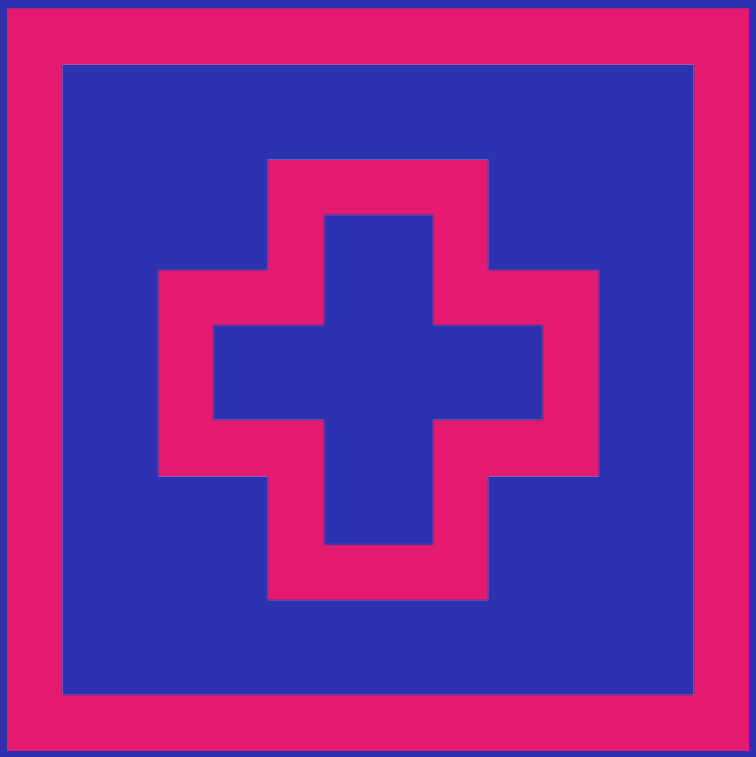
Making space for vulnerable people

Mental health patients in emergency departments



Hassell

Contents

Hassell
61 Little Collins Street
Melbourne VIC Australia 3000
T +61 3 8102 3000
hassellstudio.com
@hassell_studio

Contact
Michaela Sheahan
Senior Researcher
msheahan@hassellstudio.com
+61 3 8102 3000

Gold Coast University Hospital, Southport, Australia
Photography by Christopher Frederick Jones

INTRODUCTION

An emergency department is often the first port of call for a person experiencing a mental health crisis. These intense and dynamic spaces, designed for all manner of emergencies, can't always provide the calm and comfort that mental health patients require.

People presenting to emergency departments with psychiatric and drug and alcohol issues are using space more suited to medical patients. This can compromise both timely treatment of patients and the safety and wellbeing of staff and other patients. Ideally, emergency departments should provide separate areas with a therapeutic focus for mental health patients.

Hospitals approach the challenge of delivering differentiated mental health services in various ways, and their solutions generally fall into one of three categories – placing the mental health unit within an emergency department, adjacent to an emergency department, or a standalone mental health emergency facility. Each requires a different spatial solution that responds to the hospital's model of care, patient profile, available space and location.

Access to natural light and views to nature are proven to have a positive effect on the patient experience.
Fiona Stanley Hospital, Perth, Australia
Photography by Peter Bennetts

MAKING SPACE FOR VULNERABLE PEOPLE

Emergency departments can be stressful places for anyone, but particularly for the most vulnerable in our community.

Demand is up

Mental health presentations at emergency departments are on the rise. In the ten years to 2017, the Australian population increased by 15 per cent, but mental health presentations to emergency departments increased by 35 per cent.[1] In the UK between 2012 and 2016, the number of patients with psychiatric problems attending A&E units rose by nearly 50 per cent to 165,000. For the under 18s alone the numbers almost doubled to nearly 22,000.[2]

Across Australian hospitals the average proportion of emergency department presentations for mental health is currently 3.6 per cent of all patients, but in some locations, this figure is higher. In South Australia it is around 5 per cent,[3] as it is in the United Kingdom.[4]

At one Sydney hospital, as many as one in seven patients in the emergency department have mental health or drug issues.[3] The reasons for the increased numbers are well documented: greater awareness and incidence of mental health issues; reduced access to General Practitioners; socio-economic disadvantage, and a lack of alternative care options for those in crisis.

Wait times are too long

Compounding these problems, people presenting with mental health issues spend more time than other patients waiting for assessment, and are more likely to choose to leave before they have received treatment.

In Australia, while 90 per cent of other patients are treated within seven hours, mental health patients take an extra four and a half hours to reach that benchmark.[3]

Policies and targets for emergency department waiting times are set and reset, but have not kept pace with demand and circumstances.

Debates over how to efficiently and effectively provide community-based mental health services continue. There is general acceptance, however, that the emergency department, as one of most expensive areas of a hospital to run,[5] is neither the most clinically appropriate nor financially viable place for many mental health patients.

Directing patients to where they are most appropriately treated is in the hospital's AND the patient's best interests. These vulnerable people are coming to a place for care, and being confronted with an environment that might just make their situations worse.

And people are stressed

Aggression is commonplace in emergency departments. A major study by the UK's Design Council into violence and aggression within emergency departments in the NHS[7] found nine contributing factors:

1. Clash of people
2. Lack of progression/waiting times
3. Inhospitable environments
4. Dehumanising environments
5. Intense emotions in a practical space
6. Unsafe environments
7. Perceived inefficiency
8. Inconsistent response to 'undesirable' behaviour
9. Staff fatigue

Mental health patients can, and often do, arrive at emergency departments involuntarily with police or ambulance escort for their own safety or other immediate care.

This makes the emergency department a priority location within a hospital for security processes to protect others – through disarming, separating or de-escalating aggressive behaviour.

But it's drug and alcohol use, rather than mental ill health, that is the primary cause of aggressive incidents in emergency departments.[6]

The commonnplace aggression on display by others in emergency departments provides further stressors to already vulnerable mental health patients.

A service and a space

Factors three to six from the UK Design Council's study highlight where good design can make the most difference in outcomes for vulnerable people and all users of emergency departments.

An inhospitable environment in a hospital is a contradiction, and, for mental health patients in particular, a risk factor.

There is much research to suggest that a calm, humanising environment for mental health patients (in emergency departments and other psychiatric care settings) is more therapeutic than a standard, and very practical, clinical space. [8, 9, 10,11]

Best practice, evidence-based therapeutic spaces are designed to minimise the stressors of crowding, noise and light while also providing positive distractions such as views, nature and art.[8]

The challenge is to reconcile the efficiency, infection control and safety required of a dynamic emergency space with the care, privacy, calm and comfort that a patient in distress needs.

Design for mental health spaces must combine specialist staff and services with appropriate spaces in the right location. Whether that is within the hospital, in a specialist facility, or something in-between is a question many hospitals are grappling with.

Ipswich Hospital, Ipswich, Australia
Image by Hassell

SPATIAL APPROACHES

Design for mental health spaces must combine specialist staff and services with appropriate spaces in the right location. Whether that is within the hospital, a specialist facility or something in between is a question many hospitals are grappling with.

Extra services

Many hospitals are adopting a services-based approach. A hospital in Birmingham in the UK diverts mental health patients before they get to the emergency department by sending a psychiatric nurse to accompany paramedics on callouts. These nurses help patients access the most appropriate crisis services immediately.

Others employ dedicated psychiatric liaison nurses and peer support staff within the emergency department to help those in need.

Every hospital in the UK with a 24-hour consultant-led emergency department has a psychiatric liaison team on site, most of which operate around the clock.[12]

In Australia, The Royal Perth Hospital has a Homeless Team providing outreach to community services to address the issues of discharging a patient into homelessness, which is a major source of re-presentations to emergency departments.

And the Royal Prince Alfred Hospital Sydney has a nurse practitioner-led, extended hours service connected to the emergency department.[13]

Extra spaces

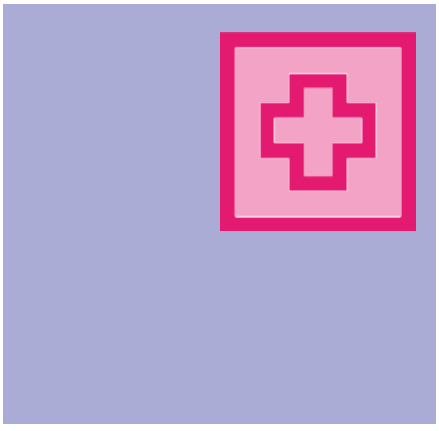
Alternatively, or in addition to, this services approach, more and more hospitals are providing specialised spaces to accommodate mental health patients. These approaches tend to fall into three general categories:

1. Within — the small, short stay mental health assessment or observation unit within the emergency department.
2. Adjacent — a separate, much larger specialised unit that connects directly to the emergency department, often with a small mental health unit within the main hospital building.
3. Standalone — a dedicated mental health hospital with an emergency department as well as inpatient and outpatient services.

Fiona Stanley Hospital, Perth, Australia
Photography by Peter Bennetts

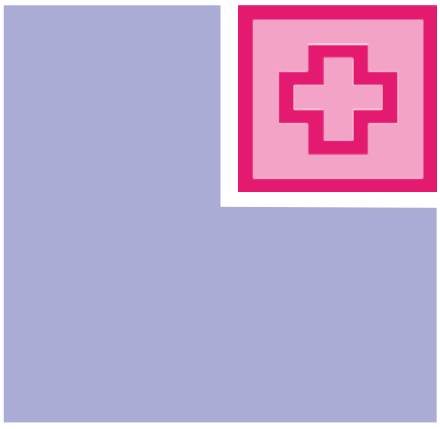
Within

A small, short stay mental health assessment or observation unit within the emergency department of a general hospital.



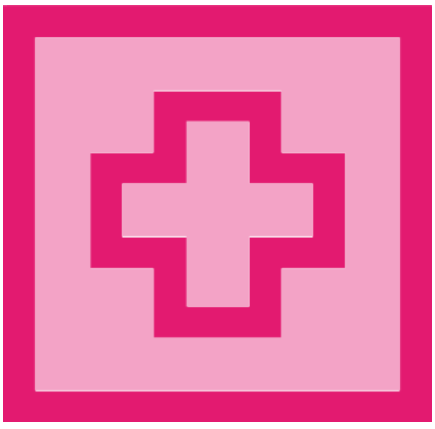
Adjacent

A separate, much larger specialised unit that connects directly to the emergency department. Often includes a short stay or observation unit within the main hospital building.



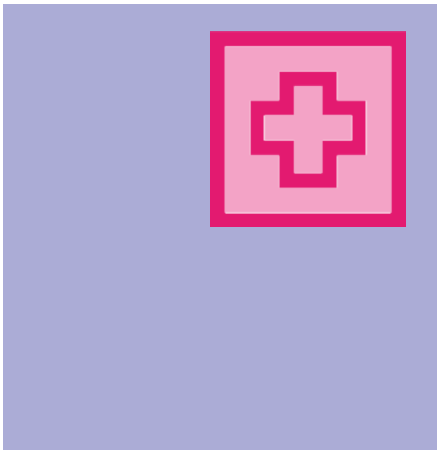
Standalone

A dedicated mental health hospital with an emergency department as well as inpatient and outpatient services.



WITHIN

A small, short stay mental health assessment or observation unit staffed by and located within the emergency department of a general hospital.



Hospitals with limited space and funding are opting to refurbish their emergency departments to separate patient cohorts into differentiated areas as soon as possible.

The challenge of rising numbers of mental health presentations is now acute. Emergency departments have always catered for this type of patient, but awareness of the benefits of a calmer, differentiated space for those in mental health crisis is now better understood by both health practitioners and designers.

Smaller hospitals can generally provide only limited mental health services within their emergency department. These services are often provided in small areas (or sometimes even individual rooms) that act as a stop-gap measure until a bed becomes available in a more suitable service, whether in a larger hospital or a specialist mental health facility.

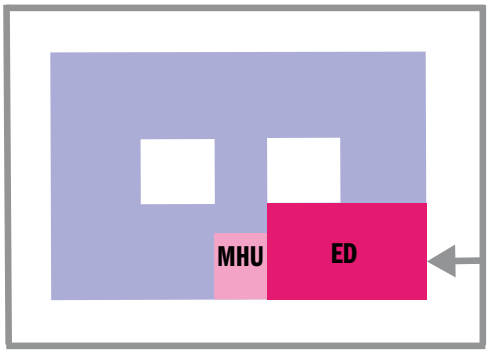
In this situation, some mental health patients are required to wait for many hours in curtained cubicles with limited privacy, with no access to outdoor space, natural light or views to nature, which can potentially lead to further deterioration in their condition.

Most emergency departments, even the smaller ones, now include a space for mental health presentations, but the staffing levels, privacy and safety of these areas varies in quality and quantity.

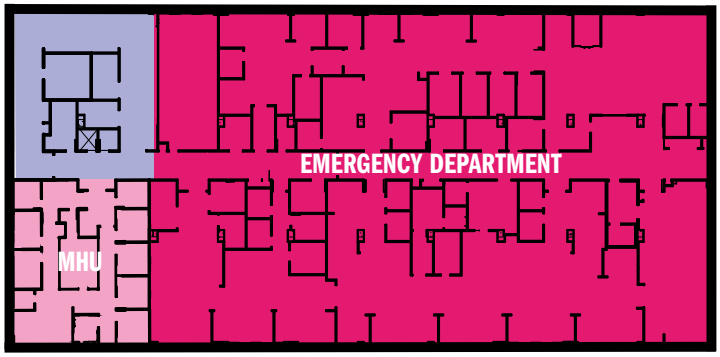
While standards of accommodation such as those by the Australian College of Emergency Medicine[3] stipulate minimum room sizes for mental health assessment and treatment areas, others such as the UK's Psychiatric Liaison Accreditation Network focus on privacy and safety requirements.[4]

These types of spaces have typically been harshly lit, over-subscribed, understaffed, or co-opted for other purposes like family rooms, waiting areas, and storage spaces. Staff also use them as behavioural assessment areas to safely separate drug and alcohol affected patients from other waiting patients and families.

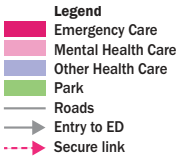
Many emergency departments are refurbishing and reorganising their layouts to accommodate mental health patients more appropriately. Whatever the purpose and size of these interim spaces, safety, separation and de-escalation of crises through a therapeutic environment are now important considerations in the design process.

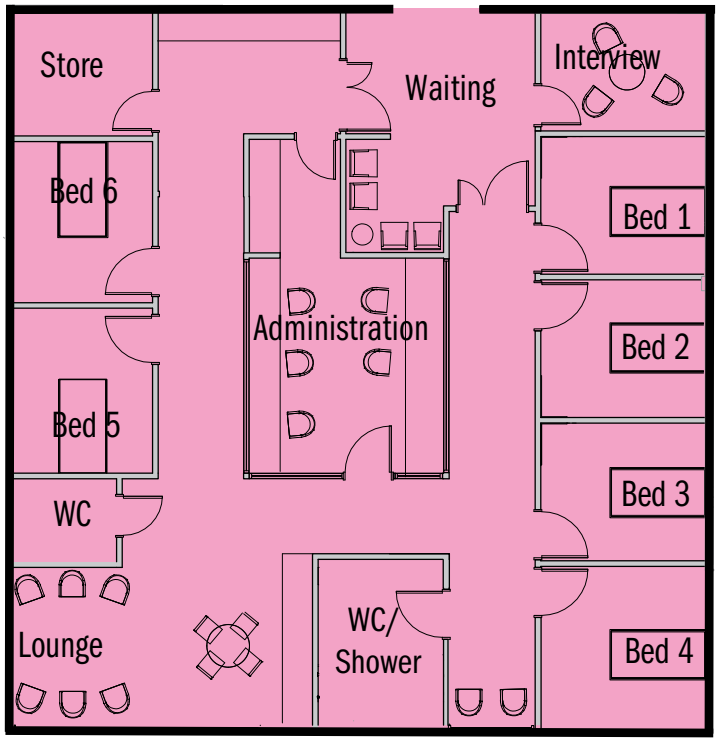


Generic hospital site plan



Excerpt, generic hospital floor plan

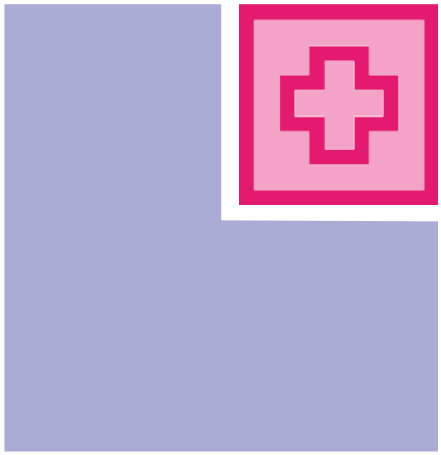




Indicative layout, short stay Mental Health Unit
for crisis care or observation

ADJACENT

A separate, much larger specialised facility that connects directly to the emergency department via a public or private route.



As models of care have changed over time, providing dedicated and appropriate spaces for vulnerable cohorts has become easier in new building projects than upgrades or refurbishments.

Older and large hospital sites close to or within central business districts often have development constraints because of land prices and limited spare space.

But existing hospitals located on larger, less built up sites are taking advantage of opportunities to expand specialist services while also maintaining small units for assessment.

Many hospitals now assess mental health patients in short stay or observation units within the emergency department before admission to specialist services that are just a short walk away, whether further into the hospital building, or in a separate, adjacent facility.

However, transferring distressed or unstable patients along public thoroughfares presents safety risks to staff and visitors as well as the obvious dignity and privacy issues for patients.

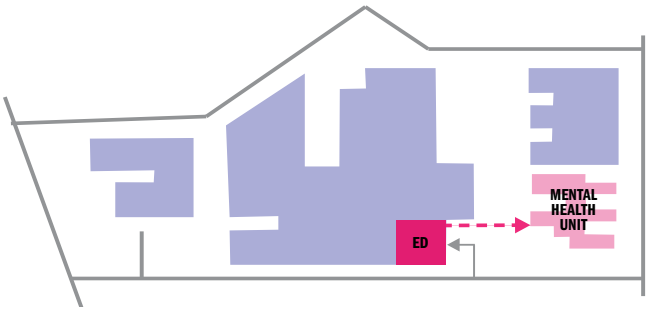
For many years, large, new (and often greenfield) hospital developments have opted to provide mental health patients with a direct link from emergency departments to a purpose-built facility that accommodates short stay and longer term treatment options. These are sometimes restricted to staff and patients to address these risks.

Images and site plans, page 11 (not to scale)

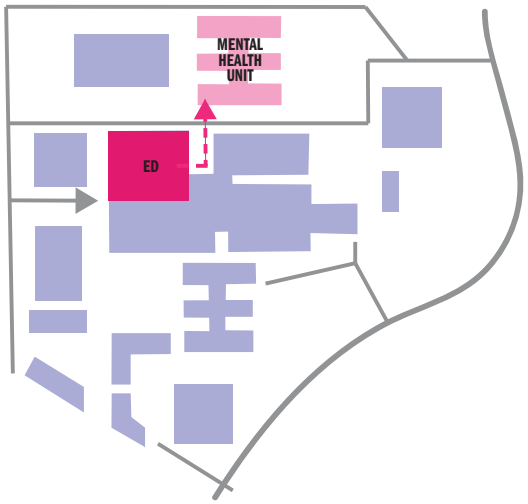
1. Townsville University Hospital Master Plan, Townsville, Australia. Image by Hassell
2. Fiona Stanley Hospital, Perth, Australia Photography by Peter Bennetts
3. Ipswich Hospital, Ipswich, Australia Image by Hassell

Adjacent

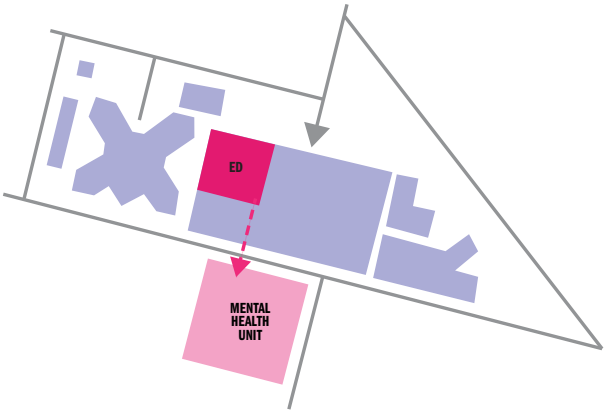
Fiona Stanley Hospital Site Plan



Townsville University Hospital Site Plan



Ipswich Hospital Site Plan



Legend
- Emergency Care
- Mental Health Care
- Other Health Care
- Park
- Roads
- Entry to ED
- Secure link

GOLD COAST UNIVERSITY HOSPITAL

Southport, Australia

Hospital stats

- Built 2012, designed by Hassell, Silver Thomas Hanley and PDT Architects
- 12 hectare site
- 750 hospital beds
- 114,000 total annual ED presentations

Mental health facilities

- Located ADJACENT to the emergency department
- 72 bed Mental Health Unit
- Direct entry or via ED

The Mental Health Unit (MHU) at the Gold Coast University Hospital (GCUH) is co-located in a parkland setting with a tertiary hospital, enabling extended care for patients with co-morbidities. It also offers access to educational and research opportunities associated with the hospital.

The MHU has its own street address but is also connected discretely with the emergency department of the main hospital. Selected lower risk profile admissions to the Unit are via the integrated admissions suite within the facility, enhancing patient privacy, dignity and safety.

The transition from the community to secure or low acuity care can be sensitive. At GCUH a Psychiatric Emergency Care Unit (PECU) located adjacent to the emergency department enables ambulances to discretely admit higher risk patients with a mental health presentation directly into the Unit.

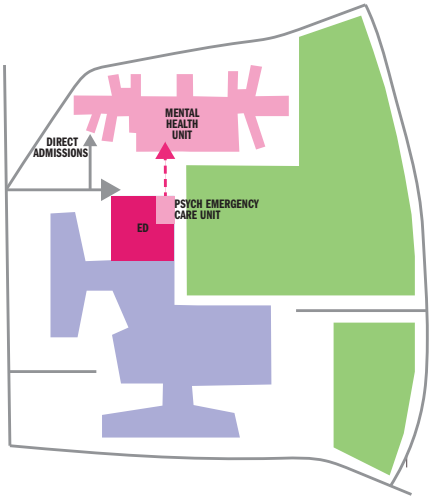
The PECU provides seclusion spaces with access to an ensuite and courtyard. These patients can then be admitted to the MHU, which is directly adjacent to Emergency, via an enclosed link that is separate to the link used by public and hotel services.

The MHU incorporates a single storey inpatient building with at-grade access from all areas to courtyard spaces.

The comfortable, domestic environment has been balanced with the need to provide a safe, secure and durable facility. The building layout allows for a high level of observation throughout common areas while patient bedrooms are designed to create a feeling of privacy.

Gold Coast University Hospital, Southport, Australia
Photography by Christopher Frederick Jones

Mental Health Unit, Gold Coast University Hospital, Southport, Australia
Photography by Christopher Frederick Jones



Gold Coast University Hospital Site Plan

Legend
Emergency Care
Mental Health Care
Other Health Care
Park
Roads
Entry to ED
Secure link

6%

increase in urgent ED presentations (2015–2017)

1,955

mental health admissions in 2017

13%

increase in mental health admissions in one year

PRINCESS ALEXANDRA HOSPITAL

Brisbane, Australia

Hospital stats

- → Built 2000, proposed mental health upgrade designed by Hassell
- → 20 hectare site
- → 1050 hospital beds
- → 65,000 total annual ED presentations

Mental health facilities

- → Located WITHIN the main hospital building and ADJACENT to separate facility
- → 4 room Mental Health Assessment Unit
- → 9 bed Short Stay Unit in hospital but separate to ED
- → 80 acute mental health beds for adults and older persons

Princess Alexandra Hospital is one of the biggest hospitals in Queensland, located on a large site two kilometres from the Brisbane city centre.

The hospital's mental health services are provided in several locations across the campus on the same floor as the emergency department, and another further into the main hospital building. In addition to these emergency facilities, the hospital has a separate wing for mental health inpatients, and an Adult Acute Psychiatric Unit adjacent to the emergency department.

Mental health related presentations now exceed emergency department capacity. As a result, Hassell is redesigning two areas of the hospital to provide a larger assessment unit for immediate care, and to move the short stay unit onto another floor of the hospital.

Having an Emergency Mental Health Assessment Unit close to, but separate from the emergency department will provide additional interview and consult rooms, a patient quiet room, dedicated consumer waiting areas – both secure and open – for up to eight patients, and a space for family to wait and be part of the care and discharge plan.

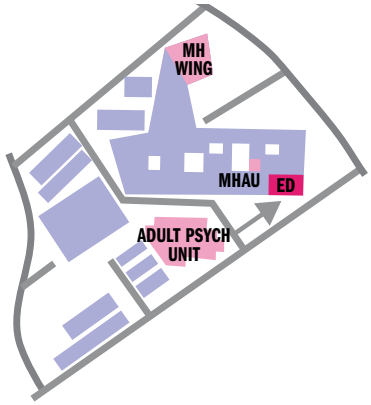
While the overriding principle of the design is staff and patient safety, creating a welcoming therapeutic space is also important.

The design will deliver an environment that supports patient privacy, autonomy and control, opportunities for social interaction, positive distraction and consideration of cultural sensibilities.

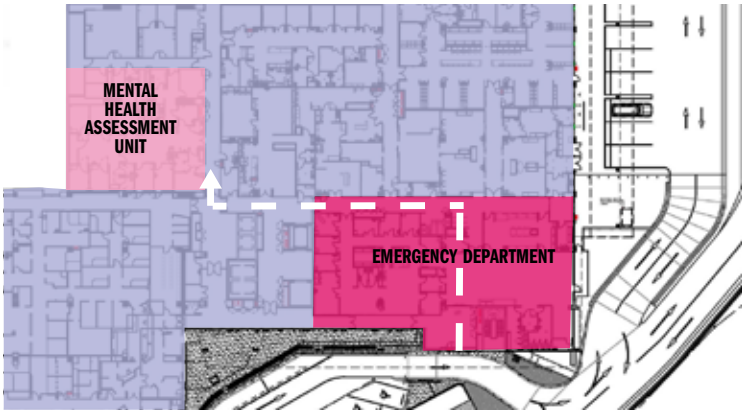
The existing short stay mental health beds in the emergency department will be moved to a new Mental Health Observation Unit co-located with the existing Acute Psychiatric Unit and away from the emergency department.

This space will provide specialised acute observation and treatment for nine beds for a maximum of three days.

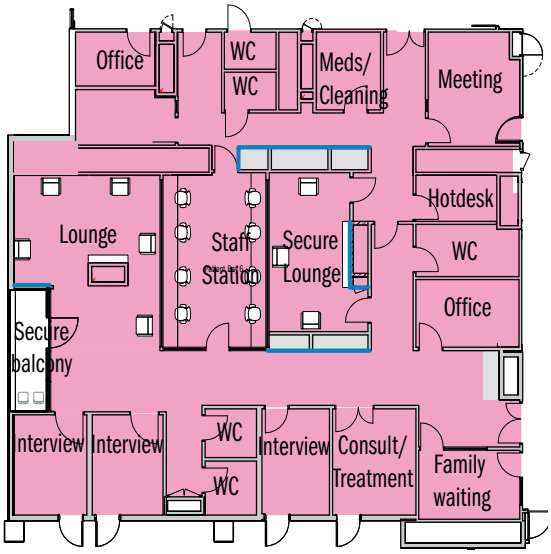
Adjacent



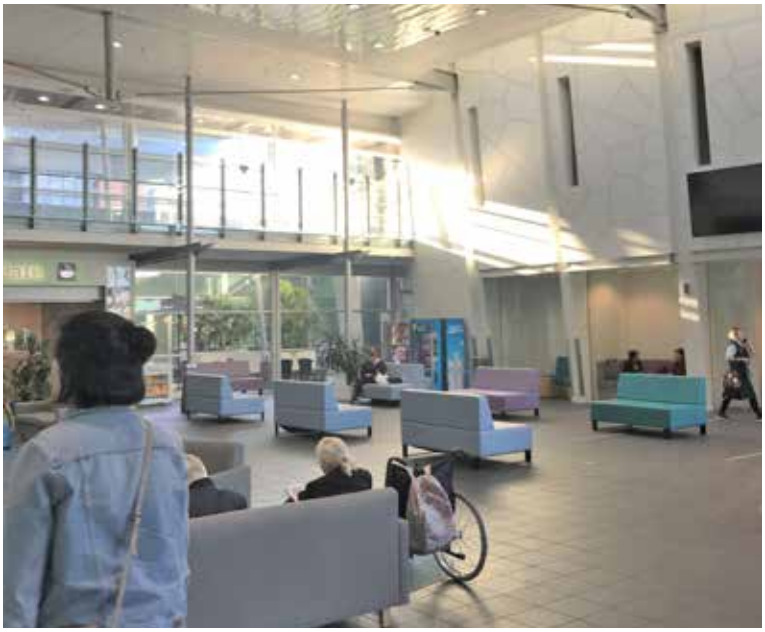
Princess Alexandra Hospital Site Plan



Ground Floor Plan



Princess Alexandra Hospital,
proposed Mental Health Assessment Unit



Existing waiting area , Princess Alexandra Hospital, Brisbane, Australia
Photography by Hassell

Legend
- Emergency Care
- Mental Health Care
- Other Health Care
- Park
- Roads
- Entry to ED
- Secure link

7%

increase in mental health admissions in one year

4,920

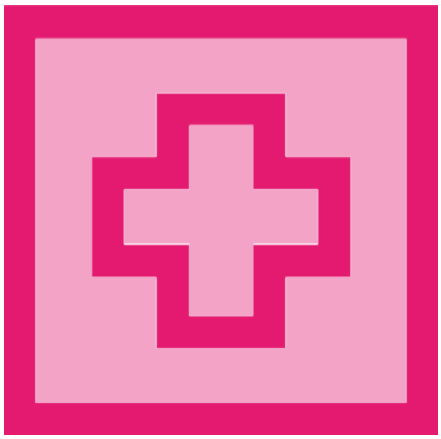
mental health admissions in 2017

5%

increase in urgent ED presentations (2015–2017)

STANDALONE

Most rare of the three spatial solutions is the dedicated mental health hospital that brings together inpatient, outpatient and emergency care in an integrated facility.



While dedicated psychiatric hospitals are not uncommon, these tend to concentrate on outpatient and inpatient clinical services, with crisis patients referred from emergency departments in general hospitals.

A building, cluster of buildings or even a precinct development where mental health is the exclusive focus enables the health service to attract a concentrated pool of specialists and services.

This ensures the right environment and the best qualified staff to care for this vulnerable cohort. But it is only truly viable in large urban centres where both specialist talent and space for co-located facilities are available.

Co-locating clinical services, research education and outreach programs in a prominent, central location allows better services coordination, more visible access and streamlined care for all patients, including those in crisis. It also alleviates pressure on general hospital emergency departments where staff may not have the skills or resources to assess mental health presentations, nor provide suitably therapeutic environments.

Centre for Mental Health and Addiction, Toronto, Canada
Photography by Michaela Sheahan

CENTRE FOR ADDICTION AND MENTAL HEALTH

Toronto, Canada

Hospital stats

- Ongoing development since 1998
- Critical Care Building opened 2014
- Various architects (Hassell not involved)
- 11 hectare site
- 500 beds
- 34,000 annual patients

Mental health facilities

- Standalone emergency department building
- 13,000 total annual ED presentations
- 125 crisis and critical care beds

7,000

mental health admissions annually

22%

increase in crisis & critical care presentations (2016–2019)

Toronto's Centre for Addiction and Mental Health is a world leading mental health organisation that employs 3,000 staff and has 500 beds, all for mental health patients.

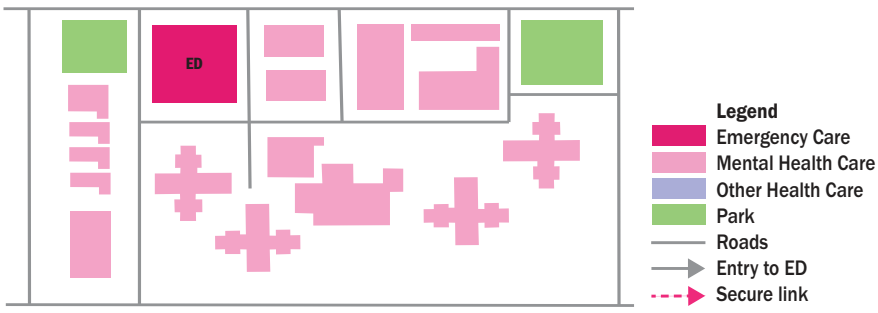
The Centre treats 34,000 patients annually, almost 7,000 of whom pass through the emergency room. Around one third of people admitted to the Centre suffer from substance use. Another one third suffer from schizophrenia, 15 per cent from bipolar conditions, 14 per cent from depression, and four per cent from personality disorders. [14]

The Centre originated as the Provincial Lunatic Asylum in 1850 and has grown over the years into a major mental health services precinct. It brings together advocacy, research, inpatient, outpatient, and emergency mental health services for all ages, together with residential buildings and a park.

A significant redevelopment of existing and new buildings began in 1998 when several mental health services amalgamated and began to co-locate on a ten hectare campus in the western end of downtown Toronto.

The city location is significant for its proximity to other major hospitals (The Sick Kids, Toronto General, Princess Margaret Hospital, etc.), and The University of Toronto, but also because it signals a deliberate attempt to be less institutional and more community facing.

The multi-billion dollar mixed use development will take another ten years to complete. Two major new buildings opened in 2020 – the McCain Complex Care and Recovery Building, and the seven storey Crisis and Critical Care Building, which houses a 24/7 emergency department, hospital and outreach programs, inpatient rooms, and telemedicine services. Planning is now underway for a forensic mental health facility on site. [15]



Centre for Addiction and Mental Health Site Plan

Royal Melbourne Hospital emergency department, Melbourne, Australia
Photography by Dianna Snape

REFERENCES

1. AIHW, 2020. Mental Health Services in Australia, Australian Government. Website at https://www.aihw.gov.au/reports/mental-health-services/mental-health-services-in-australia/report-contents/hospital-emergency-services
2. Triggle, N and Woodcock, S. 2017. Steep Rise in A&E Psychiatric Patients, BBC Website at https://www.bbc.com/news/health-38576368
3. Duggan M, Harris B, Chislett WK & Calder R. 2020. Nowhere else to go: Why Australia's health system results in people with mental illness getting 'stuck' in emergency departments. Mitchell Institute Commissioned report 2020, Victoria University. Website at https://acem.org.au/Content-Sources/Advancing-Emergency-Medicine/Better-Outcomes-for-Patients/Mental-Health-in-the-Emergency-Department/Nowhere-Else-to-Go-Report
4. Bolton, J., Palmer, L., Cawdron, R. 2016. Survey of psychiatric assessment rooms in UK emergency department BJPsych Bulletin 2016 Apr; 40(2): 64–67 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4817647/
5. Music, L. 2020 The high cost of keeping patients in ED. South West Sydney Research Institutue. Website at https://www.southwestsydneyresearch.org.au/the-high-cost-of-keeping-patients-in-ed/
6. Nikathil, S., Olaussen, A., Symons, E., Gocentas, R., O'Reilly, G., and Mitra, B. 2018. Increasing workplace violence in an Australian adult emergency department Emergency Medicine Australasia (2018) 30, 181–186
7. Design Council, 2011. Reducing aggression in A&E Through A Better Experience. CABE, UK. https://www.designcouncil.org.uk/sites/default/files/asset/document/ReducingViolenceAndAggressionInAandE.pdf
8. Ulrich, R., Bogren, L., Gardiner, S., Lundin, S. 2000 Psychiatric ward design can reduce aggressive behavior. Journal of Environmental Psychology Vol57, June 2018, pp 53-66, Elsevier. Website at https://www.sciencedirect.com/science/article/pii/S0272494418303955
9. Liddicoat S. Designing a supportive emergency department environment for people with self harm and suicidal ideation: A scoping review. Australasian Emergency Care. 2019;22:22. https://www.ausemergcare.com/article/S2588-994X(19)30029-6/pdf
10. Golembievski. J. 2015. Mental Health Facility design: The Case for Person-Centred Care. Australian and New Zealand Journal of Psychiatry Vol. 49(3) 203 –206, 2015
11. Connellan, K., PhD., Gaardboe, M., M.A., Riggs, D., PhD., Due, C., PhD., Reinschmidt, A., & Mustillo, L. (2013). Stressed spaces: Mental health and architecture. HERD : Health Environments Research & Design Journal, 6(4), 127-68. Retrieved from http://ezproxy.slv.vic.gov.au/login?url=https://www-proquest-com.ezproxy.slv.vic.gov.au/docview/1497173419?accountid=13905
12. NHS 2020. Crisis and Acute Mental Health Services. Website at https://www.england.nhs.uk/mental-health/adults/crisis-and-acute-care/
13. Australian College of Emergency Medicine, 2014. Emergency department Design Guidelines, Website at www.acem.org.au/getmedia/faf63c3b-c896-4a7e-aa1f-226b49d62f94/G15_v03_ED_Design_Guidelines_Dec-14.aspx
14. Hall, J. 2018. I walked out and the world had transformed': As CAMH remakes itself, patients feel the difference. The Star, January 13, 2018. Website at www.thestar.com/news/insight/2018/01/13/i-walked-out-and-the-world-had-transformed-as-camh-remakes-itself-patients-feel-the-difference.html
15. Centre for Addiction and Mental Health, 2020. Website at www.camh.ca/en/driving-change/about-camh

Studios

Brisbane
36 Warry Street
Fortitude Valley QLD Australia 4006
T +61 7 3914 4000
E brisbane@hassellstudio.com

Hong Kong
22F, 169 Electric Road
North Point Hong Kong
T +852 2552 9098
E hongkong@hassellstudio.com

London
1 Curtain Place
London EC2A 3AN United Kingdom
T +44 20 7490 7669
E london@hassellstudio.com

Melbourne
61 Little Collins Street
Melbourne VIC Australia 3000
T +61 3 8102 3000
E melbourne@hassellstudio.com

Perth
Level 1
Commonwealth Bank Building
242 Murray Street
Perth WA Australia 6000
T +61 8 6477 6000
E perth@hassellstudio.com

San Francisco
650 California Street
Level 7
San Francisco CA 94108 United States
T +1 415 860 7067
E sanfrancisco@hassellstudio.com

Shanghai
12F base 45 Caoxi North Road
Xuhui District Shanghai 200030 China
T +8621 5456 3666
E shanghai@hassellstudio.com

Singapore
33 Tras Street
#02-01 078973 Singapore
T +65 6224 4688
E singapore@hassellstudio.com

Sydney
Level 2 Pier 8/9
23 Hickson Road
Sydney NSW Australia 2000
T +61 2 9101 2000
E sydney@hassellstudio.com