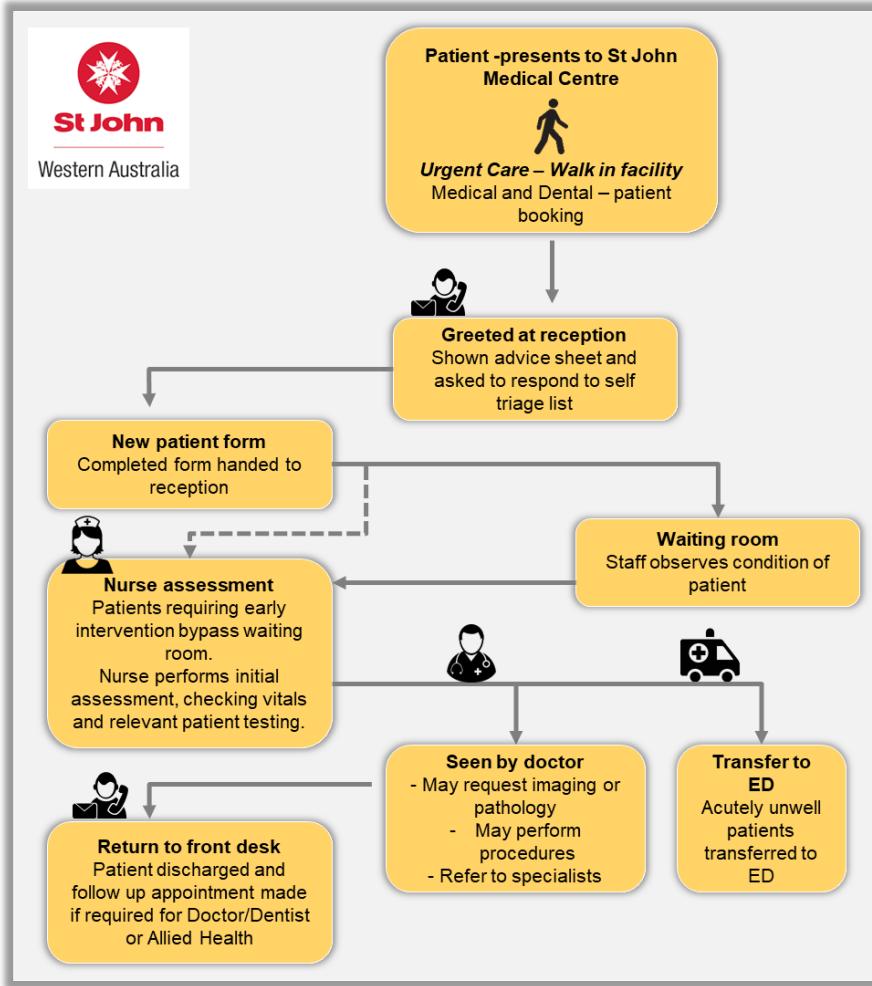
- Total of **57,558** patients seen in the three UCCs (Cockburn, Joondalup, Armadale); a 36 per cent increase on 2016/17
- Of these patients treated, **20,000** would have required ED presentation had UCC not been available; approximately 55 people per day
- Ancillary services (ie pathology and medical imaging) increased by 20 per cent and X-ray requests by 78 per cent (over 9,000 X-rays in 2016/17)
- Approximately 0.1 per cent required Ambulance, with 97 per cent discharged to an alternate pathway or home.

Whilst no formal review of clinical outcomes was found in the public domain, St John Ambulance WA reports have stated that GPs in the vicinity of the UCCs have become more confident in the competition neutrality aspect of the UCC model, and have increased their own referral rates to the UCC for particular episodes of care.² This is in line with St John's mission of integrating with the broader health system - both hospital and primary care.

The UCC is audited against Key Performance Indicators. These are not publicly listed, but are said to include wait times, patient presentations and the nature of referrals to emergency departments.

Option 5: St John Ambulance WA UCC

- █ Clinical implications
- █ Commercial viability
- █ Ease of implementation



Option 6: Pegasus 24 Hour Surgery

- Clinical implications
- Commercial viability
- Ease of implementation

Pegasus 24 Hour Surgery - Christchurch, New Zealand South Island

Pegasus 24 Hour Surgery commenced operations in 1987, when a group of Christchurch family doctors created a co-ordinated out-of-hours-services staffed by themselves. From that, the Pegasus Group was formed in 1992. In 2013, the Partnership Health Canterbury Primary Health Organisation (Partnership Health) and Pegasus Health (a privately owned health provider) merged into one PHO organisation, forming Pegasus Health (Charitable) Ltd (Pegasus Group); the largest PHO in the Canterbury region with over 380,000 enrolled patients and employing over 85% of the city of Christchurch's GPs. This PHO covers the areas of Christchurch, Selwyn and Waimakariri, supporting 109 general practices. Pegasus 24 Hour Surgery is an independent business within the Pegasus Group, a purpose built 24-hour surgery which provides primary and urgent medical and accident care, with a particular focus on out of hours care. It is the only accident and medical centre in the Canterbury region that operates 24/7, and has been in operation for 25 years. The Pegasus 24 Hour Surgery is an approved RNZCUC Urgent Care Centre supplier and an approved facility for Urgent Care medical training, as well as an ACC (Accident Compensation Corporation) accredited accident and medical service provider.

Service model

Opening hours: Twenty-four hours per day, seven days per week, 365 days per year (busiest times are 9am – 2pm and 5 – 8pm).

Process for patient arrival:

- **Via nurse assistance line:** independent after-hours registered-nurse triage service that provides advice on how to manage condition until patient can visit GP next day, or alternatively, identifies patients who need to be seen by a Doctor at the 24 Hour Surgery or at Christchurch Hospital ED.
- **Via walk in:** Walk-in service, no appointments.
- **Secondary triaging:** For a range of less serious exacerbations or pre-existing conditions, the ambulance services diverts suitable patients to Pegasus 24hr Surgery rather than the ED; approximately 1,000 cases per year.¹ This is formally supported by Christchurch Hospital, with the attendance fee covered by Pegasus when patients who would have otherwise presented to the ED are diverted Pegasus Surgery.

Suitable presentations - whilst the following does not constitute a *clinical inclusion criteria*, suitable presentations include: **urgent medical issues** you would otherwise see a GP for, if available, and **urgent accident related injuries**.

Diagnostics/additional services provided:

- **Fracture clinic service:** diagnostic and treatment of soft tissue injuries, including cuts, sprains, broken bones (including plastering)
- **Observation Unit (5 beds)** (no extra charge): manage cases which require a more prolonged stay but no requirement for acute admission - 'hospital level care'
- **Onsite-radiology and X-Ray** (until 11pm): operated by Pacific Radiology (Christchurch Radiology Group) at additional cost to the patient. All X-rays checked next day by Radiologist.
- **Diagnostic testing:** including bloods. If patient enrolled with GP in Canterbury, results sent back to that GP.
- **Acute Sports Injuries Program:** Discounted sports injury program for players of registered sports organisations and schools who are part of Pegasus' Sports Card Program (free, no contracts); doctor consultation and x-ray for \$30. If diagnosed with fracture, referral to specialist fracture service for free. Offer available after 6pm weeknights and anytime on weekends. This is formally supported by Christchurch Hospital.
- **Acute Community Care Team:**² funded by Christchurch DHB, service provided by the Acute Community Nursing (nurses from Pegasus who provides support and medical oversight from a Medical Director and a Nursing Team Leader from Nurse Maude); designed to support/assist general practice teams in helping acutely unwell patients remain in home for treatment. Service designed for patients with an acute episode of illness that may otherwise be admitted to hospital (conditions that would usually respond to treatment within 3-5 days - eg cellulitis, urinary retention and respiratory illness). Available 8am-11pm, 7 days/week; patients seen in Observation Unit or in their home. Referrals usually from GPs to attend the 24 Hour Surgery, but can also be via the Surgery, ED or Ambulance.

Process for ongoing care: all patients referred back to their usual GP for any follow up care required, with patient's notes and test results sent overnight to the patients regular GP, unless otherwise requested.

Technology: use of own eMR service.

Option 6: Pegasus 24 Hour Surgery

- █ Clinical implications
- █ Commercial viability
- █ Ease of implementation

Location and transition drivers

Location: Christchurch CBD - 2.7.km from Christchurch Hospital Emergency Department

The Pegasus purpose-built 24-hour Surgery (more accurately described as a care facility) moved to a new building purchased by Pegasus Health in May 2017 ('Pegasus House'), which now co-locates the 24 Hour Surgery and Pegasus Health support services.³ Transition drivers referenced the infrastructure no longer being fit-for-purpose to suit a modern surgery, and reducing costs across various locations. As part of the transition, Pegasus held user group meetings involving patients, General Practitioners and staff.³

Christchurch Hospital also has the busiest emergency department in Australasia, treating more than 83,000 patients per year.

Patient cohort

1. Patients of 320 GPs who belong to Pegasus Health; nominate Pegasus 24hr Surgery as their preferred after hours care provider
2. Those not enrolled with a usual GP (will be assisted with finding a GP)
3. Visitors to Christchurch

Workforce

The 24 Hour Surgery is staffed chiefly by GP and Nurses.

Workforce:

- GPs (some have completed additional study in accident and medical care).
- Clinical Director
- GP Clinical Leader
- Senior Medical Officers
- Medical Officers (9 are fellows of RNZCUC, 5 are undertaking study to obtain)
- Clinical Nurse Educator
- Acute Demand Coordinator Team Leader
- Acute Demand Team Leader
- Acute Team Leader
- Acute Demand RN (some having authorisation to prescribe through completion of RN Prescribing Pathway)
- Registered Nurses
- Healthcare Assistants
- **Orthopaedic Specialist:** provide post acute follow up clinics for a range of conditions, ie fractures; which is supported by SMOs and Orthopaedic Nurses.

GP rosters: In FY17, Medical Officers covered 70 per cent of all shifts (56 per cent of Public Holidays, 88 per cent of Weekdays, and 43 per cent of Weekends).³ Doctors are employed to work full full-time at 24hr Surgery; as well as Pegasus Health PHO GPs who work on a rostered basis (weekends at Surgery, and weekdays at own practice). The overall individual commitment to provide after-hours shift cover has reduced, due to increased number of medical officers.

Recruitment: GP Plus on Pegasus Support Plus; recruits and places doctors at a fixed-term position at a local practice; also includes a weekend shift at Pegasus. The Surgery also has a Nursing Entry to Practice (NetP) program.

Option 6: Pegasus 24 Hour Surgery

- █ Clinical implications
- █ Commercial viability
- █ Ease of implementation

Governance

Pegasus Health (Charitable) Limited is principally involved in the delivery of health services, as well as being a Primary Health Organisation that delivers PHO services across Canterbury, with Pegasus Health (Charitable) acting as the controlling entity. Pegasus Health encompasses 109 General Practices into one large federation, with literature suggesting this has given a coherent voice and direction within primary care that has allowed effective relationships between providers across the system.² Whilst there is a lack of information of specific governance arrangements for the 24 Hour Surgery (apart from the Surgery being led by a single Clinical Director), Pegasus Health is led by a Board (10 directors - 6 GPs, 1 Nurse and 3 Independent, which has a Clinical Board and Community Board reporting to it. There also exists a Nurse Membership Board within the PHO, which nurses can pay a small fee to join.²

Commercial model

The PHO function of Pegasus Health has agreements with the Canterbury District Health Board to provide services to general practices and their patients. These include services focused on the integration of primary and secondary care, support for the provision of 24 Hour Acute Care in the community, the provision of services to residents of Child Youth and Family Residences and program office support to the Canterbury Clinical Network. Funding is also provided towards the development and delivery of a comprehensive clinical education program to doctors, nurses and pharmacists working in primary care in Canterbury and a number of information systems initiatives. Majority of these services are funded on a two to three year basis, whilst some elements are funded on an annual basis. For 2016/17, this amount was \$2,548,000.⁶

Transactions between the PHO function and the operating divisions of the Company (Pegasus Health) are governed by the Company's Services Contract Policy, and allows for funding of loans. As such, whilst funding may not be provided to Pegasus Health directly for the operation of the 24 Hour Surgery, the availability of loans to support the function and funding provided for eg clinical education programs may offset some of the operational costs of the 24 Hour Surgery.

Costs

Costs to patients: the below costs are based on non-enrolled patients (ie a general walk in), who does not have a Community Services Cardholder (social services).

	Weekday	Evening/Weekend	After Midnight
Adult Medical Consult	\$85	\$100	\$105
Youth (13 – 17 years)	\$70	\$85	\$90
Child (6 – 13 years)	\$58	Free	Free
Child (under 6)	\$38	Free	Free

	Weekday	Evening/Weekend	After Midnight
ECG (with consult)	\$30	\$30	\$30
ECG (just ECG)	\$45	\$45	\$45
Blood Test Fee	\$15	\$20	\$15
Sexual Health (U 21)	\$20.50	\$20.50	\$20.50
Non ACC Dressing	\$35	\$35	\$35
Home Visit	\$165	\$195	\$200

Operational/Capital costs: No information relating to costs was publicly available.



Option 6: Pegasus 24 Hour Surgery

- █ Clinical implications
- █ Commercial viability
- █ Ease of implementation

Evaluation of UCC

The Pegasus 24 Hour Surgery has been credited with helping to stem the growth in ED presentations across the Canterbury region, increasing the acuity of patients presenting to ED (as measured by triage category) and resulting in an admission rate from the ED to inpatient wards that is one of the highest in New Zealand.⁴

Funding is also provided to the Pegasus PHO for “enhanced primary care treatments - ie treatment of deep vein thrombosis, which is estimated to prevent approximately 1,000 visits per year to ED, and treatment of cellulitis, with an estimated 700 visits to ED prevented per year.⁴

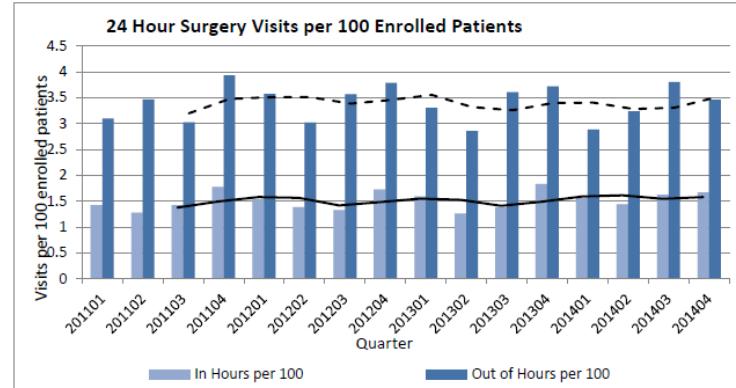
Despite the requirement for a co-payment, attendance levels at the UCC have remained at similar levels, and have relieved the level of attendances at the Christchurch Hospital ED.⁵ Internal research conducted by the 24 Hour Surgery suggests that people now automatically associate the 24 Hour Surgery with their own GP; they’re advised to go there by their GP if they are unwell after hours, and are also directed there if they call their general practice outside hours.

However, with the increasing scope of services provided at the practice, some GPs feel that they are starting to work beyond the limits of their expertise as more complex cases are handled by the surgery.¹

Over the years – backed by HealthPathways and telephone access to hospital specialists – Pegasus 24 Hour Surgery has increasingly handled more complex cases.⁵ The practice now sees 75,000-plus patients a year, almost as many as the 80,000 attendances at the emergency department. It takes more patients out of hours and at weekends than the emergency department. This is despite a non-subsidised visit to the 24-hour surgery costing \$75.

In FY 2017, the busiest day of the year was Christmas Eve (411 patients), whilst the busiest hour was between 11am and noon on 2 July (44 patients).³

The practice is also a leader in the use of the nurse practitioner role in New Zealand. However, the introduction of a Nurse Membership Board within the PHO has been described as a “toe in the water” regarding nursing leadership, backed by a wariness within some of the GP community to develop fully the nurse practitioner and prescribing roles.



Source:⁸ *Travis Medical Centre. Changing the patient experience: A case study for integrating health services. November, 2015. Access document [here](#).*

Collaboration with Christchurch Emergency Department⁷

Pegasus set up a liaison arrangement between their Health Population Team and Community Engagement Team and the Emergency Department at Christchurch Hospital to identify patients who were attending ED for non-urgent conditions and support them to access regular primary care for their ongoing health needs. This was raised by the growing number of people reporting at ED, approximately 285 people each day (total ED attendance), and growing at 3 per cent every year. The drivers of these non-urgent attendances, ED staff reported, tended to be poverty, combined with mental illness, addictions, homeless and family violence; all of which were seen as barriers to patients enrolling with a General Practice. From a system-wide point of view, the true level of need for primary health care via general practices was being under measured, there was no provision for ongoing care, causing the ED to be overwhelmed.⁵ The Service is currently receiving on average 50 referrals from ED per month.⁶

Appendix F Stakeholders consulted

Stakeholders consulted

Stakeholder name	Organisation	Stakeholder Title / Position	Method of engagement
Annette Barrett	Primary Health Tasmania	Assistant Director of Nursing, PHT North	Group - North
Bruce Edwards	Tasmanian Health Service	Nursing Director, Complex, Chronic Disease and Sub-Acute	Group - South
Dr Alasdair McDonald	Tasmanian Health Service	Director of Medicine, LGH	Group - North
Dr Allison Turnock	Department of Health	Medical Director, GP & Primary Care	Weekly Steering and Workshop
Dr Annette Barratt	Tasmanian Health Service	GP Liaison Officer South	Reference Group
Dr Con Geogakas	Department of Health	Director of Medical Services, Ambulance Tasmania	Reference group and Workshop
Dr Jerome Muir-Wilson	Private Provider	General Practitioner	Workshop
Dr John Davies	Private Provider	President of the AMA	One-on-One
Dr Liz Webber	Tasmanian Health Service	GP Liaison Officer South	Reference group, Group - South, Workshop
Dr Lucy Reed	Tasmanian Health Service	Director of Emergency Medicine, LGH	One-on-One and Workshop
Dr Raj Rajesh	Tasmanian Health Service	Consultant Nephrologist, Dept of Medicine, LGH	Reference group
Emily Sheppard	Other	Branch Secretary of ANMF	One-on-One
Emma Huckerby	Tasmanian Health Service	Director of ED, RHH	One-on-One
Eric Daniels	Tasmanian Health Service	Executive Director of Operations, North/North West	Group-North, One-on-One
Fiona Young	Tasmanian Health Service	Nursing Director, Primary Health North	Group - North
Gordon Armstrong	Private Provider	CEO of Eastcare	One-on-One

Stakeholders consulted

Stakeholder name	Organisation	Stakeholder Title / Position	Method of engagement
Grant Smith	Tasmanian Health Service	Integrated Operations Centre, LGH	Reference group
Ian Bell	Department of Health	Manager, Planning, Purchasing and Performance	Weekly Steering Committee Meeting and Workshop
Jacinta Ellis	Department of Health	Consultant, Planning, Purchasing and Performance	Weekly Steering and Workshop
James Harrison	Private Provider	Nursing Services Manager, St Lukes Health	Workshop
Jesse Hardy	Private Provider	Business Manager, Call The Doctor	One-on-one
John Burgess	Tasmanian Health Service	Director of Critical Care	One-on-One
Kelly French	Tasmanian Health Service	Acting Head of Rehabilitation and Subacute Services	Group - North
Kevin Ratcliffe	Department of Health	Data and Information	Group
Laurie Kinnie	Department of Health	Principal Consultant	Workshop
Lee Wallace	Tasmanian Health Service	Acting Director of Nursing, LGH	Group - North
Martin Hensher	Department of Health	Director, Monitoring, Reporting and Analysis	Workshop and One-on-One
Meredith Prestwood	Tasmanian Health Service	Nurse Practitioner, Community Rapid Response Service	Group - North and Workshop
Mohammed Huque	Department of Health	Data and Information	Group
Narelle Butt	Department of Health/Tasmanian Health Service	Manager, Mental Health Alcohol and Drug Directorate	Reference group, Group - South and Workshop
Nell Kirby	Department of Health	Chief Executive, Ambulance Tasmania	Reference group
Nicola Dymond	Tasmanian Health Service	COO of Tasmania Health Service	Reference group and One-on-One

Stakeholders consulted

Stakeholder name	Organisation	Stakeholder Title / Position	Method of engagement
Paula Hyland	Tasmanian Health Service	Executive Director of Allied Health	Group North, One-on-One and Workshops
Peter Mansfield	Department of Health	Data and Information	Group
Peter Maree	Tasmanian Health Service/ Department of Health	Manager, Strategy and Planning, Health Planning	Reference group and Group - South
Phil Edmonston	Primary Health Tasmania	CEO of Primary Health Tasmania	One-on-One
Prof Tony Lawler	Department of Health	Chief Medical Officer	One-on-One
Rosie Crumpton	Department of Health	Ambulance Tasmania	Workshop
Ross Smith	Department of Health	Deputy Secretary, Planning, Purchasing and Performance	Weekly Steering and Workshop
Sal Bucksey	Primary Health Tasmania	Health Stream Lead	Workshop
Sharon Williams	Tasmanian Health Service	Nurse Manager, Integrated Operations Centre	Workshop
Susan Crave	Tasmanian Health Service	Area Manager, Mental Health Services	Group - North
Susan Gannon	Tasmanian Health Service	Executive Director of Operations, RHH	One-on-One
Trish Allen	Tasmanian Health Service	Director of Nursing, Critical Care	One-on-One

Appendix G Workshop output

Option 1

 **Option 1: Nelson Medical and Injury Centre**
An urgent care centre located adjacent to a hospital with an emergency department 

A medical and injury centre (MIC) located in Nelson (New Zealand South Island), which has a population of 51,000, but serves the wider region of Canterbury, which has a population of 612,000.
It is situated in a stand-alone building that onsite beside the Nelson Hospital emergency department, who have a 'working together' ethic towards patient care (ie joint meetings, regular liaison, MIC attending orthopaedic meeting).
It is the lead contractor between the Nelson Bay Primary Health Organisation (NBPHO) and Nelson Bays General Practitioners Ltd (the General Practice cooperative in the Nelson region - 17 practices).
Health funding is devolved by the NZ Ministry of Health to 20 District Health Boards (DHBs) who govern, purchase and/or provide health and disability services for their geographically defined populations. DHBs fund primary care through Primary Health Organisations (PHOs) which contract general practice and other non-government providers to provide services.
The MIC is an approved RNZCUC Urgent Care Centre supplier and an approved facility for Urgent Care medical training.
The NZ Accident Compensation Corporation (ACC) is the government entity responsible for administering NZ's universal no-fault accident injury scheme.
The Nelson MIC is an approved provider of accident related care under the ACC scheme.
The NZ Very Low Cost Access (VLCA) scheme supports general practices with an enrolled population of 50% or more high needs patients. MIC is a VLCA practice, and has agreed to maintain patient fees at a low level.

01 Location and opening hours

- Location: In a building that sits next to the Nelson Hospital ED, 2.4km from CBD, since 2011.
- Opening hours: Operates as an accident and medical centre 8am – 10pm, 7 days per week, and a VLCA general practice 9am-5pm Monday – Friday.

02 Service delivery

- Any urgent medical issue you would otherwise see your GP for, as well as accident related injuries such as sprains or cuts
- List of symptoms that can be treated at MIC - soft tissue injuries, wounds requiring suturing or dermoplast glue, dehydration (not hypovolemic shock) requiring IV fluid, midlocalised cellulitis, respiratory infections without severe respiratory distress, mild to moderate asthma or COPD, lower UTI with mild symptoms and no evidence of sepsis, minor head injury (e.g. bump, bruise, contusion), simple fractures (e.g. wrist, elbow, shoulder, ankle, toe), sprain, dislocation, concussion (without loss of consciousness, abnormal Glasgow Coma Scale or seizure following the injury), minor allergic reaction without signs of anaphylaxis, isolated simple fractures not involving a long bone (e.g. hand, foot, digits, forearm), seizures (provided the patient has known epilepsy, has recovered to their usual post-ictal state and no midazolam has been administered) – and a list of symptoms that cannot be treated at MIC.
- Facilities include 3 consulting rooms, a procedure room, a nurse consult room and a triage area with two beds.

03 Workforce

- Administrative and staffing support provided by Nelson Bay PHO, with clinicians provided by the region's GP co-op; Nelson Bay General Practice Ltd
- One part-time nurse manager, one part-time practice manager, one part-time Practice Manager, GPs (mix of those directly employed to work at MIC, and rotating clinicians from the GP co-operative who fill the after-hours roster).
- NP scope of practice - urgent care + general practice: Authorised prescribing, Work Capacity Certificates, order and interpret lab tests/minor limb injury x-rays, certify cause of death and issue death certificates + chronic disease, women's health,
- RN scope of practice - triage + general practice: N2 Resuscitation Council Trage Care Advanced Level 6 (expert nurse/advanced paramedic), nurse initiated x-ray, suturing, plastering, standing orders, cervical smears, immunisations, sexual health, wound care, spirometry – working at top of scope.

04 Diagnostics

- Radiology: If needed, patients taken to ED (available daily, 8.30am – 9.30pm). Included in flat-fee price (\$75). Currently implementing Fracture Clinic on-site for minor limb injuries, with GPs able to refer patients to MIC fracture clinic via agreed Canterbury Health Pathways – nurse initiated.
- Pathology: If needed, bloods taken onsite at MIC, taken to lab in hospital for testing, results back to MIC. Included in flat-fee price (\$75)

05 Access

- Via no-appointment walk in; Triage by EN – patients presenting with out of scope conditions referred to ED.
- Via secondary triage from St John Ambulance Service (est 2017); contract between MIC, NMDHB and St John Ambulance – no pre-notification for simple low-acuity cases, but complex cases are triaged by RN/GP over phone before arrival.
- Via referral from the Nelson Hospital ED. Patient redirected when appropriate (priority 4 and 5 cases), or when ED at high capacity. Since July 18, all appropriate primary care patients are transferred from the ED to their GP, home or to MIC from 8am – 9.30pm.

06 Funding and costs

Costs to patient (without social security card)

- An enrolled adult: \$17 M-F 8am-6pm / \$75 all other times.
- A non-enrolled adult: \$65 M-F 8am-6pm / \$75 all other times.
- An enrolled child (U13): FREE all times.
- A non-enrolled child (6-12): \$40 M-F 8am-6pm / FREE all other times.
- A non-rolled child (U6): FREE all times

Commercial:

- Equal venture (staff jointly funded, located in NMDHB building)
- Surplus to budget of \$55k in 2017/18
- Voucher system funded by NMDHB for ambulance triaging to MIC
- Receives ACC contract funding - no GP requirement in contract, allowing nurses to work at top of scope (ie nurse initiated x-rays).

Evaluation

2017/18 review:

- 26,656 presentations (24,348 in 2016/17)
- Increase in after-hours presentations
- 33% increase in VLCA presentations
- VLCA enrolments capped at 1,200 (73 per cent have high health needs)
- 7,161 ACC presentations (5,930 in 2016/17)

Challenges: Keeping a sustainable workforce, need for more space, maintaining and expanding the relationship with ED, mixture of urgent care and VLCA patients, awareness of services.

Strengths

- Located next to the Emergency Department (ED); no confusion on how to find it
- Secondary triaging ambulance voucher system
- GP involved in initial design and ongoing ownership
- Nurse practitioner scope of practice
- Mix of general practice and urgent care
- Name – 'Medical and Injury Centre'.

Weaknesses

- Closes at 10pm; may need longer hours in Tasmania
- Co-location may not be appropriate or work in the Tasmanian environment
- Lack of allied health and easy access to radiology
- Difficulty in the recruitment and retention of physiotherapists
- Implementation of such a model could see ED lose nurses to UCC
- New Zealand model successful because activity relating to minor injuries attracts funding from the Accident Compensation Corporation, whereas Tasmania does not have access to an analogous funding stream.

Opportunities

- UCC model services the needs of the Tasmanian population (ie low SES), which helps patients get better access to GPs
- Pre-existing, large GP practices (especially in Hobart) that could adopt a similar co-operative model
- Cost effectiveness for diagnostics.

Threats

- Cost is equivalent of seeing a GP; duplication of services
- Changes would be required for accreditation and training.

Final report

Option 2

 **Option 2: Ealing Hospital UCC**
An urgent care centre co-located with an emergency department

Ealing Urgent Care Centre (18.2km from London Central) is co-located with the Ealing Hospital ED, and has been in operation since 2011. It is a GP-led service that treats minor illnesses and injuries, treating on average 65,000 patients a year. Greenbrook Health has been the commissioned service provider since April 2016, and has been rated as "good" by the independent Care Quality Commission, with one of five assessment subcategories rated as "outstanding". It is now rated as one of the best UCCs in London.

01 Location and opening hours

- Location: Ealing UCC is located in a space adjacent to the Ealing Hospital Emergency Department, which uses a joint triage system.
- Opening hours: Twenty-four hours per day, seven days per week, 365 days per year.

02 Service delivery

- All-aged patients who are "ordinarily resident" in the UK. The UCC patient cohort generally comes from within the Borough, with the UCC having the greatest proportion of attendees by people who live within the host Clinical Commissioning Group area – good awareness of service.
- Clinical Inclusion criteria: Ankle injury, wrist injury, minor head injury, elbow injury, burns and scalds, bites and stings, wounds & lacerations, rib injury, digit injury, eye conditions, upper respiratory tract infection, skin complaints, minor allergic reactions, earache, lower back pain, vomiting, urinary tract infection, sore throat – as well as a clinical exclusion criteria.
- Three-bay paediatric observation unit: No paediatric inpatient beds at Ealing Hospital since June 2016; UCC now provides an emergency paediatric service and manages paediatric transfers to other sites for difficult cases (avg 1/day). Review has found services are being underutilised.

03 Workforce

- The UCC is led by a UCC Service Manager, a UCC lead GP and a UCC lead Nurse who have oversight of the UCC and a team of UCC doctors/nurses, care practitioners, paediatric nurses and administration and reception.
- As part of the service agreement, UCC is able to define its workforce structure. However, the minimum levels of cover requires the UCC to be staffed by the following at all times: 1 x doctor and 1 x emergency nurse practitioner or emergency care practitioner
- There are also minimum staff competencies for each clinical area (ie diagnostics - interpret simple X-rays).
- Patient Champion: UCC aware that it has a large number of repeat attendees, some of these patients are not registered with a GP. The patient champion works to identify those patients that require help registering with local GPs to ensure they receive the care they require.

04 Diagnostics

- UCC has access to diagnostics and investigations at Ealing Hospital (ED)
- must be returned within 1 hour of being taken (via the Diagnostic Cloud and SystmOne systems)
- only provided where deemed necessary for immediate treatment in the UCC or likely to prevent a subsequent admission to the hospital

05 Access

Process for patient arrival

- Vis walk-in on own accord
- Patients who have contacted a service (ie NHS 111, GP out-of-hours service (OOH)) and have been asked to attend - GP OOH service can make booked appointments
- Those with the 20 presenting conditions agreed with London Ambulance Service for direct referral to UCC
- Patients brought in by ambulance with minor illnesses and injuries in whom they are on a trolley but capable of walking/moved in wheelchair

UCC patient streaming completed within 20 minutes of arrival for adults (15 for children). All patients assessed, treated and discharged within the national 4 hour limit. UCC expected to make all 'see and treat' decisions (ie if no need for triage due to UCC being quick/no need for diagnostics or investigations) within 60 minutes, with patients requiring transfer to the ED being transferred within 120 minutes.

Process for ongoing care: Patients seen, treated and discharged with no further support services required. Where appropriate, will refer patients to community based services (ie dental, pharmacy, community nursing). With exceptions (ie suspected cancer), UCC will not refer for first outpatient appointments. Discharge summaries to GP practices by 8am the following day.

06 Funding and costs

Costs to patients: Free

Public/Private: The public service is commissioned by NHS Ealing CCG, and provided by a consortium:

- Greenbrook Healthcare (primary UCC service provider)
- London North West Healthcare NHS Trust (who operate the Ealing Hospital ED)
- London Central and West Unscheduled Care Collaborative (provider of GP out of hours care in the Ealing borough).

Bid price for 5 year contract: between £19,463,580 and £21,298,420.

Evaluation

March 2016 Performance:

- Attendances: 5,707 patients, increase on February (5,281)
- Performance against 4 hour wait: averaged 98.6%
- ED streaming: 476 (8.3 per cent) streamed to ED and a further 238 (4.1 per cent) referred to ED after receiving treatment in UCC
- Triage times: 99.7% of adults in 20 minutes, 97.4% within 15 mins

Care Quality Commission: rated UCC as **good**

March 2018 Quality: Patient Safety and Safeguarding:

- No Serious Incidents
- 31 incidents reported over Feb-March; all resulted in 'no harm' incidents primarily related to transfer of patients to/from ED.
- Six patient/user complaints received
- Friends and Family Test: 90 per cent would be either Extremely likely or Likely to recommend the service.
- 160 patients registered with GP, 238 redirected to other primary health services

Strengths

- Patient champion position; linking patients back to GP, limiting use of UCC as a GP substitution
- Independently run despite co-location with ED
- Joint triaging with ED
- Access to pathology and imaging
- Access to specialists
- Sustainable funding model
- Shared electronic medical record with ED/other health services.

Weaknesses

- Availability of free space that could be re-purposed at both Royal Hobart Hospital (RHH) and Launceston General Hospital (LGH) is limited
- 4 hour limit to discharge; no ability for any on-going observations
- High cost per episode
- Nurse practitioners require higher level of training and education in Australia than in the UK, making NP models difficult to implement in practice in Australia due to scarcity of NPs
- Strong similarity to ED fast track model currently in place
- Community perception of ED.

Opportunities

- Pay for outcomes
- Percentage of referrals on to ED
- Workforce rotations between UCC and ED
- Rural and Isolated Practice (Scheduled Medicines) Registered Nurse (RIPRN) courses.

Threats

- Threat to ED fast track currently in place in RHH and LGH.

Option 3

Option 3: Mona Vale Hospital UCC

An urgent care centre co-located with a hospital with no emergency department



- As part of a suite of changes to better address the needs of the Sydney Northern Beaches community, the Northern Sydney Local Health District undertook a suite of infrastructure projects as part of the Northern Beaches Health Services Redevelopment.
- This included the development of the new 488 bed Northern Beaches Hospital (NBH), operated through a public/private partnership.
- As part of this redevelopment, Mona Vale Hospital, situated 30.8km from the Sydney CBD in Sydney's Northern Beaches, ceased delivery of all acute services from 31 October 2018 and assumed a rehabilitation, aged care, palliative care and community health focus.
- All acute services were transferred to the Northern Beaches Hospital.
- As part of the ED closure, an urgent care centre opened in October 2018, and a permanent ambulance station will be constructed on site. Estimated the UCC will see 10,000 - 13,000 presentations per annum (35 presentations per day), with each CMO seeing 8-9 patients per shift.

01 Location and opening hours

- Location: Mona Vale Hospital UCC is located in Sydney's Northern Beaches, and is accessible via public transport (bus stop opposite the hospital). The UCC is located within the hospital, on the previous ED footprint which has recently been refurbished to provide consulting rooms and a reception area. A purpose built UCC will be commissioned in the first quarter of 2019 in the vacated ED.
- Opening hours: Twenty-four hours per day, seven days per week, 365 days per year.

02 Service delivery

- The Mona Vale UCC treats non-complex, low acuity patients with minor injury and illness not requiring hospital admission, with the intent to see and treat most patients within 60 minutes. The in-scope patient cohort includes patients who are ambulant, or assisted by family/carer vehicle, who do not require admission and are generally local Northern Beaches residents or living in the area.
- Clinical inclusion criteria: Bruises or scratches, minor cuts needing stitches or glue, minor sports injuries, bites or stings, minor head injuries, broken bones, skin infections, minor burns or scalds, estrache, wound review, foreign body (eg swallowed, in nose or ear), facial pain, migraine, sore throat, sore or red eye, mild abdominal pain, rash, mild asthma or chest infection, minor illnesses including fever, infections and rashes, urinary tract infections, plastering/suturing – as well as a clinical exclusion criteria.

03 Workforce

- The workforce is senior doctor-led, consisting of emergency medicine doctors (Career Medical Officers), registered nurses and physiotherapy staff.
- Medical staff: able to independently manage all patients presenting to UCC, various blood gas and other pathology as required, plastering, and suturing. The CMO is also responsible for emergency training as required for nursing and allied health staff.
- Physiotherapy scope of practice: Musculoskeletal injuries with minor skin lacerations, casting and plastering, ordering x-rays (collaborative review with medical staff), isolated soft tissue injuries, closed peripheral fractures, spontaneously reduced dislocations.
- 2 CMOs working 8am – 11pm, 1 CMO 11pm - 8am, 2 RNs on duty 24/7, physiotherapist on duty 10.00am – 5.30pm everyday.

04 Diagnostics

- Radiology: on-site medical imaging provided to UCC by NSW Health Medical Imaging District Services via one fixed general radiology unit and two mobile x-ray units. Radiographer on-site 8am-8pm Monday to Sunday, last scan at 7.45pm. Plastering and suturing done on site.
- Pathology: provided on-site to UCC by NSW Pathology, who collect bloods from 8am-4pm daily. Limited Point of Care testing is available. Results to GP.
- Pharmacy: Provided to UCC as part of statewide hub and spoke service (Hub at Hornsby Hospital; 24.7km away and spoke at Mona Vale). A Pharmacist and Pharmacy Technician are employed at Mona Vale, who provide initial doses of some drugs, but not ongoing prescriptions.

05 Access

- UCC operates on a 'walk-in' no-appointment system.
- Trage occurs on arrival by nurse, with patients receiving all assessment (by medical practitioners), investigations, and treatment within 60 minutes.
- Patients presenting with conditions out of scope of the UCC model (as per the clinical exclusion criteria) are transferred to the Northern Beaches Hospital 12.6km away or Royal North Shore Hospital (25.1km away) according to agreed transfer policies.
- Options for transfer methods include private transport, non-emergency patient transport (provided by Mona Vale Hospital) and ambulance.
- Patients are discharged from the UCC for follow-up treatment with their general practitioner.
- The UCC uses the same electronic medical records (EMR) system as hospitals within the NSW LHD, with all patients automatically discharged from the system at midnight. The system ensures interoperability with the NBH and an ability to view (only) records and results.

06 Funding and costs

Costs to patient: Free, with valid Medicare card.
Funding: provided by the Northern Sydney Local Health District, outlined in a Service Agreement for the financial year.

Evaluation

- Significant concern following the announcement of the closure of the ED by the local community, concerned with travel times NBH.
- Since it is a new service, no documentation that detailed the process for service evaluation.
- UCC will be reviewed after one year to determine appropriateness of its twenty-four-seven operating hours.
- Also on site is a Community Health Centre which provides a range of allied health services, including chronic disease management.

Strengths

- Walk in, no appointment system
- No out of pocket expenses for patients
- Availability of allied health
- On-site Community Health Centre (mental health, chronic disease services).

Weaknesses

- Slow pathology
- Low projection of patient throughput; low demand of activity
- Reliance on ED specialists.

Opportunities

- Requirement for potential private hospital developers to include a UCC as part of their development bid.

Threats

- Currently, no existing facility where this model could be implemented.

Option 4

Option 4: Widnes UCC

An urgent care centre located in a primary health precinct



Widnes Urgent Care Centre is located in the town of Widnes, an industrial town in NW England, population of 60,000, which lies adjacent to the town of Runcorn on the opposite side of the river (3.7km away). The Widnes UCC is located within the Widnes Healthcare Resource Centre, a primary health precinct, located within the Widnes CBD. The UCC is 10.1km from Whiston Hospital (ED) and 10.8km from Warrington General Hospital (ED) (both within Widnes), and 6.4km from Halton Hospital (in Runcorn). Within Runcorn, there is a 'sister' UCC that is co-located with the Halton Hospital ED. The Bridgewater Community Healthcare NHS Foundation Trust (Bridgewater) operates the Widnes UCC, which opened in 2015.

01 Location and opening hours

- Location: Within Widnes Healthcare Resource Centre, which includes a dentist, GP practices and a GP out of hours service, and run by Bridgewater.
- Opening hours: Monday – Sunday 7.00am – 10.30pm (accepting patients until 10.00pm), 365 days per year. During the 30 minutes before closing, patients will be assessed but may be referred to their GP to be seen next day, Out-of-hours GP, or the ED at Whiston or Warrington Hospital.

02 Service delivery

- Suitable presentations: minor illness (sore throats, rashes and allergic reactions, bites or stings, coughs and colds, emergency contraception) minor injury (minor cuts or wounds, muscle or joint injury, sprains and strains) - which are occurring through recognisable patterns - ie increase in sports related injuries for 11-14 year olds on weekend mornings, minor burns or scalds, eye injuries and infections).
- Clinical Assessment Unit: Diagnostic bloods, X-Rays, USS, Doppler, ECG, AF Clinic, Acute Warfarin Initiation
- Observational bay: for up to 4 hours, no long-term stay.

03 Workforce

- A Nurse-led clinical model (ie Nurse manager, nurse clinician, nurse coordinator, clinical nurses, registered sick children's nurse), that is supported by GPs (3 shifts per day, GP on site 12-6pm daily) and other staff (health care assistant).
- Balance of nursing staff due to acuity of patient conditions appears to be towards the more senior end of the professional scale; this exceeds the capability required to meet patient needs and means that nursing staff may not be working to full scope of practice.
- Difficulty in recruiting GPs, resulting in high use of agency staff.

04 Diagnostics

- X-ray: 8am – 10pm, Monday – Sunday.
- Ultrasound: Conducted onsite Monday to Friday 9am – 5pm, conducted offsite at Warrington or Whiston Hospitals Saturday/Sunday.
- Pathology: 8am – 10pm, Monday – Sunday. Majority of tests转送 to Halton and Warrington Pathology, with results provided within 90 minutes of receipt. Some Point of Care testing available.

05 Access

Process for patient arrival:

- Via walk-in: no appointment.
- Via secondary triage: UCC kiosk Marked with the North-West Ambulance Service to receive ambulance patients (both chair and stretchered) that are triaged as low or medium acuity with certain conditions from 8am – 8pm, 7 days a week – ambulance staff phone ahead.

Process for ongoing care:

- To GP: no follow-up appointments provided; patient's care and treatment plan sent to GP by 8am following morning.
- To hospital: onward patient referral to other hospital services not generally provided, unless necessary as part of any additional treatment required. If required, transport provided by UCC. Approx. 3.4 per cent referred to ED.

06 Funding and costs

Funding:

- The public service is commissioned by the NHS Halton Clinical Commissioning Group, and provided by the community health provider, Bridgewater Community Healthcare NHS Foundation Trust.

Cost to patient:

- In developing the two new UCCs, resources were not taken away from ED; finances were found from within the system.
- There was an additional investment of £1.2 – 1.3 million.

Evaluation

Widnes UCC summary of performance - August 2018:

- Treatment: On average, patients waited 7 minutes from arrival to treatment (down from average of 49 minutes when UCC opened).
- Total attendances UCC: 95.03 per cent of patients waited under 189 minutes (2hrs 9 minutes) from arrival to treatment (median wait time 84 minutes in July 18, and 75 minutes in August 18).
- Re-attendance: In August, 0.03 per cent of attendances were unplanned re-attendances (down from 0.05 per cent in July 18) (0.06 per cent over past 25 months).
- Left without being seen: In August, 0.03 per cent of patients left without being seen (0.07 percent over past 25 months).
- Patient experience: 96.5 per cent of patients who completed the 'Friends and Family' test would recommend the UCC to friends/family.

Issues: Inappropriate cases referred from ED to UCC; pathways not adhered to, significant proportion of patients attend with "low-level" health challenges that could be dealt with through self-care, low numbers of transfers by ambulance to UCCs (~ 0.1 – 0.5 per cent of attendances), balance of nursing staff due to acuity of patient conditions appears to be more towards the more senior end of the professional scale – exceed capability required to meet patient needs.

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Strengths

- 2 UCC locations; working together with joint clinical pathways
- Capability to provide observation to patients (4 hours)
- Safety measures for 4 hour observation periods
- Nurse-led workforce; as long as there is good governance to support this
- Secondary triaging (ambulance)
- Point of care testing / quick pathology
- On-site radiology.

Weaknesses

- Located too far from hospital
- Nurse-led workforce caps the level of acuity of patients that are able to be secondary triaged from the ambulance to the UCC
- Limited nurse practitioners in Tasmania
- Financial sustainability of the model.

Opportunities

- Patients that are secondary triaged must be treated within a 4 hour observation period
- Integration with ComRRS (co-location and referral) to provide gap in services between ED and ComRRS
- Potential Medicare exemption for nurse practitioners.

Threats

- Nurse-led workforce would be attractive to employees in comparison to ED; the latter could lead to competition for workforce resources
- Difficulty in recruiting nurse practitioners in Tasmania
- Nurse-led workforce could result in high cost and high transfer rate.

Option 5

Option 5: St John Ambulance WA UCCs

An urgent care centre located in the community (suburbia)

In Western Australia, St John Ambulance WA (an incorporated not-for-profit organisation) is under contract to the Western Australian government as the primary provider of ambulance services for the state. In an ambition to provide a broader range of health services, St John Ambulance acquired Apollo Health Pty Ltd in June 2016, which included four primary health medical centres in Joondalup, Cockburn, Armadale and Cannington (all Perth outer suburbs). Three of those centres (Joondalup, Armadale, Cockburn) provided a full range of primary health services, with the fourth centre (Cannington) having a lesser range of services, but still offering bulk-billing. In July 2017, St John opened two urgent care 'Supercentres' offering general practice, walk-in urgent care clinics, a skin cancer clinic and pathology in one centre. Cannington remains as a medical centre only. St John's mission is to integrate with the broader health system - both hospital and primary care - not compete. St John is of the view that where a patient can go to their own GP, they should. Where they cannot, patients can go to the UCC for that particular episode and be referred back to their own GP.

01 Location and opening hours

- Location: Joondalup (stand-alone building with no other services, 22.8km North of CBD and 6km from Joondalup Health Campus) Cockburn (stand-alone building adjoining a small retail precinct with no other health services, 21.8km South of CBD), Armadale (within a shopping centre, 37.4km SE of CBD)
- Opening hours: Joondalup and Cockburn (8am – 10pm), Armadale (8am – 6pm).

02 Service delivery

- "When it's urgent, but not an emergency" - patients with non-life threatening injuries/illness, seen by a doctor in a primary setting. A typical caseload at the UCCs reflects ED Triage Category 4 and 5 patients and walk-in general practice patients. Approx. 25-40% of presentations are orthopaedic in nature.
- Suitable presentations: simple general practice (ie repeat prescriptions; notes for work, minor viral and bacterial illnesses, cold, flu, sore throat, fever, infections, rashes), orthopaedic and musculoskeletal injuries (ie sprains, fractures, broken bones), lacerations requiring suturing (ie minor soft tissue injuries such as cuts and lacerations requiring stitches or glue, insect and animal bites, minor burns and scalds), foreign bodies (ie minor foreign bodies in soft tissue, ears, nostrils and eyes), eye complaints (ie sticky eyes, corneal ulcers, foreign bodies in eyes, etc), emergency dental.

03 Workforce

- Doctors, ambulance paramedics and nurse practitioners (at least 1 paramedic and doctor on every shift, either 8am – 3pm or 3pm – 10pm)
- Nurse practitioner scope of practice: fracture management, clinical examination, X-ray interpretation, suturing and wound management, assessment of minor eye injuries.
- Paramedic scope of practice: required to conduct upskilling to have primary health service skills such as suturing and plastering.
- Doctor employment: full-time positions, facilities service agreement options or locum opportunities.

04 Diagnostics

- Radiology: X-ray facilities, casting and fracture management equipment. Operated by Global Diagnostics at all sites. Radiographer conducts scan, assessed by Doctor in Global Head Office.
 - Joondalup and Cockburn: until 10pm everyday. Bulk-billed (if not work related).
 - Armadale: 8am – 6.30pm Monday – Friday, 8am – 11am Saturday and Sunday. Bulk-billed (if not work related).
- Pathology: Operated by Cimpath Pathology at all sites.
 - Joondalup: 8am – 4.30pm Monday to Friday, 8am – 11am Saturday, no services Sunday. Bulk-billed.
 - Cockburn: 8.30am – 4.30pm Monday to Friday, no Saturday or Sunday services. Bulk-billed.
 - Armadale: 8am – 5pm Monday to Friday, 8am to 1pm Saturday and Sunday. Bulk-billed.

05 Access

Process for patient arrival: initial assessment by nurse, seen by a doctor with service provision complemented by NPs and paramedics.

- Via walk in: walk in, no appointment.
- Via secondary triage: paramedics assess a patient's unscheduled care requirements and determine the most appropriate care pathway in the best interests of the patient to UCC or to a public hospital ED - patients are made fully aware of the recommended approach to treatment.
- WA South Metropolitan Health Services: Development of joint model to provide care for patients with cellulitis in a UCC rather than hospital. Ongoing care: referred back to own GP, with patient notes transmitted to GP as they leave the UCC. Alternatively, patients may be booked into follow-up sessions for other services within the super clinic - eg physio, dental and removal of stitches.

06 Funding and costs

- Costs to patient: All locations offer bulk billing with a current Medicare Card (however, only available where a benefit exists). No costs for X-rays.
- Costs of acquiring Apollo Health: \$22m
- Funding model: previously, the four Apollo centres operated in the same way as other corporate facilities with the GPs bulk-billing patients and providing Apollo a commission for the use of staff and infrastructure. Now, all staff (including doctors) are salaried. The service model for St John is that the medical clinics must operate in a commercially successful way with funds generated being used to offset the cost of providing the urgent care centres.
- St John is the primary provider of ambulance services for WA, and receives funding for these services - may offset cost of UCC.

Evaluation

2016/17: saw 256,000 patients in primary care centres
2017/18: saw 288,600 patient in primary care centres

- 57,558 of these seen in 3 UCCs; 36 per cent increase on 2016/17
- 20,000 patients would have required ED presentation; approx. 55/day
- Ancillary services (pathology, medical imaging) increased by 20 per cent, and x-ray request by 78 per cent.
- Approx. 0.1 per cent required further ambulance transfer, with 97 per cent discharged to an alternate pathway or home.

KPIs: wait times, patient presentations, nature of referrals to ED

Strengths

- No costs to the patient
- Use of Medicare funding (bulk-billing)
- UCCs co-located with other health services (ie GPs, pathology), providing convenience to patients.

Weaknesses

- No capability to observe patients; service becomes too similar to a GP
- Facilities not purpose built; acquisition of old facilities that were not originally designed to provide a UCC function
- Perception of the service (by community and other health services).

Opportunities

- Referral to ComRRS for ongoing care.

Threats

- Threat to ongoing viability of existing GP services if UCC targets and treats patient cohort not needing to be seen in UCC.
- Threat to role of extended care paramedics.

Option 6

Option 6: Pegasus 24 Hour Surgery

An urgent care centre located in the CBD

- An accident and medical centre – more accurately described as a care facility - located in Christchurch CBD (New Zealand South Island) – that has been in operation since 2008.
- Only accident and medical centre that operates 24 hours per day with a particular focus on after hours care.
- Accepts patients of GPs who belong to Pegasus Health, patients not enrolled with a usual GP (who will be assisted to find one), and visitors to Christchurch.
- An independent business within Pegasus Health (Charitable) Ltd, a not-for-profit charitable company, which is also the largest Primary Health Organisation (PHO – since 2013) within the Canterbury region (approx 380,000 enrolled patients and employing over 85% of the city of Christchurch's GPs).
- Amalgamation of 109 general practices into Pegasus sold to have given a coherent voice and direction within primary care in Canterbury.
- The PHO arm of Pegasus Health also receives funding from District Health Board (DHB) to provide activity streams (ie education and acute community care).
- Approved as a RNZCUC Urgent Care Centre supplier an approved facility for Urgent Care medical training.

01 Location and opening hours

- Location: Christchurch CBD - 2.7 km from Christchurch Hospital Emergency Department – within 'Pegasus House' – purpose built building purchased and developed in May 2017 – co-located with 24 Hour Surgery and Pegasus Health support services.
- Opening hours: Twenty-four hours per day, seven days per week, 365 days per year (busiest times are 9am – 2pm and 5 – 8pm).

02 Service delivery

- No clinical inclusion criteria: "urgent medical issues you would otherwise see a GP for; if available, and urgent accident related injuries."
- Discounted acute sports injuries program: for registered sports organisations and schools, patients able to receive doctor consultation and x-ray for \$30, and referred if diagnosed with fracture to specialist fracture service for free – available after 8pm Monday to Friday and anytime on weekends.
- Acute community care: supports general practice teams in helping acutely unwell patients remain in home for treatment; specifically, supports patients with an acute episode of illness that may otherwise be admitted to hospital (conditions that would usually respond to treatment within 3-5 days) – patients usually referred from their GP to attend the Surgery (or from ED/ambulance), patients seen in Pegasus observation unit.

03 Workforce

- GPs and nurses (orthopaedic specialist, GPs, medical officers, acute demand RN (some with prescribing authorisation), RNs, orthopaedic nurses, healthcare assistants)
- Supported by: clinical director, GP clinical director, nurse clinical educator, etc
- Medical officers covered majority of shifts in 2016/17 (70 per cent), rather than GPs
- Staffed by GPs employed to work at 24 Hour Surgery (mainly Monday-Friday), and GPs who work at or own a general practice that is a part of Pegasus Health (mainly a weekend shift).

04 Diagnostics

- Fracture clinic: diagnosis + treatment of soft tissue injuries, including plastering
- Radiology: x-rays until 11pm, operated by Christchurch Radiology Group – checked by Radiologist following day
- Pathology: 24/7, until ordered if urgent – conducted by laboratory, sent offsite to lab.
- 5-bed observation unit: 5 bed unit – cases which require prolonged stay (max 4 hours) but no requirement for acute admission – described as 'hospital/level care' – no day stay or over night stay offered – only given antibiotics and fluid replacement therapy before referred home or to ED.

05 Access

- Via nurse assistance line: Independent after-hours registered-nurse triage service that provides advice (ie treat condition, to Pegasus, to ED).
- Via walk-in: walk-in service is appropriate for minor injuries.
- Secondary triaging (ambulance): for range of less serious exacerbations (pre-existing conditions – supported by ED, with Pegasus attendance fee waived).

06 Funding and costs

- Costs to patient (right) for a walk-in patient
 - If enrolled with ANY Christchurch GP: ~ \$15 less
 - If have Community Services Card: ~ \$22 less
- ECG: \$30 / Blood test: \$15 - \$20 / Sexual health: \$22 / Dressing: \$35 / X-ray: cost to patient
- Observation: free
- PHO function of Pegasus Health receives some funding from District Health Board

Evaluation

- For every 100 enrolled patients (with a GP in Christchurch), approx. 1.5 patients present in hours and 3.5 'out of hours'.
- Pegasus services found to stem growth in ED presentations, increase acuity of patients presenting to ED (measured by triage category), resulting in admission rate from ED to inpatient wards as highest in NZ.
- Pegasus enhanced primary care treatments (ie treatment of DVT prevents approx. 1,000 ED visits per year, and cellulitis approx. 700 per year).
- Collaboration between Surgery and ED to identify 'frequent flyer' non-urgent presentations (ie low SES patients) – approx. 50 referrals / month
- Surgery now sees approx. 75,000 a year vs 80,000 attendances at ED; take up of private out of hours and on weekends than the ED.
- GPs automatically associate Surgery with their own GP, GPs actively support onward referrals to GPs.
- GPs expressed concern re working beyond limits of expertise, as Surgery increases scope of services and handle more complex cases (assisted by phone access to hospital specialists).
- Hesitation by GPs to fully develop nurse practitioner and prescribing roles

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Strengths

- Part of an integrated network of health services
- Shared electronic medical records with other health services
- CBD location; easy access for walk in patients
- Clear difference from presenting at the ED
- Strong clinical governance
- Alliance between Christchurch GPs; able to share in risk and reward
- Capability to observe patients (4 hours)
- Co-location of health facilities and supporting services.

Weaknesses

- High costs to the patient
- Combination of different funding mechanisms (ie *Dept of Health, patient out-of-pocket, NZ Government no-fault accident scheme*)
- Has the ability to reach capacity quickly.

Opportunities

- Use of medical officers
- Mixture of Commonwealth and private health insurance funding
 - However, funding trials would need exemptions.

Threats

- Threat to GP services if cost model were made free to patient.

Model 1: Hobart

An urgent care centre located in the community

01 Location and opening hours

- Location:** In the community, on pre-existing site in Glenorchy.
- Opening hours:** Extended daytime hours (ie 6am – 10pm). Continuation of HealthDirect and/or GP Assist 24/7.

02 Service Delivery

- Clinical inclusion (only things capable of being treated in 4 hours)
- Observation bay (at least 7 beds) (up to 4 hours)
- Strong integration between ED, UCC, Ambulance, CoMRRS
- Edit/view access to DMR (Digital Medical Records), and notes to GP.

03 Workforce

- Nurse led model (particularly development of nurse practitioner role and extended scope of practice) with appropriate medical oversight**
- Allied health
- Connection to specialist at ED for advice
- Patient champion (responsible for discharge planning)

04 Diagnostics

- Rapid diagnostics:** Radiography, pathology, ultrasound, and point of care testing available.
- Pharmacy:** on-site, or ability for UCC to supply medications.

05 Access

Access:

- Phone triage:** HealthDirect and GP Assist (potentially combined), triage patients to UCC/ED, who also determine appropriateness of secondary-triaging from ambulance (ie GP holds a "Bat-phone" 24/7)
- Walk in:** on own accord (or, must be triaged through phone first)
- From GP:** capacity for direct referrals (ie book patient in)
- From ED:** referred to UCC when ED is over-capacity.
- From Ambulance:** appropriateness determined via phone triage.

Ongoing care:

- Escalation process to refer back to ED, or refer back to GP

06 Funding and costs

- Costs:** Free for vulnerable patients, and as low as possible for all other users. No costs for patients triaged from ambulance.
- Funding:** A public service **funded by the Tasmanian State Government**, which commissions Health Direct/triaging service.
- A cost-effective model that could enable potential PPP.

Model 2: Launceston

An urgent care centre located in the community

01 Location and opening hours

- Location:** In the community, where you don't first drive past ED. Possibly, integrating (co-located) with ComRRS
- Opening hours:** Extended daytime hours (ie 8am to 10pm), Continuation of HealthDirect and/or GP Assist 24/7.

02 Service Delivery

- Clinical inclusion: anything that doesn't need to go to the hospital but can't wait for a GP appointment
- Observation bay (up to 4 hours)
- Edit/view access to DMR (Digital Medical Records), and notes to GP.

03 Workforce

- Collaborative medical and nursing workforce; primarily GP led**
- Nurses (specifically paediatric and nurses that can do observations)
- Allied health (ie musculoskeletal physiotherapist)
- Patient champion (responsible for discharge planning)

04 Diagnostics

- Rapid diagnostics:** on-site imaging/x-ray (plain film) – radiographer onsite, radiologist offsite, bedside ultrasound. Tests ordered by NP/GP at triage.
- Pharmacy:** on-site, or ability for UCC to supply medications.

05 Access

Access: requirement to first determine if GP can see patient promptly.

- Phone triage:** integrate with tele-triage
- Walk in:** on own accord, or referred via triage.
- From GP:** capacity for direct referrals (ie book patient in)
- From ED:** referred to UCC when ED is over-capacity.
- From Ambulance:** appropriateness determined via phone triage.

Ongoing care:

- Refer to ComRRSs for at home follow-up and discharge summary to GP

06 Funding and costs

- Costs:** Free to patients.
- Funding:** A public service that **utilises Medicare funding (including for a private radiology/pathology service) as much as possible.**
- A cost-effective model that could enable potential PPP.

Key performance indicators and enablers

Potential UCC KPIs and associated enablers were developed jointly across both workshop sites following the design of Model 7a and 7b.

Possible outcomes/KPIs for UCCs

- Proportion of ED admissions out of total activity should increase
- Less than x% of UCC patients end up admitted or require transfer to ED
- Signing up patients to regular GP
- Patient experience should increase (ie decrease in wait times)
- ED and UCC activity does not exceed current projections
- Rate of return presentations should be low
- Cost per episode should be x% cheaper than ED
- Patient safety – incidence rates and other safety measures (relative to hospital rates)
- Potential reduction in NEAT times
- Published/publically available data so that lessons learned can be passed on to the public

Enablers

- Data needs to be comparable to ED
- Sharing of health information across entire health system (GPs and hospitals)

Parking lot – broader issues

Due to the timing constraints of the workshop, topics which were unable to be addressed during the workshop or that were beyond the scope of the project were ‘parked’ in the ‘parking lot’. All topics in the ‘parking lot’ will be discussed with the Department for consideration into the impact on the UCC feasibility assessment.

Topics related to either the broader Tasmanian health system or to UCCs.

‘Parking lot’ discussion that related to UCCs:

Inclusion or exclusion of mental health services from UCCs should be determined based on ED data

Naming the service – Urgent Care Centre or Medical and Injury Centre?

Requirement for a UCC in private hospital bids in Launceston and Hobart

Future requirement and model of HealthDirect and GP Assist

Bulk-billing funding exemptions under the Health Insurance Act

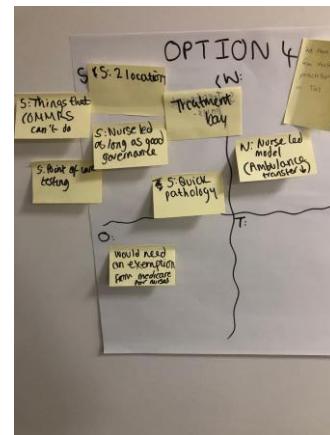
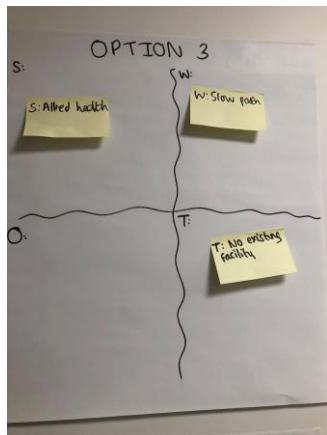
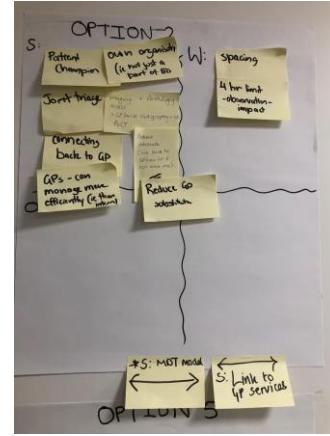
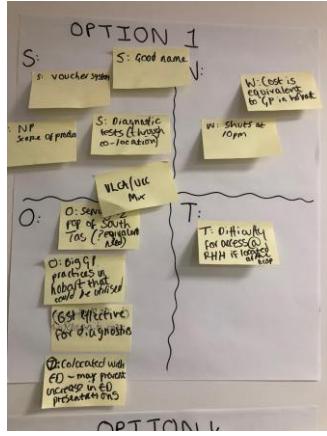
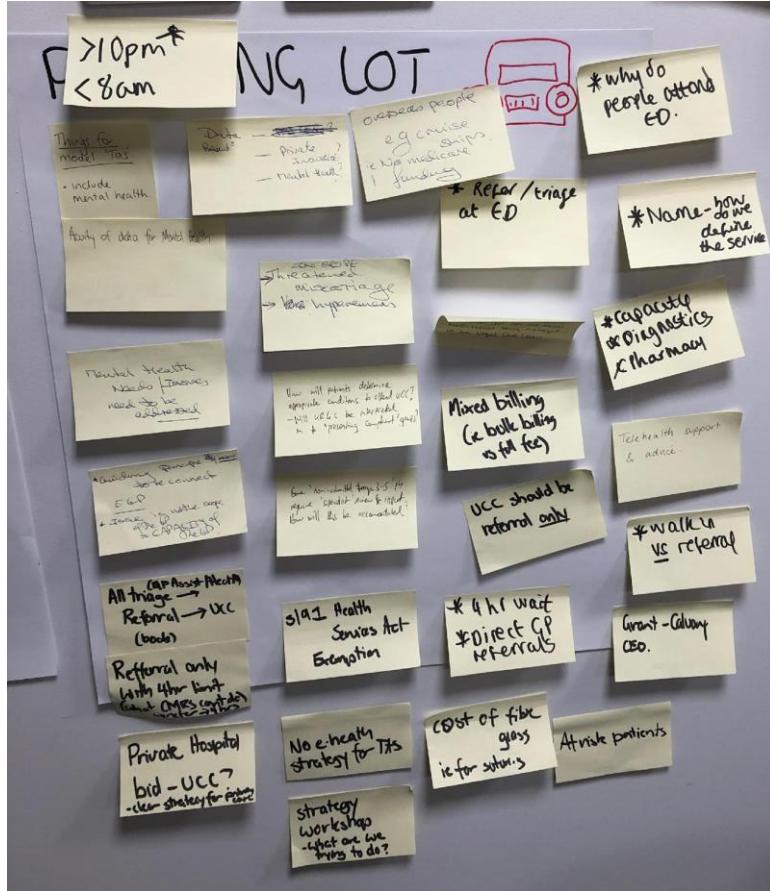
Regulatory implications of pharmacy services within UCCs

‘Parking lot’ relating to the broader health system

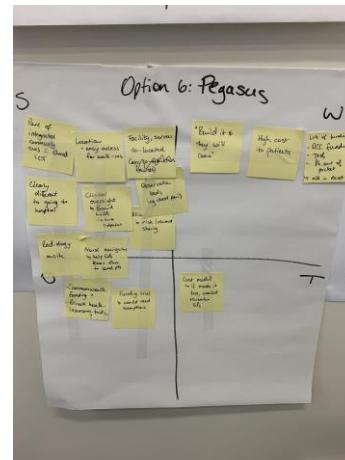
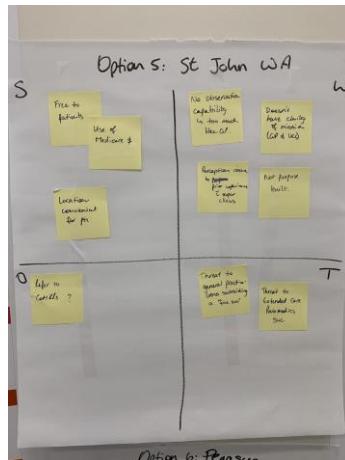
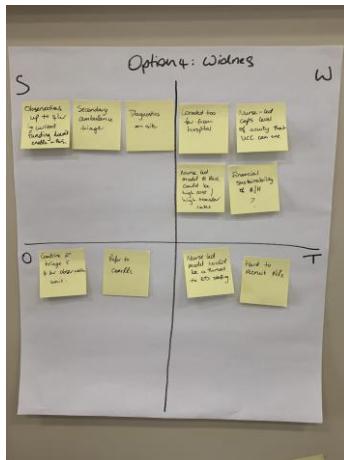
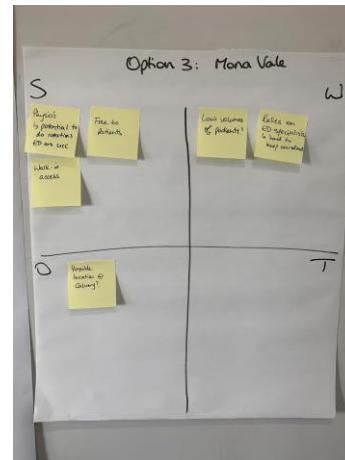
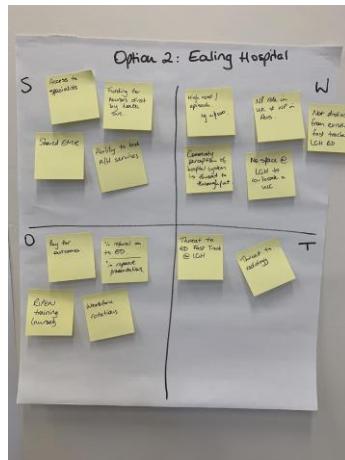
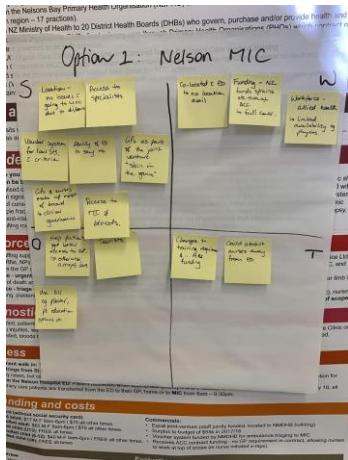
There is a need for system-wide strategic health planning; potentially a workshop following the conclusion of the UCC feasibility study

There is no eHealth strategy for Tasmania

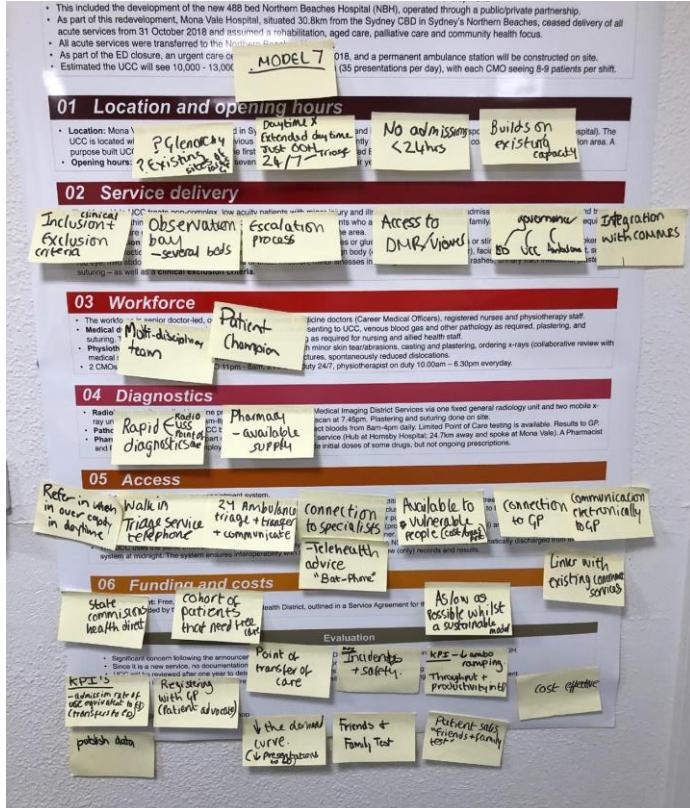
Workshop outputs: Hobart



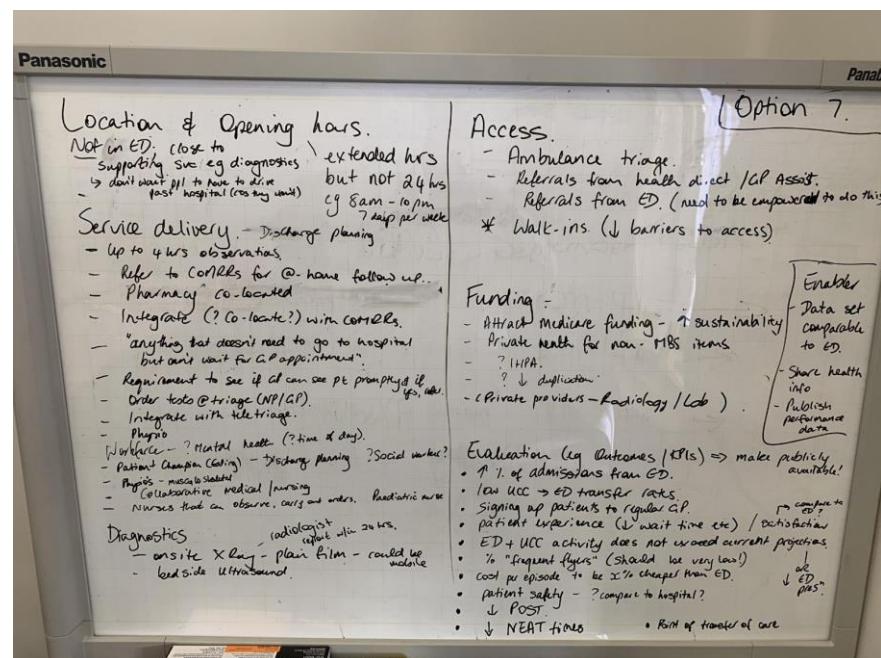
Workshop outputs: Launceston



Workshop outputs: Model 7a and 7b



Model 7a: Hobart UCC



Model 7b: Launceston UCC

Hobart workshop participants

Name	Position
Sal Bucksey	Health Stream Lead, Primary Health Tasmania
Narelle Butt	General Manager, Mental Health, Alcohol and Drug Directorate, Dept of Health
Rosie Crumpton-Crook	Ambulance Tasmania, Dept of Health
Dr Con Georgakas	Director Medical Services, Ambulance Tasmania
Laurie Kinnie	Principal Consultant, Dept of Health
Martin Hensher	Director, Monitoring, Reporting and Analysis, Dept of Health
Ross Smith (Project sponsor)	Deputy Secretary, Planning Purchasing and Performance, Dept of Health
Dr Allison Turnock	Medical Director, GP & Primary Care, Dept of Health
Dr Liz Webber	GP Liaison Officer South, THS
Sharon Williams	Nurse Manager, Integrated Operations Centre, Tasmanian Health Service

Launceston workshop participants

Name	Position
Ian Bell	Manager, Primary, Rural and Palliative Care, Health Planning, Dept of Health
Jacinta Ellis	Planning and Projects Consultant, Primary, Rural and Palliative Care, Health Planning, Dept of Health
James Harrison	Nursing Services Manager, St Lukes Health
Paula Hyland	Executive Director Allied Health, THS
Dr Jerome Muir-Wilson	Local General Practitioner
Meredith Prestwood	Nurse Practitioner, Community Rapid Response Service, THS
Dr Lucy Reed	Staff Specialist, Emergency Medicine, Launceston General Hospital

Appendix H Departmental contact group

Urgent Care Centre Reference Group

Name	Position
Ian Bell	Manager, Primary, Rural and Palliative Care, Health Planning, Dept of Health
Narelle Butt	General Manager, Mental Health Alcohol and Drug Directorate, Dept of Health
Phil Edmondson	CEO, Primary Health Tasmania
Jacinta Ellis	Planning and Projects Consultant, Primary, Rural and Palliative Care, Health Planning, Dept of Health
Dr Con Georgakas	Director Medical Services, Ambulance Tasmania
Dr Aaron Groves	Chief Psychiatrist, Mental Health Alcohol and Drug Directorate, Dept of Health
Neil Kirby	Chief Executive, Ambulance Tasmania
Prof Tony Lawler	Chief Medical Officer, Dept of Health
Peter Maree	Manager Strategy and Planning, Health Planning, Dept of Health
Dr Craig Quamby	Executive Director of Operations, Tasmanian Health Service Sth
Dr Raj Rajesh	Consultant Nephrologist, Dept of Medicine, Launceston General Hospital
Grant Smith	Integrated Operations Centre; Launceston General Hospital, Tasmanian health Service
Ross Smith (Chair)	Deputy Secretary, Planning Purchasing and Performance, Dept of Health

Urgent Care Centre – Departmental contact group

Name	Position
Ian Bell	Manager, Primary, Rural and Palliative Care, Health Planning, Dept of Health
Jacinta Ellis	Planning and Projects Consultant, Primary, Rural and Palliative Care, Health Planning, Dept of Health
Dr Allison Turnock	Medical Director, GP & Primary Care, Dept of Health
Ross Smith (Project sponsor)	Deputy Secretary, Planning Purchasing and Performance, Dept of Health

Appendix I Total cost of ownership

Hobart total cost of ownership (1)

Start of period	2019/20	2020/21	2021/22	2022-2030
Capital Costs				
Infrastructure				
Basic build	955,604	-	-	-
Clinical infrastructure refurbishment	990,964	-	-	-
Contingency Fee	20%	389,314	-	-
Total	2,335,882	-	-	-
Equipment				
X-Ray Machine	300,000	-	-	-
Bedside Ultrasound Machine	150,000	-	-	-
Portable ECG Machine	7,000	-	-	-
Bedside Monitoring System	40,000	-	-	-
Diagnostic ISTAT Analyser	12,000	-	-	-
MRx Machine - Heart Monitor	22,000	-	-	-
IV Pumps	36,000	-	-	-
WheelChair	1,000	-	-	-
Wheelchair Bariatric	1,500	-	-	-
Recliner Chair	24,000	-	-	-
Bariatric Chair	8,400	-	-	-
Bedside Tables	1,800	-	-	-
Procedure Trolleys	12,000	-	-	-
Patient Couches/Trolleys	-	-	-	-
Chairs - Visitors/Waiting	5,250	-	-	-
Bariatric Chairs - Visitor/Waiting	2,500	-	-	-
Desks	2,000	-	-	-
Office Chairs	1,600	-	-	-
Land Line Phone	1,000	-	-	-
Staffroom/Kitchenette	-	-	-	-
Bladder Scanner	22,000	-	-	-
Urinalysis Machine	8,000	-	-	-
Drug Fridge	10,000	-	-	-
Small Drug Fridge	6,000	-	-	-
Small Controlled Drug Safe	6,000	-	-	-
Dedicated Resus Trolley w/Defib	35,000	-	-	-
Large Procedure Trolley	2,000	-	-	-
Gown Trolley	-	-	-	-
Hi-Lo Beds with pressure relieving mattresses and w:	99,000	-	-	-
Total	816,050	-	-	-
Total Capital Costs	\$ 3,151,931.60	\$ -	\$ -	\$ -

Hobart total cost of ownership (2)

Start of period	2019/20	2020/21	2021/22	2022-2030
Operating Costs				
Staff Costs				
General Practitioner				
-		351,637	421,024	5,536,907
Registered Nurse (Grade 5 Yr 2)	-	338,927	345,367	3,355,311
Allied Health Profesional (Lvl 4 Yr 2)	-	194,498	232,877	3,062,583
Administrative (AO 3:3)	-	234,938	239,402	2,325,840
Nurse Practitioner (Grade 8 Lvl 2)	-	435,214	521,092	6,852,908
Security (HSO L4:2)	-	194,644	198,343	1,926,940
Contingency	10%	-	174,986	195,811
Total		1,924,845	2,153,916	25,366,538
Activity Costs				
Cost of Presentations	-	1,339,679	1,593,578	20,396,788
Contingency	10%	-	133,967.95	159,357.79
Total	\$	\$ 1,473,647.40	\$ 1,752,935.69	\$ 22,436,466.99
Total Operating Cost	\$	\$ 3,398,492.04	\$ 3,906,851.30	\$ 47,803,004.53
Total Cost of Ownership (annual)		\$ 3,151,931.60	\$ 3,398,492.04	\$ 3,906,851.30
10 year TCO		\$ 54,353,428		

Launceston total cost of ownership (1)

Start of period	2019/20	2020/21	2021/22	2022-2030
Capital Costs				
Infrastructure				
Basic build	955,604	-	-	-
Clinical infrastructure refurbishment	990,964	-	-	-
Contingency fee	20%	389,314	-	-
Total	2,335,882	-	-	-
Equipment				
X-Ray Machine	300,000	-	-	-
Bedside Ultrasound Machine	150,000	-	-	-
Portable ECG Machine	7,000	-	-	-
Bedside Monitoring System	40,000	-	-	-
Diagnostic ISTAT Analyser	12,000	-	-	-
MRx Machine - Heart Monitor	22,000	-	-	-
IV Pumps	36,000	-	-	-
WheelChair	1,000	-	-	-
Wheelchair Bariatric	1,500	-	-	-
Recliner Chair	24,000	-	-	-
Bariatric Chair	8,400	-	-	-
Bedside Tables	1,800	-	-	-
Procedure Trolleys	12,000	-	-	-
Patient Couches/Trolleys	-	-	-	-
Chairs - Visitors/Waiting	5,250	-	-	-
Bariatric Chairs - Visitor/Waiting	2,500	-	-	-
Desks	2,000	-	-	-
Office Chairs	1,600	-	-	-
Land Line Phone	1,000	-	-	-
Staffroom/Kitchenette	-	-	-	-
Bladder Scanner	22,000	-	-	-
Urinalysis Machine	8,000	-	-	-
Drug Fridge	10,000	-	-	-
Small Drug Fridge	6,000	-	-	-
Small Controlled Drug Safe	6,000	-	-	-
Dedicated Resus Trolley w/Defib	35,000	-	-	-
Large Procedure Trolley	2,000	-	-	-
Gown Trolley	-	-	-	-
Hi-Lo Beds with pressure relieving mattresses and w-	99,000	-	-	-
Total	816,050	-	-	-
Total Capital Costs	\$ 3,151,931.60	\$ -	\$ -	\$ -

Launceston total cost of ownership (2)

Start of period	2019/20	2020/21	2021/22	2022-2030
Operating Costs				
Staff Costs				
(GP) salaried medical practitioner Level 6				
(GP) salaried medical practitioner Level 6	-	689,548	825,613	10,032,062
Registered Nurse (Grade 5 Yr 2)	-	338,927	345,367	351,929
Allied Health Profesional (Lvl 4 Yr 2)	-	194,498	232,877	272,645
Administrative (AO 3:3)	-	234,938	239,402	243,951
Nurse Practitioner (Grade 8 Lvl 2)	-	-	-	-
Security (HSO L4:2)	-	194,644	198,343	202,111
Contingency	10%	-	165,256	184,160
Total		-	1,817,811	2,025,762
				2,180,906
Activity Costs				
Cost of Presentations		-	969,582	1,142,380
Contingency	10%	-	96,958.23	114,238.01
Total		\$ -	\$ 1,066,541	\$ 1,256,618
				\$ 1,447,423
Total Operating Cost		\$ -	\$ 2,884,352	\$ 3,282,380
				\$ 3,628,328
Total Cost of Ownership (annual)		\$ 3,151,932	\$ 2,884,352	\$ 3,282,380
10 year TCO		\$ 45,116,232		

Appendix J References

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