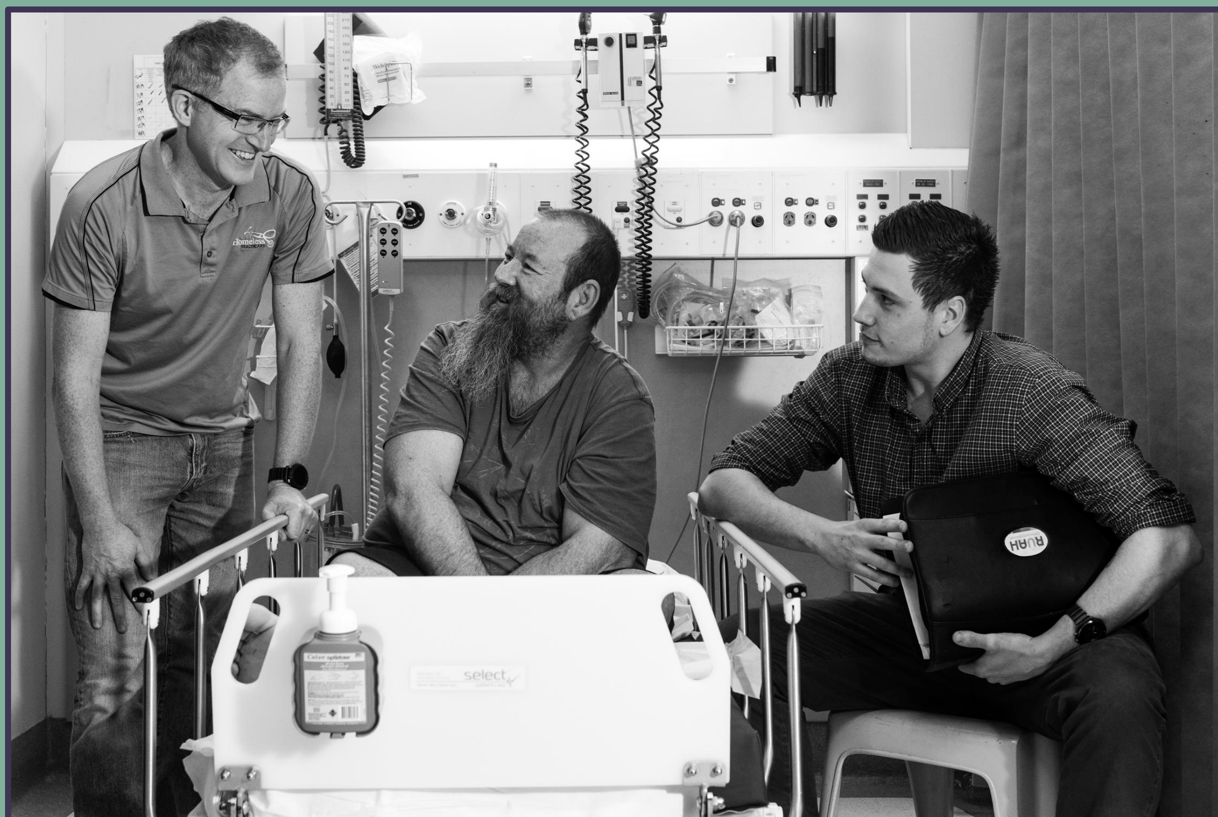
Royal Perth Hospital Homeless Team



A REPORT ON THE FIRST TWO AND A HALF YEARS OF OPERATION

FEBRUARY 2019

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Emergency Departments are increasingly strained across Australia and there is urgent need for innovative ways to address the high rates of ED presentations among people who are homeless.

Over two and a half years, Royal Perth Hospital's Homeless Team has demonstrated how a hospital can break the cycle of homeless people presenting to emergency departments. Most EDs are only resourced to respond to immediate medical issues, with homeless people then discharged back to the streets.

The Homeless Team has been proactive in connecting rough sleepers with stable housing and support, and once housed, other health and social issues can be addressed.

This is a program that needs recurrent funding and should be rolled out across Australia.

–Australasian College for Emergency Medicine

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All quotes from inter-state colleagues and staff at Royal Perth Hospital are used with permission, and we are grateful for the insights they have shared.

Last but by no means least, we acknowledge the many people experiencing homelessness in Perth – it is for the ‘people behind the statistics’ and the imperative to reduce the enormous health disparities that coalesce with homelessness, that we do this research.

Disclaimer

The opinions expressed in this report reflect the views of the authors and do not necessarily reflect those of the RPH Homeless Team or Royal Perth Hospital more broadly. No responsibility is accepted by Royal Perth Hospital for the accuracy or omission of any statement, opinion, advice of information in this publication.

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Acronyms and Abbreviations

ABI	Acquired Brain Injury
AOD	Alcohol and other Drugs
CBD	Central Business District
CEO	Chief Executive Officer
DAMA	Discharged Against Medical Advice
DDI	Data and Digital Innovation
ED	Emergency Department
EMHS	East Metropolitan Health Service
EMW	Emergency Medicine Ward
FTE	Full Time Equivalent
GP	General Practitioner
HHC	Homeless Healthcare
HODDS	Homeless Outreach Dual Diagnosis Service
HOPE	Homelessness Opportunities for Presentations to Emergency
ICU	Intensive Care Unit
IHPA	Independent Health Pricing Authority
IVDU	Intravenous Drug User
KISP	Katherine Individual Support Program
LOS	Length of Stay
NFA	No Fixed Address
NSW	New South Wales
PTSD	Post-Traumatic Stress Disorder
RPA	Royal Prince Alfred
RPH	Royal Perth Hospital
SA	South Australia
SD	Standard Deviation
SESLHD	South Eastern Sydney Local Health District
SSEH	South Sydney Eye Hospital
STU	State Trauma Unit
UK	United Kingdom
UWA	The University of Western Australia
VI-SPDAT	Vulnerability Index and Service Prioritisation Decision Assistance Tool
WA	Western Australia
WAAEH	WA Alliance to End Homelessness
WACH	WA Council on Homelessness

Executive Summary

Background

Homelessness is a massive social, humanitarian and health issue in Western Australia. It results in adverse health outcomes including increased mortality and multiple morbidities. Furthermore, people experiencing homelessness often face significant barriers to accessing primary and community care, resulting in increased burden on costly, acute care services.

The Royal Perth Hospital (RPH) Homeless Team is a collaboration between RPH and Homeless Healthcare (HHC) General Practice. The RPH Homeless Team provides in-reach General Practitioner (GP) care, enhanced care coordination and discharge planning that improves continuity of care for RPH patients experiencing homelessness. Based on the UK Pathway model, the RPH Homeless Team works to link patients with services that address underlying psychosocial determinants thereby enabling stabilisation of their health.

This second evaluation report provides an overview of the RPH Homeless Team model of care, patient demographics, changes in healthcare utilisation as a result of support from the team and initiatives and collaborations the Homeless Team have embarked on to improve the care and health of people experiencing homelessness.

Key Findings

Processes and Patient Flow

The RPH Homeless Team comprises of a Clinical Lead, Administration Assistant, HHC GPs and Nurses and a Caseworker. Since its commencement in June 2016 the team has undergone several changes. Most notably increased funding allowed for a dedicated, full time caseworker until June 2019 and this has expanded capacity to address drivers of frequent hospital utilisation.

In the first two and a half years of service delivery, the Homeless Team provided 2,486 separate consultations during 1,812 episodes of care to 1,014 patients. The majority of these patients were not known to HHC prior to their Homeless Team contact, demonstrating this cohorts' disengagement and lack of access to primary care in the community.

Demographics, Housing History and Vulnerability

Patients seen by the RPH Homeless Team had an average age of 44 at their first contact and the majority (86%) of patients were born in Australia. Patients who identified as Aboriginal and/or Torres Strait Islander were overrepresented compared to the general population, accounting for 29% of patients seen by the Homeless Team. Significant housing needs were common amongst patients seen by the RPH Homeless Team, at first contact with 73% of patients were rough sleeping.

For the subset with self-report VI-SPDAT (Vulnerability Index Service Prioritisation Assistance Tool) data, it was found that over 70% of RPH Homeless Team patients scored above 10 indicating very high levels of vulnerability amongst the cohort.

Health Profile

Poor health and multi-morbidity is commonplace amongst patients seen by the RPH Homeless Team. The health conditions affecting these patients are often exacerbated by their experience of homelessness. The most common physical, psychiatric and alcohol and other drug (AOD) related pre-existing conditions upon first contact with the Homeless Team

were hepatitis B and C (28%), depression (26%) and methamphetamine use (34%).

Health Service Utilisation

Support from the RPH Homeless Team was associated with reductions in ED presentations and inpatient admissions at EMHS Hospitals. Compared to the 12 months prior to fist contact with the RPH Homeless Team, reductions in hospital utilisation in the year following support resulted in cost savings of $4,600,008 or $7,302 per patient. There was also a substantial reduction in the proportion of NFA patients amongst the most frequent presenters at RPH ED, from 80% of the top ten most frequent presenters in 2017 to 30% in 2018.

Targeted Initiatives

The RPH Homeless Team has identified several unmet needs and been proactive in providing targeted interventions to fill these gaps. Firstly, the Homeless Team secured funding for a full time caseworker until June 2019 through the East Metropolitan Health Service (EMHS). This has been enabled an expansion of the role and allowed patients to continue receiving support in the community.

The Winter Demand Reduction Strategy provided funding between June and November 2018 to reduce hospital attendances and admissions during the winter flu season; a period associated with increased pressure on hospital capacity. This pilot project allowed the Homeless Team to extend HHC nurse and caseworker hours, offer influenza vaccines for all their patients prior to discharge, and gave them access to $36,000 brokerage funds. These funds were mostly used to cover short-term accommodation costs, providing safe, secure places for patients to recuperate whilst reducing length of stays and readmissions.

Commencing in February 2019, HODDS is a pilot project under the umbrella of HHC that offers outreach psychiatric care to patients experiencing homelessness with a dual diagnosis of AOD and mental health issues. The service is staffed by an addiction psychiatrist and a mental health nurse, and will work within existing HHC mobile clinics, allowing continuity of care with HHC GPs. RPH Homeless Team patients with a dual diagnosis will be able to be linked into HODDS through the existing HHC connection.

Collaborations

The growing recognition of the RPH Homeless Team nationally and internationally has allowed a number of collaborations and dissemination activities, with several interstate organisations sending delegates with the view of adapting the model for their own jurisdiction. Visits from Dr Nigel Hewett (Medical Director of Pathway UK) and Dr Jim O'Connell (Founding Physician of Boston Health Care for the Homeless Program) brought shared learnings and insights from international settings, as well as opening the door for future collaborations. A reciprocal visit to Pathways UK in London will take place in March 2019, coinciding with the Homelessness and Health Symposium, where Dr Amanda Stafford (RPH Homeless Team Clinical Lead) is presenting, enabling knowledge dissemination to an international audience.

Conclusion

This report outlines the expansion and evolution of the RPH Homeless Team since its commencement, with team structure changes, targeted initiatives and collaborations improving the support provided to a cohort of highly vulnerable individuals. The RPH Homeless Team provides an essential service supporting and improving outcomes for one of the most vulnerable patient groups seen at RPH, and reducing demand on strained health system resources.

1. Introduction

Homelessness is strongly associated with multiple morbidities, reduced life expectancy and costly recurrent hospital use. With an increasingly strained health system in Australia and widening health disparities, there is both a fiscal and public health imperative to reduce homelessness and associated health impacts.

> We need to intervene differently and earlier to overcome the steep precipice of health inequity experienced by people who are homeless… How we address the needs of our most marginalised populations is not only part of our duty of care as health professionals, but a fundamental marker of our humanity.[1]

As an inner city hospital in close proximity to places frequented by people who are homeless, Royal Perth Hospital (RPH) sees firsthand many patients cycling between homelessness and the health system. In response to this, the RPH Homeless Team commenced in June 2016 as an evidence-based partnership between the hospital and Homeless Healthcare (HHC) to provide a way for some of the most vulnerable and most frequent users of the health care system to exit the cycle. The multidisciplinary Homeless Team represents a partnership between HHC, RPH and General Practitioner (GP) in-reach into the emergency department (ED) and wards where there are patients experiencing homelessness. The team links patients with GPs and existing community-based supports as well as accommodation providers to address social issues alongside health issues.

This second evaluation report describes the evolution and impact of the RPH Homeless Team over its first two and a half years of operation.

1.1. Homelessness in Western Australia

Primary Homelessness
Rough sleeping or improvised dwellings No access to conventional accommodation
Secondary Homelessness
Temporary shelters or accommodation e.g. couch surfing & emergency accommodation
Tertiary Homelessness
Accommodation that does not meet minimum standards e.g. overcrowded, boarding houses, caravan parks

Figure 1: Type of Homelessness

Homelessness is a massive humanitarian and social issue in Western Australia (WA), with more than 9,000 people estimated to be experiencing homelessness in WA on any given night in the 2016 Australian Census.[2] Homelessness extends beyond the absence of housing and encompasses those living in precarious temporary accommodation, vehicles or housing that is overcrowded or unsuitable.[2] Among those experiencing homelessness, it is people experiencing primary homelessness (Figure 1) that are the most disengaged from support, have the worst health outcomes and present the largest economic burden to the health system.[3]

Homelessness in Perth is by no means confined to the inner city area, although the majority of homeless services are concentrated around the CBD, and this in part explains the high numbers of homeless patients seen at RPH. Whilst a significant proportion of Perth's rough sleepers frequent the CBD area, others indicate that they sleep in outer suburbs, where it is perceived to be safer, and travel to access services in the CBD during the day.

1.2.Homelessness and Health

Homelessness has a profoundly negative impact on health and wellbeing. In a recent systematic review and meta-analysis published in The Lancet, people experiencing homelessness and other socially excluded population groups living in high income countries had mortality rates around ten times that of the general population.[5] A similar global pattern is observed in morbidity data, with much higher rates of a wide range of physical and mental health conditions often exacerbated by complex multimorbidities.[6-9] Homelessness and its health consequences manifest from a complex combination of socially determined issues, including trauma, social isolation, early life experiences and addiction.[9]

…without a place to live, it's nearly impossible for a person to take care of their basic health needs [4 pE1]

Medical treatment alone, therefore, cannot curb the over-representation of people who are homeless in the WA health system. Indeed the most effective form of healthcare for people experiencing homelessness is housing,[1] and mounting evidence points to the economic and health benefits that can accrue for the health sector when people connected to housing and support.[10]

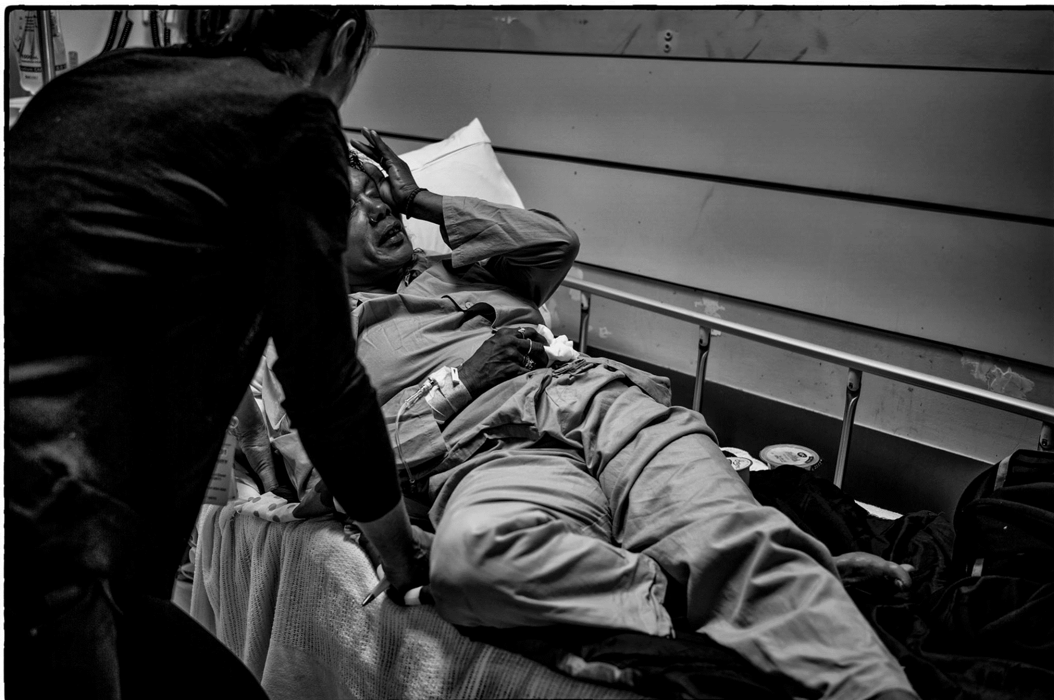


Photo 1: Homeless Team Nurse Assisting Patient

1.2.1. Homelessness and Health Service Use

Homelessness presents substantial logistical and psychosocial barriers to accessing mainstream primary healthcare services, exacerbating the disproportionate rates of chronic health conditions amongst people experiencing homelessness.[12] People who are homeless tend to engage primarily with the acute health system, often only when their health deteriorates to the point of being in crisis or life threatening.[8] Acute health services such as EDs are however, generally ineffective settings for unravelling the complex, chronic illnesses that are the norm for those experiencing homelessness.[13] People experiencing homelessness are often discharged once back at baseline to unstable housing situations, where their health continues to deteriorate, leading to frequent readmissions (see Figure 2).

> Reliance on emergency services inevitably fails to address their [people who are homeless] living and social conditions; this leaves the healthcare system overburdened and at the same time ineffective for addressing healthcare issues caused by homelessness[11 p.11]

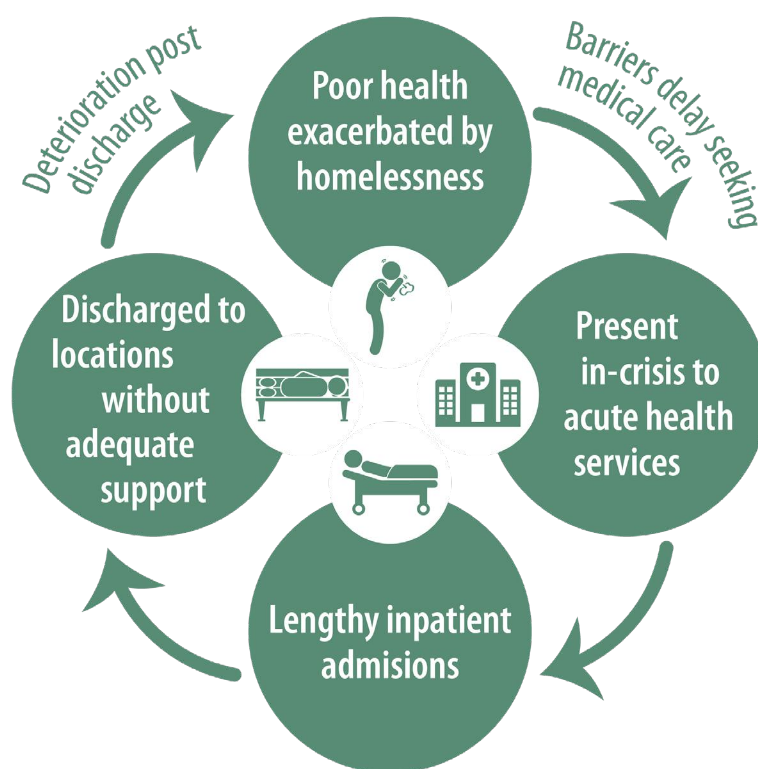


Figure 2: Revolving Cycle between Homelessness and Health Service Utilisation

Without substantial intervention and support to break the cycle, individuals experiencing homelessness will continue to utilise acute health services at an exorbitant cost burden to the health system.[3] Conversely, ED presentations and hospital admissions represent an opportunity to engage and support people experiencing homelessness, and link them with appropriate support that address the core, underlying issues and break the revolving cycle between homelessness and ED.[3,8]

The *WA Sustainable Health Review*,[14] which released its interim report in February 2018, emphasised the imperative to reduce health disparities among vulnerable population groups, as well the need to divert people from ED to community based primary health care providers. This is in recognition of rapid,

unsustainable increases in health system costs, without corresponding improvements in health outcomes.[14] A large portion of this cost burden comes from non-elective admissions via EDs, which saw a 49% increase in presentations between 2005 and 2015.[14] Frequent ED presenters represent a substantial portion of the acute care system costs.[14] Therefore, in addition to improving outcomes for patients, investing in methods that divert these individuals to primary care and social support services has the potential for enormous health system cost reduction.[14]

> A sustainable health system is one that keeps people out of hospitals and supports them to maintain good physical and mental health in their community.[14, p.23]

1.3. Purpose of this Report

This evaluation report for the RPH Homeless Team aims to:

1. Document the demographic profile, morbidity patterns and health needs of individuals experiencing homelessness who have received support from the RPH Homeless Team in its first two and half years of operation;
2. Describe the Homeless Team model and their key activities, including settings for these activities within different areas of RPH, the main health and psychosocial issues identified and how the Homeless Team works to address these issues;
3. Assess patterns and changes in hospital service utilisation (e.g. ED presentations, inpatient admissions, length of stay) for RPH Homeless Team patients with at least 12 months of follow-up post first contact, and;
4. Describe the contributions of the RPH Homeless Team in building the evidence-base for effective homeless health interventions and health sector capacity to meet the needs of patients experiencing homelessness.

Photo 2: Homeless Team Completing Paperwork

1.4.Methodology

1.4.1. Overall Research Design

This evaluation report forms part of a broader University of Western Australia (UWA) program of research pertaining to the RPH Homeless Team and HHC, and the health, economic, social and wellbeing benefits of the services they provide. This second evaluation report for the RPH Homeless Team draws on data from the larger mixed-methods study and utilises a variety of qualitative and quantitative data sources, including Perth Metropolitan Hospital database (WebPAS) for the East Metropolitan Health Service (EMHS) administrative hospital data, the RPH Homeless Team database and observational data from RPH and HHC staff. Qualitative data has been included from in-depth interviews and focus groups with RPH Homeless Team Staff.

1.4.2. Population Cohort

The population cohort for this report consists of all 1,014 patients seen by the RPH Homeless Team since commencement in June 2016 until December 2018. Health service utilisation outcomes were examined for a subset of RPH Homeless Team patients (n=824) for whom at least six-months follow-up data was available post their first contact with the Homeless Team.

The approval to conduct the research project was granted by the RPH Human Research Ethics Committee (HREC) on 26 May 2017 (Reference No. RGS0000000075), with reciprocal approval granted by the UWA HREC on 10 October 2017 (Reference RA/4/20/4045).

1.4.3. Data Collection and Analysis

Administrative Hospital Data

Administrative hospital data included ED presentations, hospital admissions and outpatient service utilisation for all RPH Homeless Team patients for the period 1 January 2013 to 30 December 2018 was requested from the Data and Digital Innovation (DDI) team at EMHS. Data matching was facilitated through use of a unique study ID for each individual, to enable the administrative data to be provided without names or other identifying information.

Data were obtained for four hospitals – RPH (which sees the greatest proportion of homeless patients in Perth) and three other metropolitan hospitals within the EMHS Catchment (Kalamunda, Bentley and Armadale/Kelmscott). Patients with at least six months follow-up from first contact with the RPH Homeless Team were identified and analyses was restricted to this group, in order to examine changes in hospital service utilisation. Hospital admission and ED presentation data were analysed using Stata v15.0 for the periods pre- and post-RPH Homeless Team contact, to produce counts for presentations, admissions and to calculate the number of hospital days admitted, both at a group and individual level. Where periods pre and post-RPH Homeless Team contact were compared, t-tests were used to test for any statistically significant differences between the periods at a confidence level of 95%. Estimated costs for hospital presentations and admissions have been calculated using the Independent Hospital Pricing Authority (IHPA) Round 20 Cost Report16 which provides the WA average cost for an ED presentation and inpatient days.

Case Studies
Case studies have been compiled by triangulating several data sources: hospital service utilisation data extracted by the RPH Homeless Team from the Perth metropolitan hospital patient database (TOPAS); Vulnerability Index- Service Prioritisation Decision Assistance Tool (VI-SPDAT) data and clinical staff observations.

1.5.Structure of this Report

Following on from this chapter, **Chapter 2** provides an overview of the RPH Homeless Team structure, staff roles and service delivery. **Chapter 3** explores the demographic profile of patients, and is followed by **Chapter 4** which provides a health profile of RPH Homeless Team patients. **Chapter 5** discusses the health utilisation of the patient cohort, including cost savings, and **Chapter 6** presents the new and targeted initiatives established by the RPH Homeless Team. **Chapter 7** explores collaborations formed by the RPH Homeless Team and their contribution to capacity building in healthcare for homeless patients. Finally, in **Chapter 8** we draw brief conclusions from the findings presented in this second evaluation report and discuss some of the challenges, gaps and future opportunities for the RPH Homeless Team.

Photo 3: Homeless Team GP

2. Royal Perth Hospital Homeless Team

The RPH Homeless Team commenced in June 2016 and is based on the Pathway model that has been implemented in 11 hospitals in the UK, whereby specialist homelessness GPs work in tertiary hospital settings that see a high number of people experiencing homelessness.[15] The GPs work in a team with homelessness nurses and caseworkers to link patients with community services to address underlying social determinants contributing to poor health, with the overall aim of engaging patients with primary care.[15,16]

The RPH Homeless Team is the first of its kind in Australia, and indeed the Southern Hemishere.[16] Since its inception two and half years ago, it has become recognised as model of evidence-based practice in Australia, with several hospitals in other states visiting the RPH Homeless Team in the last seven months to gain insights into their operation and seek advice on developing an equivalent service in their community (see also Chapter 7).

This chapter describes the Homeless Team model, staffing and roles and funding.

The RPH Homeless Team involves an integrated partnership between RPH and HHC which is a specialist Homelessness General Practice that provides primary care to people experiencing homelessness across a range of settings in Perth.[17] The GPs and nurses from HHC form a core part of the RPH Homeless Team and have a comprehensive understanding of the impact of homelessness on health and the importance of addressing the underlying social determinants.[17] Through the Homeless Team, patients can have community follow up through HHC GPs and nurses, and be connected to community based supports and accommodation providers, enabling social issues to be addressed alongside health issues.

The success of the RPH team is built on the fact that it provides immediate access to a primary care GP and community access to health and homelessness support. The integrated RPH Homeless Team model ensures that care is coordinated, further enhancing the opportunity for follow up in the community on discharge (something significantly lacking in other health services). It also means that a number of complex social issues can be assessed and addressed during the presentation/admission which may not be addressed or followed up on otherwise (or at least not as comprehensively). Having a specialist community caseworker (as opposed to a generalist hospital social worker) providing this input is invaluable.

- Stephanie MacFarlane, South Eastern Sydney Local Health District

The team composition and summary of roles is shown in Figure 3.

Clinical Lead

Key Roles:

- Organisation and leadership of RPH Homeless Team
- Facilitate work of the HHC GPs & nurses and caseworker within RPH
- Liaise with RPH staff regarding Homeless Team patients
- Maintain Homeless Team database
- Supervise the Homeless Team Administrative Assistant

Community Caseworker

Key Roles:

- Promote community links and referral pathways for homeless patients
- Integration of hospital care with community services
- Advocate for and support patients into support services for individual case management
- Assist and refer individuals to suitable accommodation

Administrative Assistant

Key Roles:

- Find and collate lists of homeless patients for Homeless Team rounds
- Coordinate Homeless Team round information between different days and care providers
- Collect data on for the Homeless Team database
- Receive phone referrals and enquiries

GPs

Key Roles:

- Review of RPH Homeless Team patients requiring GP input
- Provide advice to treating team regarding in-hospital management of patients and discharge planning
- Coordinate care between hospital and community
- Rotate with HHC mobile clinics to provide ongoing/long term primary healthcare

Nurses

Key Roles:

- Initial engagement with RPH Homeless Team patients
- Ascertain if patient has GP, if not inform patients about HHC GP clinics
- Provide advice to treating team regarding nursing care during in-patient stay and assist with discharge planning
- Rotate with Street Health, and other HHC clinics to provide ongoing/long-term

Home2Health Research Team

Key Roles:

- Evaluation of Homeless Team and HHC health and economic impact
- Manage linked hospital database
- Development of reports infographics and papers
- Facilitate contributions to international evidence-based best practice
- Use evaluation data to identify service delivery gaps

Figure 3: RPH Homeless Team Staff Roles

2.1.1. Royal Perth Hospital Homeless Team Staffing and Funding

Since commencement of the team in June 2016, the team and operating hours have been modified in response to increased demand and changes in funding arrangement (Figure 4). Hours for the HHC nurses have increased from 0.5 full time equivalent (FTE) to 0.75FTE as of June 2018. The hours for the community caseworker increased from 0.2FTE to 0.6FTE in December 2017, increased further to 0.75FTE with funding from the WA Health Winter Demand Reduction Strategy and as of November 2018 the Homeless Team Caseworker has been funded for 1.0FTE for seven months by the EMHS Population Health Unit. This funding runs out however 30 June 2019, and as discussed in Chapter 6, ***sustainable funding is required to continue this position that contributes significantly to the work and impact of the Homeless Team.***

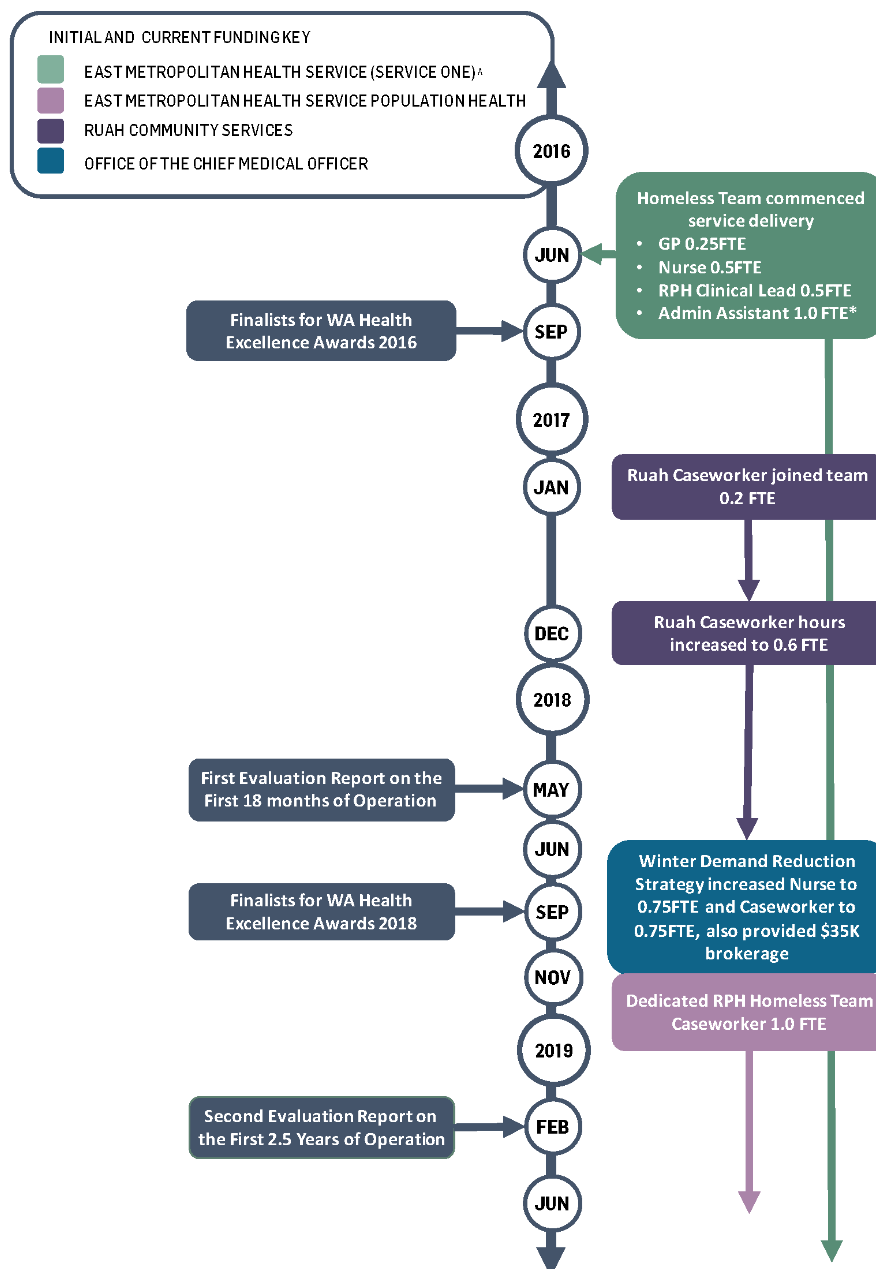


Figure 4: Timeline of RPH Homeless Team Structure and Funding
^No ongoing, long term funding secured
*Only partially funded for the first 6 months

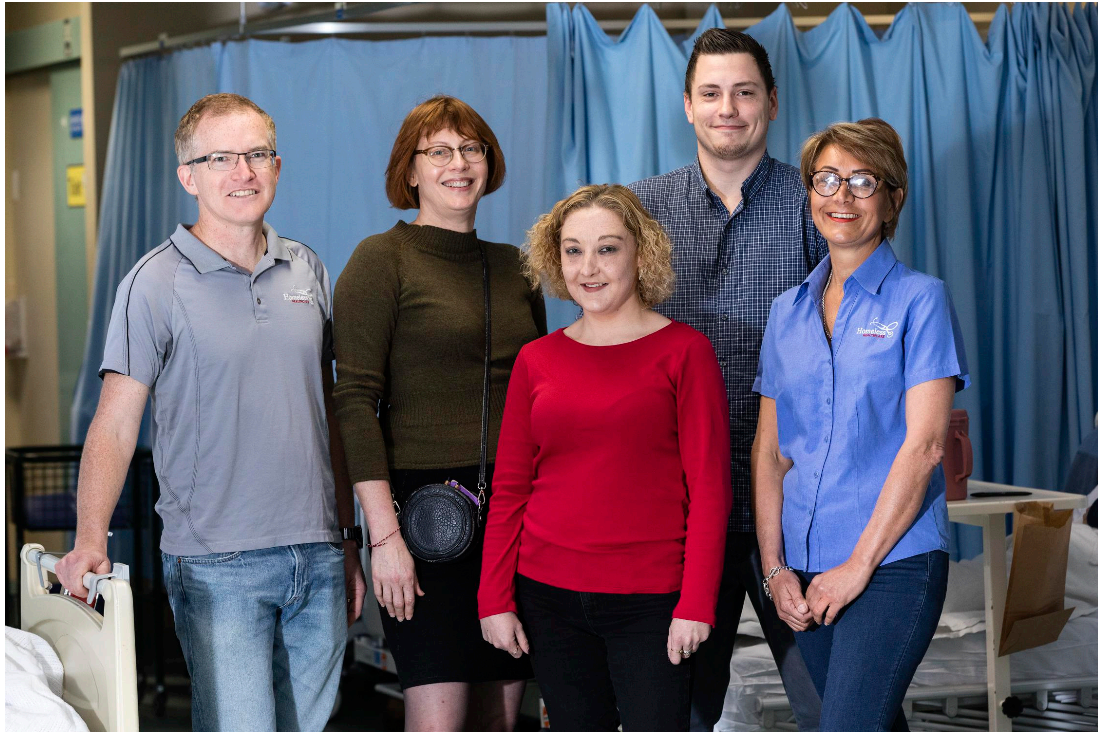


Photo 4: The Homeless Team: Dr Andrew Davies (GP), Dr Amanda Stafford (Emergency Medicine Specialist), Misty Towers (Admin Assistant), Jace Tysoe (Caseworker) and Martene Seminara (Nurse)

2.2.The Homeless Team's Function

A key function of the Homeless Team is reviewing and supporting all homeless patients identified at RPH and then linking them to long-term GP care and other appropriate services for ongoing support in the community with the aim of facilitating long-term improvements in health and wellbeing (Figure 5).

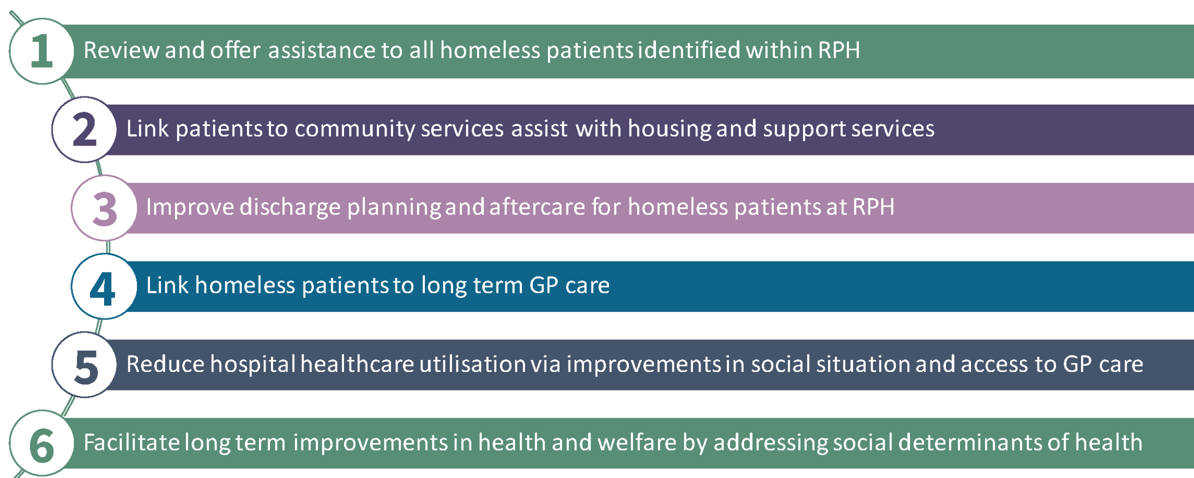


Figure 5: Aims of the RPH Homeless Team

Visiting RPH, I had the privilege of witnessing a Homeless Healthcare team ward round (consisting of the RPH Administration worker, a GP, a (Homeless Healthcare) Nurse and a Caseworker) in the ED, approaching mainly men with acute- alcohol related problems. There was no judgement. There was no empathy burnout. The emphasis was on practical considerations – such as food, suggestions for housing, follow-up with Homeless Team. **- Dr Adrian Gillin, Royal Prince Alfred Hospital, NSW**

The RPH Homeless Team utilises a number of strategies to identify all homeless patients presenting to ED or admitted as inpatients, including:

- Each night the DDI produces a list flagging all patients who have been recorded as "NFA" on their midnight hospital bed census;
- Each weekday morning, the Homeless Team Administrative Assistant conducts a manual search of common locations e.g. ED for patients known to the team or presenting after the midnight census;
- The Homeless Team, HHC GPs, nurses and RPH clinical lead, conduct ward rounds on weekdays, visiting patients who are homeless and linking them with community-based services for improved discharge planning.

The fact that a GP can come into the ED and educate and transform the actions of the busy ED Team was amazing. As a specialist physician with over 30 years working experience working in large urban tertiary centre, I have never come across primary-care in-reach into a hospital. It's a great advertisement for the need for closer integration of the Australian healthcare system. ***- Dr Adrian Gillin, Royal Prince Alfred Hospital, NSW***

Using multiple search tactics increases the overall likelihood that the Homeless Team identifies all homeless patients that present to RPH.

Photo 5: Homeless Team Following Up on Patients

The integration of HHC staff into the Homeless Team allows for continuity of care for patients when they are discharged, and it is this integration with primary care that has been particularly commended by public health and hospital colleagues in other states (Figure 6).

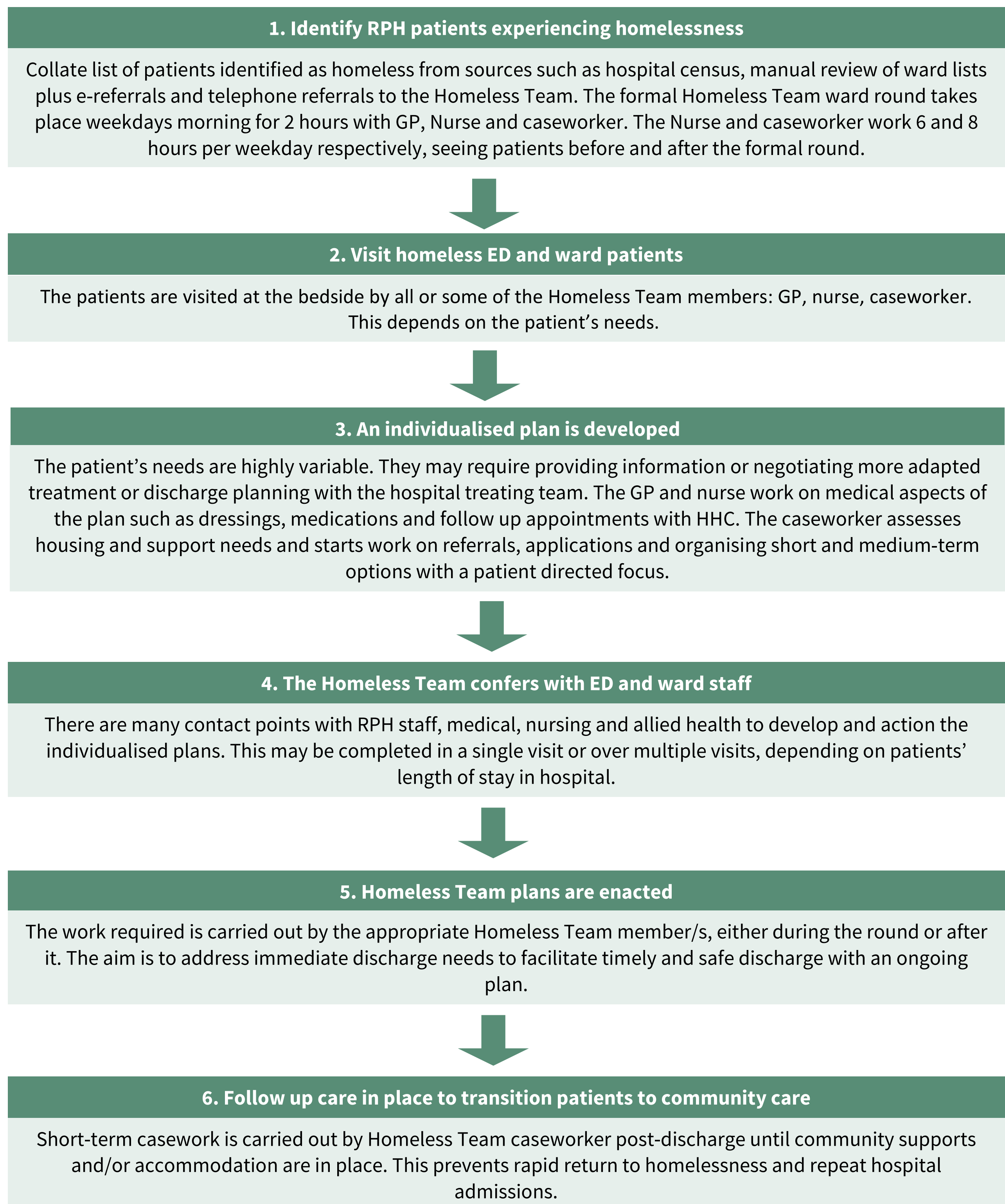


Figure 6: RPH Homeless Team Process

The role that the Homeless Team plays in linking homeless patients with services and their role in discharge planning been recognised in other states as an effective alternative that streamlines care:

> *What we know from our NSW experience is that often our patients experiencing homelessness present to the ED or are admitted- however upon discharge they are given a discharge summary and instructions to follow up at their GP (where often there is none) or are referred to one of our homelessness health specialised clinics and services- however mostly there is little or no integration among these care providers so follow up runs the risk of being patchy and is often very separate to the care provided in the hospital. The RPH team effectively cuts out the middle man so that the care and support can be streamlined and holistic* **- Stephanie MacFarlane, South Eastern Sydney Local Health District**

> *Having both GPs and nursing staff from HHC is a key part of solving the revolving door problem. Actually meeting with the GP and nurse in hospital, that can then provide a follow up in the community, is a very powerful experience for these patients. It shows that there is a health care team that cares about them outside of the hospital, that they can see rather than just going back to the ED again. By providing clinics in a range of settings, from ad hoc appointments at drop in centres, to appointments in accommodation centres for homeless people, all the way through to normal booked GP appointments, the opportunity to attend follow up is maximised. Also, follow up with Hospital specialist clinics has been greatly improved having caseworkers actually transporting patients to their appointments.* – **Dr Stefan Kuiper, Specialist Emergency Physician, Cairns Hospital**

> *The keys to the success in Perth, as I see it, is the dual pronged approach of the patient having access to both an external primary healthcare service and a homeless caseworker to ensure they can access ongoing support once discharged for either their health or housing issues. The other strength is the communication and coordination that a small team, focused solely on homeless patients, can bring to the large scale hospital ensuring no one gets lost in the system and that they receive an individualised, tailored response to both their health and housing needs.* **– Mark Jentz, Program Manager, Street to Home, Mission Australia**

Photo 6: Patient Seen by Homeless Team in ED

2.3. The Homeless Team's Service Delivery

In the first two and a half years of operation, the RPH Homeless Team provided 2,486 separate consultations during 1,812 episodes of care to 1,014 patients. The number of ED presentations/ admissions which resulted in Homeless Team review ranged from 1-19 per-person (Figure 7). During each episode of care, patients could be seen by the Homeless Team multiple times, particularly during lengthy inpatient admissions.

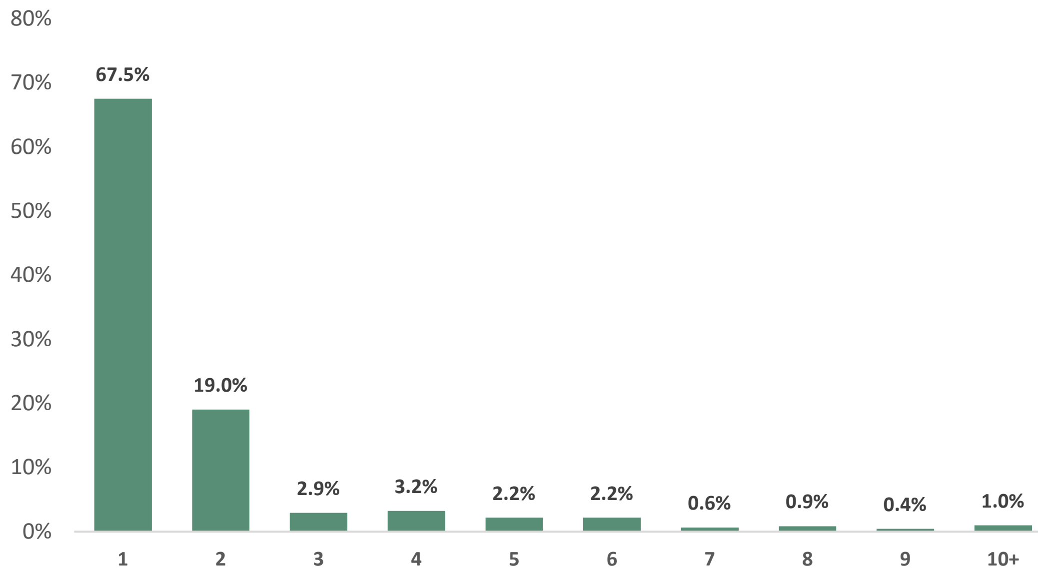


Figure 7: Range of Episodes of Care Provided by the RPH Homeless Team

Whilst patients are seen by the RPH Homeless Team across departments, the most common locations for consultations were the ED Observation Ward and the Medical Inpatient Ward (31% and 25% respectively) (Figure 8).

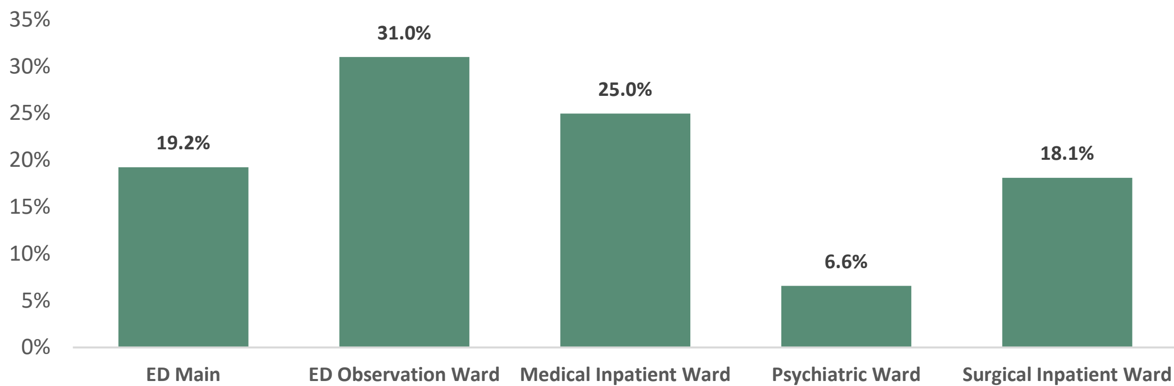


Figure 8: Location of Homeless Team Consultations

2.4.Patterns of Contact

The majority of patients seen by the RPH Homeless Team have substantial vulnerabilities and are often highly disengaged from homelessness support services. On the first occasion they were seen by the Homeless Team, more than half of patients were not known to HHC (Figure 9), with the vast majority of these disengaged patients not receiving any primary healthcare prior to their contact with the Homeless Team. From July-December 2018, the proportion of patients not known to HHC increased, coinciding with an observed increase in the number of people entering homelessness indicating that the RPH Homeless Team continues to see previously disengaged patients. A status of 'Little Known' to HHC on first contact with the Homeless Team indicates that a patient may have had previously brief contact with HHC but is currently unengaged and not receiving primary healthcare. For patients who are not well known to HHC, contact with the Homeless Team at RPH represents one of few opportunities to engage this highly vulnerable group.

During a morning ward round, if a patient is not recognised as known to the HHC GP or nurse, the HHC records are checked to determine whether the patient has previously attended one of the mobile clinics or Street Health. If the patient is not known to HHC, the team will ask if they have a GP, and if not asked if they would be happy to see one of the HHC GPs at one of the community clinics, such as those at the Ruah and Tranby drop in-centres. **– UWA Research Team observation**

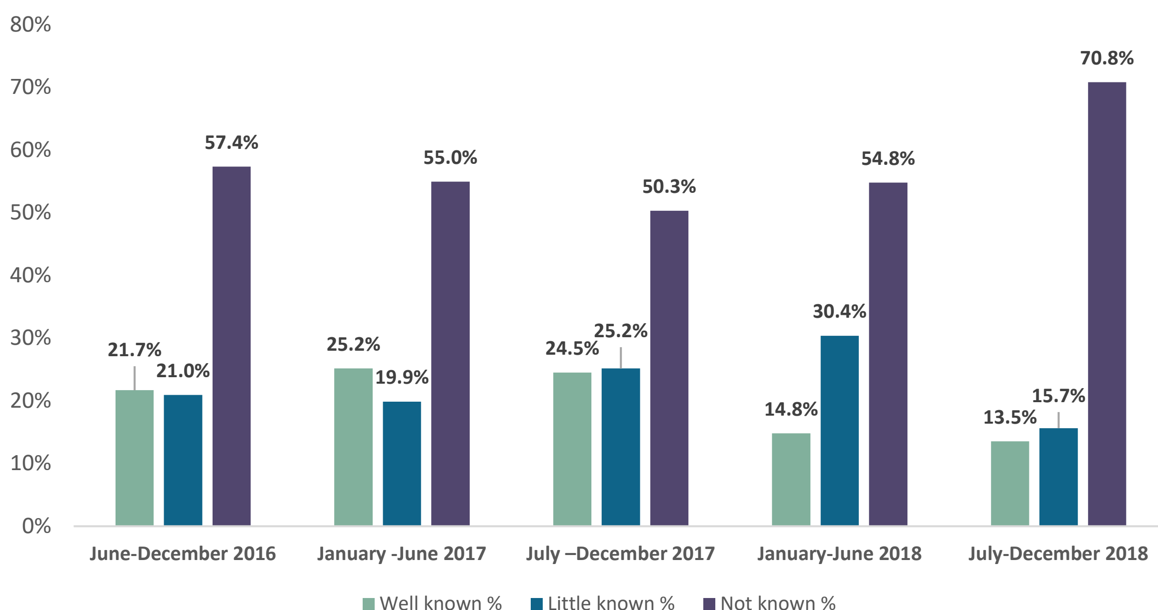


Figure 9: Patients Known to HHC at First RPH Homeless Team Contact

The highly disengaged state of the majority of patients seen by the RPH Homeless Team is depicted in Figure 10 through a graphical illustration of unique patients who attended two-way combinations of homelessness services.

Patients who attended only one location are illustrated by the chords that return to the same node. As at September 2018, 28% of HHC patients were engaged only with the RPH Homeless Team and received

in-reach care from HHC. As shown in Figure 10, the majority of RPH Homeless Team patients are disengaged from other community-based services. Consistent with supporting vulnerable rough sleepers, the HHC Street Health service has the largest overlap of patients with the RPH Homeless Team.

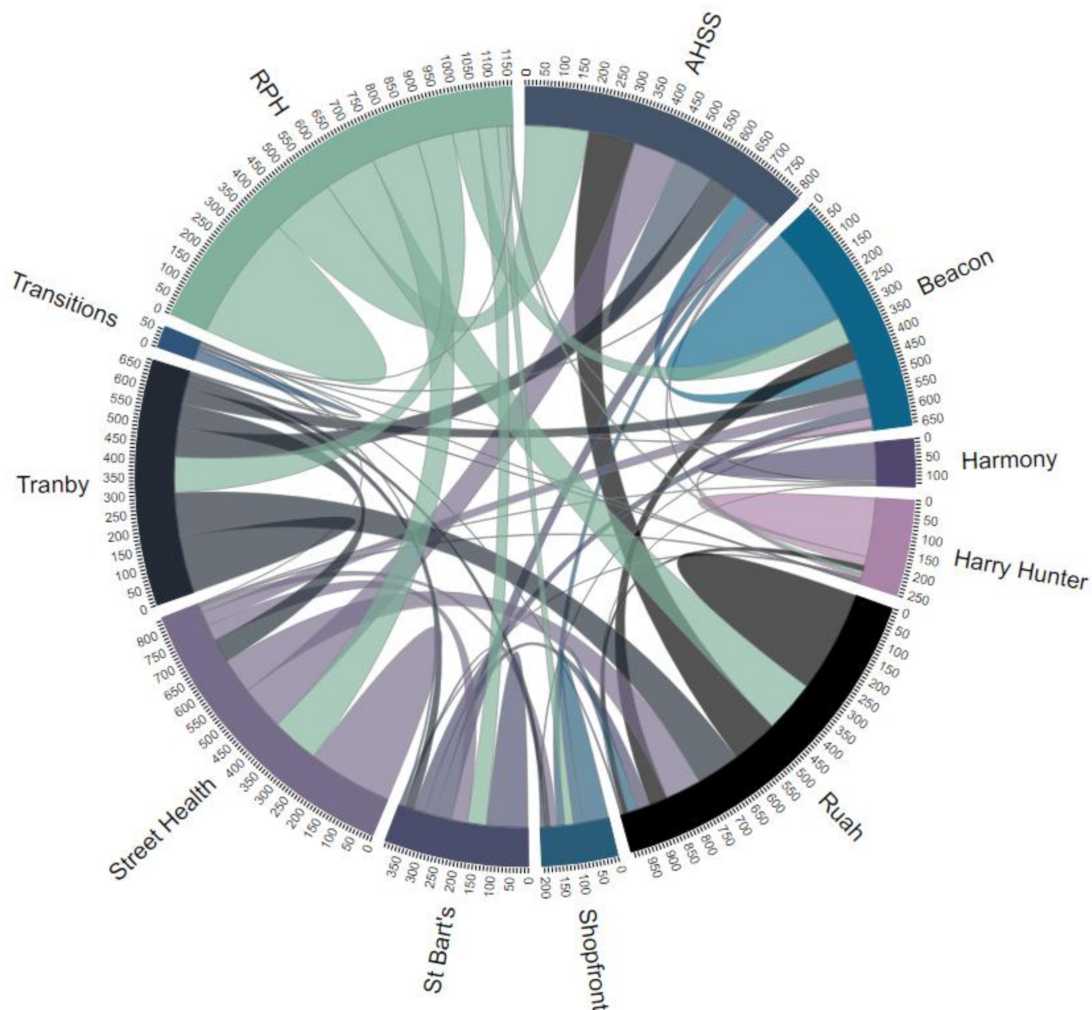


Figure 10: Chord Illustration of Common Two-way Combinations of Location Attendance

2.5. Role of the RPH Homeless Team in Shifting Culture and Improving Patient Care

Since the RPH Homeless Team began, the Homeless Team itself and staff across other areas of RPH have observed that there have been positive changes in attitude, culture and practices in relation to patients who are homeless. Prior to the Homeless Team, there was a sense of despondency about what hospitals can do when faced with the recurring attendances of homeless patients with complex health and social issues. It can be demoralising for hospital staff to see homeless patients cycling in and out of the hospital repeatedly, and not have the capacity to prevent this or address the underlying issues precipitating frequent presentations and deteriorating health. Having the team as a 'go to' within RPH has expanded the advice and options that other RPH staff can access for homeless patients, including connecting them to a GP for follow up community care and accommodation to avert discharge to the street.

As noted by the Consultation Liaison Psychiatrist at RPH:

> *The RPH Homeless Team provides a vital service in advocating for this disenfranchised and marginalised group of patient in RPH; as they invariably have some form of mental health issues. This has led to a synergistic relationship between the Homeless Team and the Consultation-Liaison Psychiatric & Emergency Department mental health services; which has resulted in positive interventions in the life of these patients. The Homeless Team has also provided assistance in discharge planning for these patients* **- Dr Nigel Armstrong, Consultation Liaison Psychiatrist RPH**

This notion of having a 'go to' team within RPH was also noted by a social worker who reflected how the caseworker is able to access recourses they wouldn't be able to:

> *Jace (the Homeless Team caseworker) has resources and contacts that we don't have. We also know that HHC can follow patients up in the community and that patients can get GP care outside of the hospital. Without the Homeless Team a patient like the one we have on the ward today would be discharged and go back to the streets and his diabetes would just keep getting worse*. **-Social Worker, RPH**

This shift in culture and approach to healthcare for people experiencing homelessness has been recognised by patients, one patient noting the radically different care they received between two ED presentations:

> *I had a lot of admissions to RPH when I was homeless and when I wasn't. A few years ago (roughly about 2015) when I went to RPH for medical assistance I found that I was turned away from emergency, this was because I had no fixed address. I understood that a lot of homeless people went to RPH just for minor medical issues and wanted a night of the streets, but I had some serious medical issues that needed a hospital stay. In 2016/17 I had to go to RPH for some medical issues and there was a new approach to the homeless. It was a big relief to have the Homeless Healthcare team at the hospital, I felt reassured that I would have the medical care that I needed, they were a friendly face who knew me and my circumstances. It is really hard when you have to repeat your story and explain why you are homeless to the nurses and doctors at RPH, so having the homeless Healthcare Team at RPH made a big difference to me, when I needed medical help.* **– RPH Peer Advocate**

Traditionally, attendance of homeless patients at outpatient clinics is low, and referrals may not be taken up, but as highlighted by the 2016 Clinical Senate on Homelessness, the recording of patients as 'no fixed address' exacerbates this problem, as appointment notification dates and referrals do not reach the patient. One of the recommendations from the Clinical Senate required WA Health to put measures in place to address this issue. As reflected by the Homeless Team Clinical Lead, this has led to positive changes in practice at RPH

> *…since the clinical senate, our Outpatients clinic is looking again at NFA patients and I now get emails from Outpatients asking about how best to contact patients who are recorded as NFA. I can often add a caseworker's details which makes attendance much more likely.* **- Dr Amanda Stafford, RPH Homeless Team**

Overtime, the RPH Homeless Team has also contributed to capacity building among other RPH departments, around how they respond to patients experiencing homelessness. Being able to call on the experience of the RPH Homeless Team and learning from their model of care has resulted in improved outcomes for patients experiencing homelessness.

Photo 7: Homeless Team GP with Patient

3. Demographic Profile and Vulnerability

3.1. Demographics

For the 1,014 patients seen by the RPH Homeless Team, the average age of patients seen by the RPH Homeless Team in the first two and a half years of operation was 44 years (see Table 1). Overall 29% of Homeless Team patients identified as Aboriginal and/or Torres Strait Islander, a substantial overrepresentation compared to the 2.8% of people who identify as Aboriginal and/or Torres Strait Islander in the general Australian population.[18] The majority of patients were born in Australia, followed by the UK and New Zealand.

Table 1: RPH Homeless Team Patient Demographics

RPH Homeless Team Patients	N (%)
Gender	
Male	686 (67.6)
Female	323 (31.9)
Trans	5 (0.5)
Age at First RPH Homeless Team Contact	
Mean age	44
Range	17-80
Aboriginal and/or Torres Strait Islander	
Non-Aboriginal and/or Torres Strait Islander	723 (71.3)
Aboriginal and/or Torres Strait Islander	291 (28.7)
Country of Birth	
Australia	876 (86.4)
North America	2 (0.2)
South-East Asia	10 (1.0)
Europe	68 (6.7)
Eastern Mediterranean	5 (0.5)
Africa	15 (1.5)
Western Pacific (excluding Australia)	38 (3.7)

There is a broad spread in the age of patients seen by the RPH Homeless Team. The majority of patients are aged between 30 and 50 years (see Figure 11), with a small number of patients aged under 20 (2%) and over 60 years (6%).

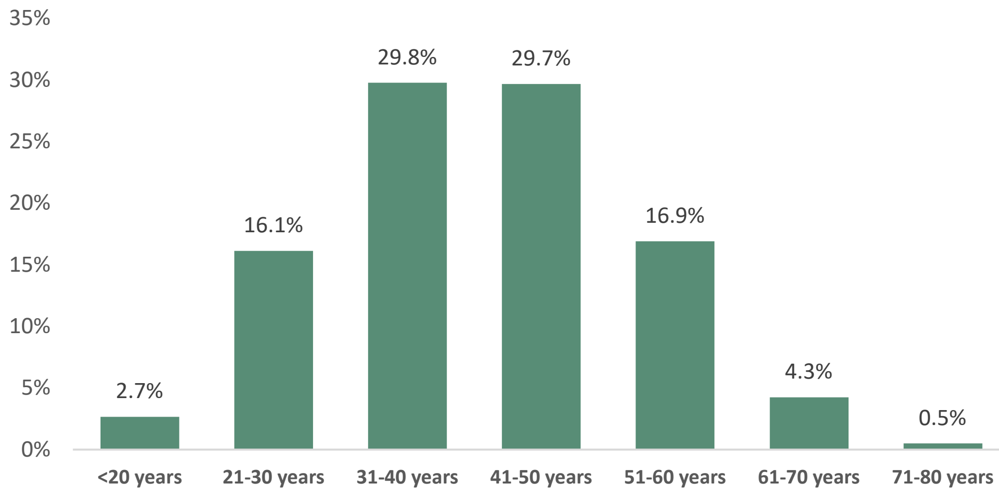


Figure 11: Age Range of RPH Homeless Team Patients

3.2.Homeless History and Housing Needs

Patients seen by the RPH Homeless Team are highly marginalised, with the majority experiencing primary homelessness. On their first contact with the Homeless Team, 73% of patients were rough sleeping whilst a further 5% were staying with family or friends, often in temporary couch surfing arrangements (Figure 12). A small proportion of patients seen by the Homeless Team (9%) were in long-term housing, but were previously homeless and remained vulnerable or at risk of homelessness.

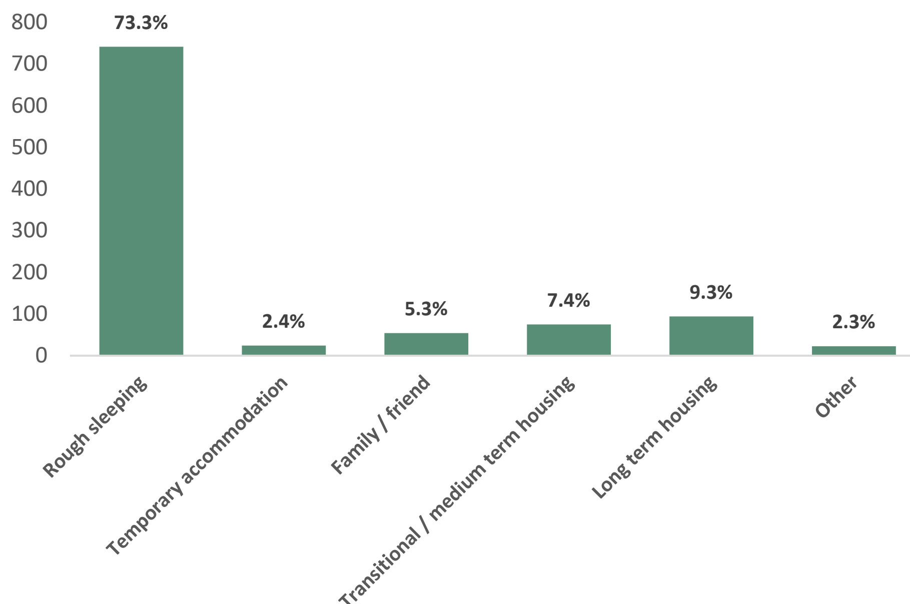


Figure 12: Housing Situation on First Contact with the RPH Homeless Team

Early collaborative discharge planning and enhanced care coordination for patients experiencing homelessness has become standard practice at RPH. Whilst 73% of homeless patients were rough sleeping on first contact with the Homeless Team, only 36% of episodes of care resulted in discharge to rough sleeping (Figure 13). Despite this reduction, discharge to rough sleeping remains a significant challenge due to lack of accommodation options. The difficulty of obtaining rapid and suitable housing options remains a substantial barrier to improving the health of patients who are homeless, with rough

sleeping associated with deterioration in health status and frequent re-admissions. Despite these challenges, the RPH Homeless Team discharges patients to stable and safe accommodation wherever possible, with transitional accommodation and medium-term housing the discharge location for 22% of patient episodes. Family or friends (11%) or temporary accommodation, including refuges, (8%) are the next most common discharge locations.

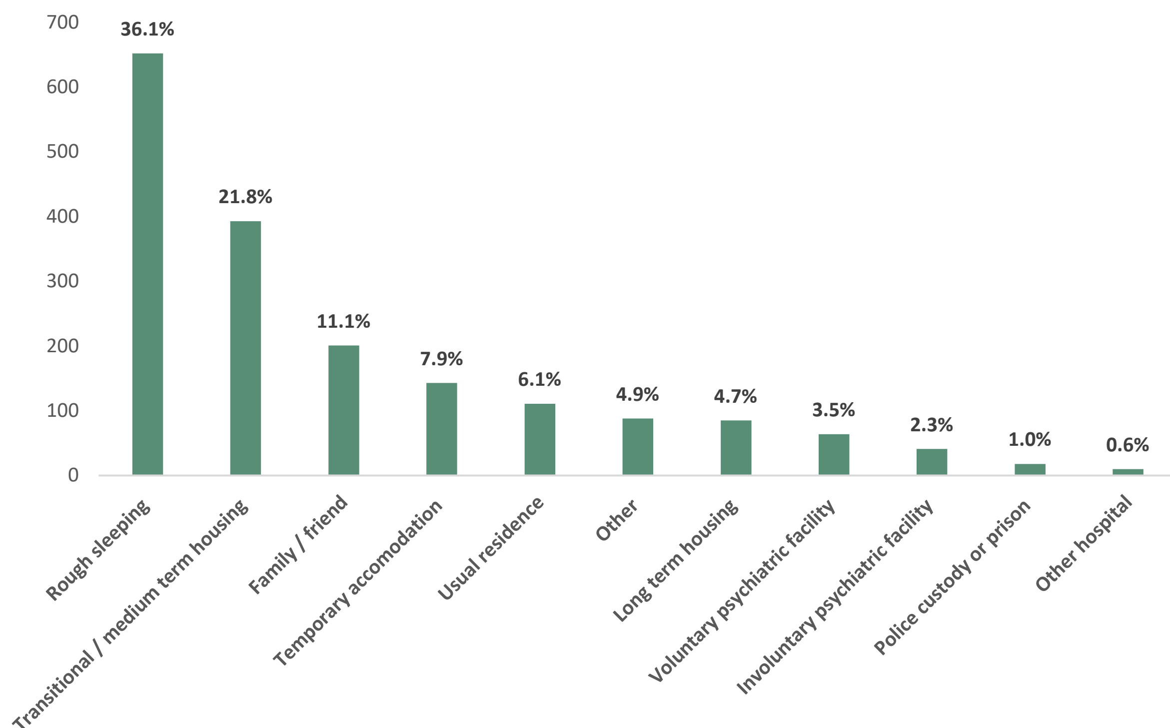


Figure 13: Discharge Location for Episodes of Care Provided by the Homeless Team

3.3.Patient Vulnerability

As many of the patients seen by the RPH Homeless Team have been homeless or cycling in and out of homelessness for many years, about one-third (34%) have at some point since 2014 completed a questionnaire that is widely used to assess the vulnerability of rough sleepers in order to triage and prioritise housing. This questionnaire is known as the VI-SPDAT and it is an instrument first developed in the United States[19] designed to measure both individuals' risk of mortality and the type and level of support required to exit homelessness into safe and stable accommodation. In Perth, 1,302 rough sleepers have completed a VI-SPDAT since 2014, many in the 2014 and 2016 Registry Weeks, and since then, via the range of services in Perth (including HHC).

The VI-SPDAT is a self-report triage tool that assesses risk and needs across four domains:

- ***history of housing and homelessness*** - current housing circumstances, episodes of homelessness and total length of time spent homeless;
- ***risks*** - encompassing health status and service use, risk of incarceration and exploitation;
- ***socialisation and daily functioning*** - capacity to self-manage finances, self-care, engage in meaningful activities and relationships, and;

- ***wellness*** - physical health conditions, disabilities, mental health, substance use and ability to manage medications.

A VI-SPDAT score of ≥10 is indicative of high levels of vulnerability. Perth's first Housing First program, 50 Lives 50 Homes,[20,21] uses this score to assess for eligibility into the program, with some exceptions made in certain circumstances. The 50 Lives 50 Homes program is founded on a collective impact model, with 28 partner organisations involved from a range of sectors (i.e. homelessness services, housing agencies, health providers and community services). This collaborative approach stems from the understanding that homelessness is a deeply set multi-factorial and multi-faceted issue and uses the expertise across sectors to rapidly house and support some of Perth's most vulnerable rough sleepers. The Homeless Team plays a key role in the program through participation in working group meetings and referring vulnerable rough sleepers that are presenting in RPH into the program.

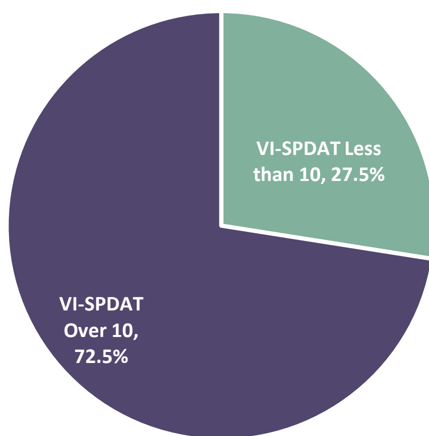


Figure 14: RPH Homeless Team Patients VI-SPDAT Scores

Of the 342 RPH Homeless Team patients who had completed the VI-SPDAT, 73% were classified as highly vulnerable and account for nearly a third of the 824 people in Perth classified as highly vulnerable through the VI-SPDAT (Figure 14). Patients who have not completed the VI-SPDAT on first contact with the RPH Homeless Team are supported to do so and where they meet the eligibility criteria, Homeless Team staff collaborate to assist them to engage with the 50 Lives 50 Homes program.

The following vignette (Box 1) illustrates how complex health conditions often cluster with adverse psychosocial circumstances to compound patient vulnerability.

Box 1: Vignette on Patients' Complex Health and Psychosocial Circumstances

Susan is a woman in her fifties who spent one year rough sleeping in the Perth CBD due to eviction from her previous accommodation. Susan has a complex history including mental health issues, sexual assault and trauma, domestic violence, loss and substance use marked with chronic unstable housing and intermittent homelessness for several years. Susan was admitted to RPH in 2018 with severe spinal issues.

Throughout hospitalisation and outpatient treatment, the RPH Homeless Team engaged with Susan to conduct a referral to older women's' transitional accommodation for supported accommodation, provide assistance for the intake process and aid in emergency relief resources to assist in daily living needs. Post-hospitalisation, Susan was linked with a Community Service Intensive Housing program for three-month case management support in the community.

Since housed in supported accommodation Susan has been able to maintain regular appointments with the HHC clinic to receive assistance in the management of her health issues and is engaging meaningfully with community groups. Susan continues to receive ongoing assistance with daily living tasks such as shopping and cleaning. Case management support in the community has allowed her to build positive physical and emotional health practices and look for appropriate longer-term housing options for her family.

Photo 8: Health Check in a Perth Park

3.3.1. Self-Report History of Housing and Homelessness

For RPH Homeless Team Patients who had completed a VI-SPDAT, the self-report number of times experienced homelessness reveals a long history of homelessness and insecure accommodation. On average Homeless Team patients had been homeless for 5.6 years, equating to 2,044 nights on the streets, when they completed the VI-SPDAT, the shortest time spent homeless was 23 days and the longest 41 years. One measure in the VI-SPDAT is the number of occasions the individual has cycled between housing and homelessness in the three years prior to completing the VI-SPDAT. The majority of RPH Homeless Team patients had been homeless and then rehoused between one and ten times in the previous three years, with 78 patients experiencing more than 11 changes between housing and homelessness (Figure 15).

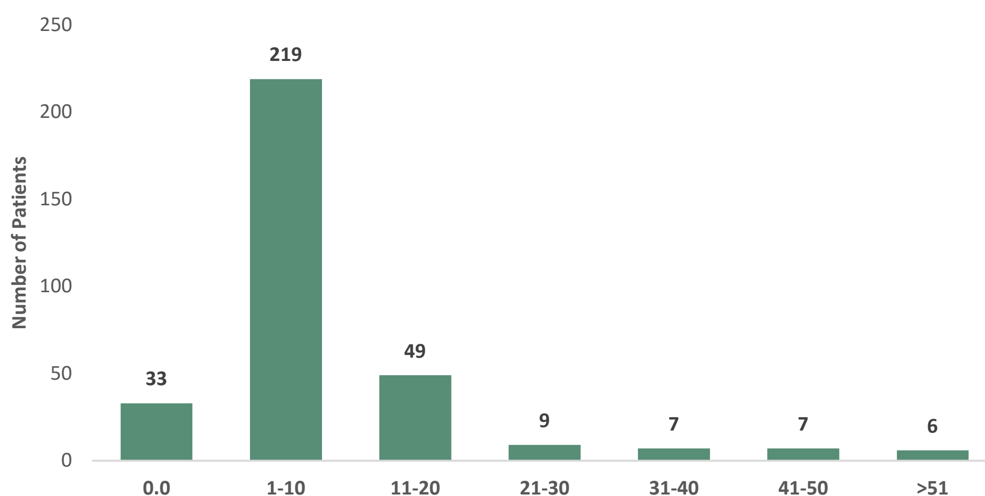


Figure 15: Self-Reported Number of Times Patients have Experienced Homelessness and Been Rehoused in the Previous 3 Years

Note: Outliers (n=2) were excluded.

3.3.2. Self-Report Veteran Status

Having served in the Australian Defence Force (ADF) was common amongst RPH Homeless Team Patients who had completed a VI-SPDAT, with 6.2% identifying that they had previously served. The RPH Homeless Team patient cohort has a substantially higher proportion of Veterans than the general population, with an estimated around 641,000 or 2.6% living Australian veterans who have ever served in the ADF, accounting for 2.6% of the general population.[22]

3.3.3. Self-Report Educational Background

The majority of RPH Homeless Team Patients reported completing year ten or having undertaken an apprenticeship or tertiary studies, however 30% had ended schooling prior to year ten (Figure 16).

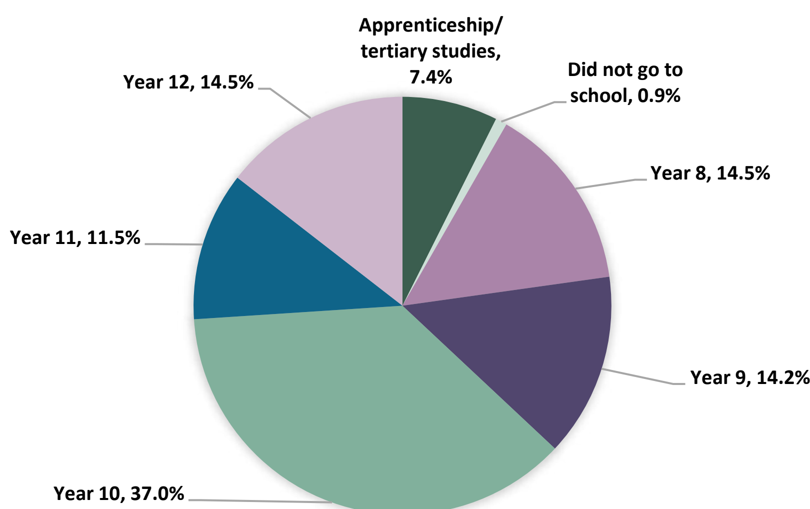


Figure 16: Self-Reported Highest Completed Schooling

3.3.4. Self-Reported Acquired Brain Injury

The VI-SPDAT asks respondents a range of questions about their health and pre-existing morbidities. The high level of vulnerability experienced by patients seen by the RPH Homeless Team was reflected in their poor health status, with a substantial number affected by acquired brain injury, dual diagnosis and tri-morbidity. Acquired Brain Injury was self-reported by 46% of the RPH Homeless Team patients who had completed a VI-SPDAT (Figure 17). For some patients their ABI contributed to their homelessness, whilst for others, ABI was a consequence of assaults and falls whilst rough sleeping. The prevalence of ABI amongst people who are homeless is substantially larger than the general population. Brain injuries can impair individual’s ability to participate in and follow treatment plans and homeless patients with an ABI are particularly at risk for lack of engagement and being lost to follow up. The role of the RPH Homeless Team in engaging clients with an ABI and linking them with community support is illustrated in Box 2.

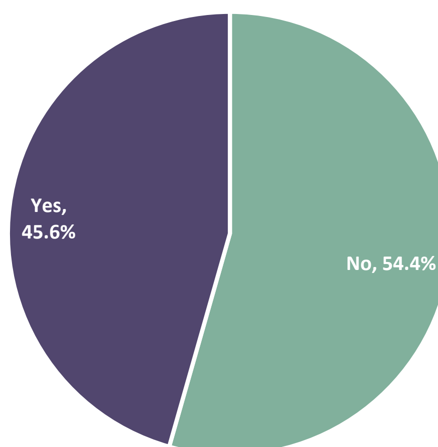


Figure 17: Acquired Brain Injury Self-Reported in the VI-SPDAT

Box 2: RPH Homeless Team Patient with an Acquired Brain Injury

Cameron is a male in his late forties who ran his own business, who became homeless following an ABI. Due to his ABI he was unable to remember to attend follow-up appointments and with limited family or social support and tenuous accommodation he became homeless. After a period of rough sleeping, Cameron was housed through the 50 Lives 50 Homes program but continued to experience difficulties related to his brain injury and was reluctant to take necessary medications and so had frequent seizures. The RPH Homeless Team supported Cameron when admitted to hospital, linking him with HHC, who, in conjunction with the After Hours Support Staff, continue to provide continuity of care and assist him to retain his tenancy.

3.3.5. Self-Report Dual Diagnosis and Tri-Morbidity

Dual diagnosis, where patients have both a mental health condition and alcohol or other drug issue, is common amongst those supported by the RPH Homeless Team, affecting 85% of the patient group (Figure 18). In addition to dual diagnosis, 70% of RPH Homeless Team patients are affected by tri-morbidity, a combination of mental health conditions, serious physical health conditions and alcohol and other drug issues.

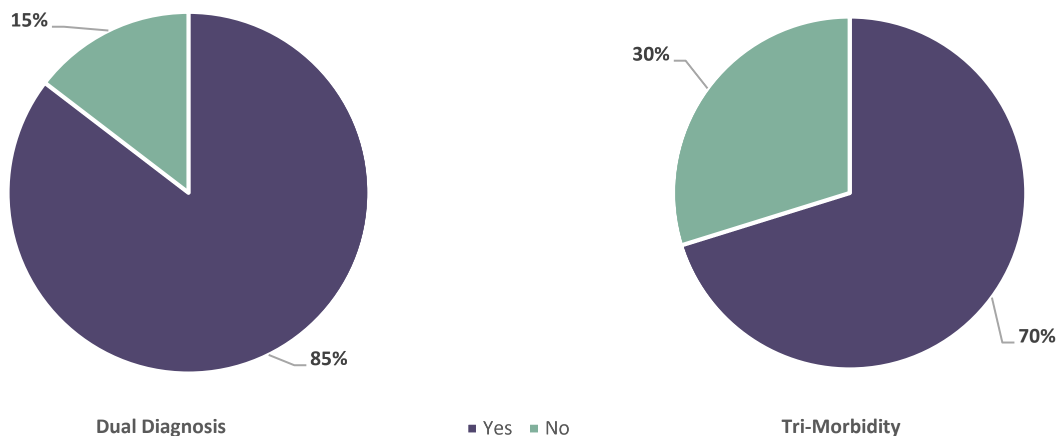


Figure 18: Proportion of Patients with Self-Reported Dual Diagnosis and Tri-Morbidity

The abundance of patients self-reporting dual diagnosis and tri-morbidity suggests an overall very poor level of general health and is a useful marker of complex health amongst people who are homeless.

3.3.6. Self-Reported Justice System Interactions and Social Issues

For individuals experiencing homelessness, it is not uncommon to have histories including justice contacts and to experience other social issues, and this is also seen in the RPH Homeless Team patients (Figure 19). There is a complex interaction between the experience of homelessness and the likelihood of increased frequency of contact with all elements of the justice system. People experiencing homelessness also have an increased risk of being a victim of crime and are more likely to report problems with fines, legal issues, and previous imprisonment. On average, RPH Homeless Team patients reported that they had 8.5 interactions with justice system in the three years prior to completing the VI-SPDAT.

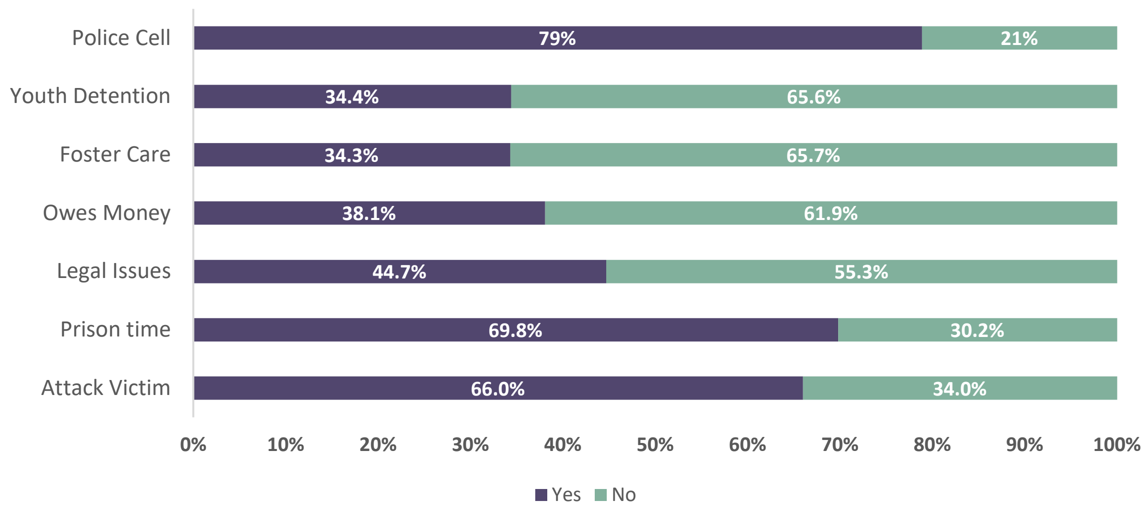


Figure 19: Self-Reported Social and Justice Issues

Additionally, a third of RPH Homeless Team patients reported childhood histories of spending time in youth detention and foster care (both 34%).

Interactions with police are a common experience for people experiencing homelessness. These interactions are particularly high for people with mental health and substance use issues. In the six-months prior to completing the VI-SPDAT, the majority of RPH Homeless Team patients had between one and ten interactions with police (Figure 20).

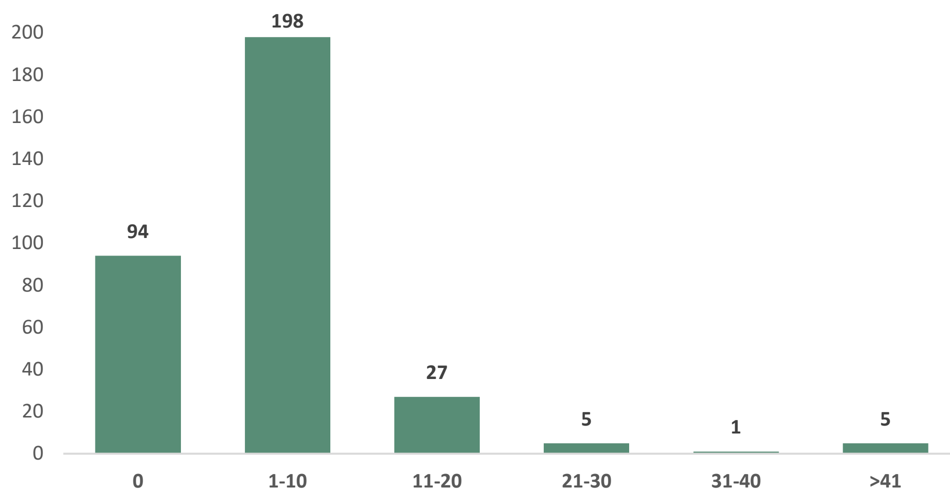


Figure 20: Self-Reported Number of Interactions with the Police in the Previous 6 Months
Note: Outliers (n=9) were excluded.

4. Health Profile of RPH Homeless Team Patients

People who are homeless experience markedly worse health outcomes when compared to their housed counterparts, with high rates of co-existing physical, mental and substance abuse related health issues.[6] The social determinants of health associated with homelessness, such as trauma and social isolation, further compound the severity of the patients' health profiles, and present unique challenges for health promotion and treatment.[9] The following case study (Box 3) illustrates the complexity of RPH Homeless Team patients and the interplay of homelessness, psychosocial issues and poor health.

Box 3: The Impact of Homelessness and Complex Psychosocial Issues on Health Issues

Background

Mitch is a male in his mid-forties, whose family resides in a country town but he has been rough sleeping in Perth for over six years. He has been injecting meth for over 10 years and had poorly controlled type 2 diabetes, which resulted in nerve damage in his fingers and toes by the time he was 40 years old. He became severely ill in 2016 with a lung abscess and required a month of hospitalisation after which he returned to the country to live with his family for two years. He returned to rough sleeping in Perth in May 2018. By September 2018, he had developed a wound on his left foot which he didn't notice initially because the diabetic nerve damage dulled the pain. The wound developed a serious infection causing Mitch to become unwell and in September/October he had the first of 11 admissions to RPH for this problem. Rough sleeping had meant he was unable to keep off the foot or keep it clean, unable to store his diabetic medications and antibiotics, and unable to attend hospital dressing clinics and appointments as he had no means of contact. His ongoing meth use made finding accommodation challenging because it consumed his money and excluded him from most accommodation.

Role of RPH Homeless Team

Initially Mitch had little interest in engaging with the Homeless Team, which visited him many times during the 11 admissions and 61 days of hospitalisation. The repeated admissions followed a predictable pattern of disengagement from dressings and medications, worsening diabetic control and a further flare of the foot infection, which then progressed into a more serious bone infection.

Over the many Homeless Team visits, he started to engage with the caseworker in looking for suitable supported accommodation where meals and accommodation were provided. By late 2018, he was well engaged with the Homeless Team and accepted into a Transitional accommodation facility with HHC GP clinics. The RPH Diabetic team then admitted him for definitive treatment of the foot infection via amputation of the toes with infected bones. This required a 20-day admission, two operations and prolonged IV antibiotics.

Current Situation

He was discharged back to the Transitional Accommodation but within a month made the decision to return to his family in the country town, living with his father and regularly attending the local hospital for dressings.

Photo 9: Homeless Team Nurse with Patient

4.1.Co-Morbidities amongst Homeless Team Patients

The RPH Homeless Team records the primary and up to two secondary diagnoses (category 1 and category 2) for each patient episode of care, as shown in Figure 21. Presenting issues are classified into five broad categories: medical, injury, psychiatric, alcohol and other drugs (AOD) and social. Whilst the majority of patients seen by the Homeless Team present to ED primarily for medical issues, in 92% episodes of care at least one secondary morbidity was recorded. Secondary diagnoses related to AOD issues were common, affecting 42% of patients. It is critical to note more than half (54%) of patients had social issues as a secondary diagnosis, and this emphasises the importance of the RPH Homeless Team which works to engage patients and link them with community support.

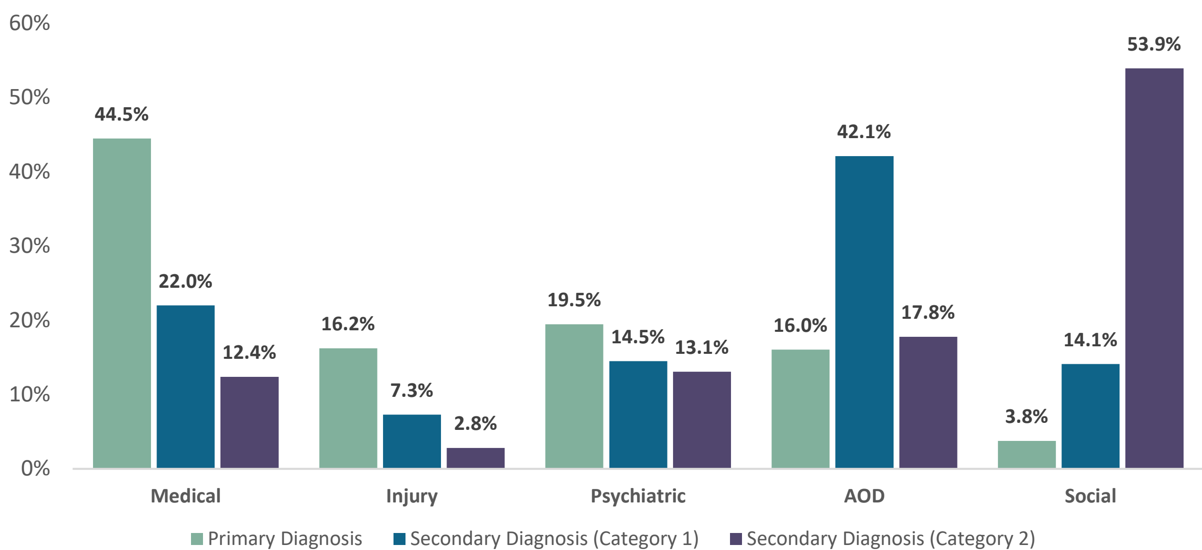


Figure 21: RPH Homeless Team Patients Presenting Diagnoses

Box 4 shows an example of how complex health morbidities can lead to increased health service utilisation.

Box 4: Increasing Health Service Utilisation due to Deteriorating Health

Kelly is lady in her late forties who had been a street homeless for many years with polysubstance abuse and evasive of medical attention. She became seriously unwell in July 2016 after becoming septic due to severe pneumonia and subsequently spent three weeks in ICU and a further four weeks in a general hospital ward. She was diagnosed with early onset dementia during this admission, the onset of which had gone unnoticed due to her itinerant and chaotic life. She was transferred to a psychogeriatric unit and then to an aged care facility but required a further period of psychogeriatric admission for difficult behaviours before being transferred to long term care in another aged care facility.

Once this marginalised woman was forced off the streets by severe illness, her needs were recognised as requiring mainstream dementia services.

Overall, only 1% of episodes of care provided to patients sleeping rough involved a single primary diagnosis, highlighting the extreme vulnerability and complexity of these patients. Of patients who were in temporary accommodation or rough sleeping, 89% had three diagnoses recorded, compared to only 58% of episodes for patients in long-term housing (see Figure 22). Given that 74% of all episodes of care provided by the RPH Homeless Team are provided to rough sleepers, this demonstrates the complexity of patients seen and supported by the team.

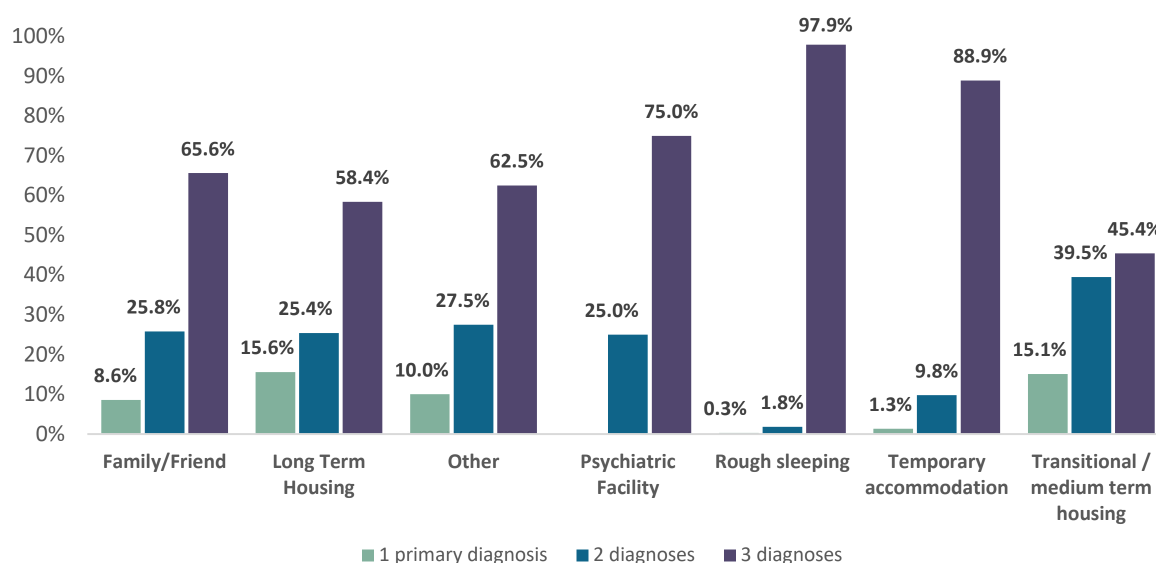


Figure 22: Number of Diagnoses by Accommodation Type

The type of primary diagnosis per episode of care also differed according to accommodation type (see Table 2). Medical diagnoses, those pertaining to an acute illness or exacerbation of underlying health conditions, were the most common across patients living in all accommodation types. Diagnoses related to social issues were more common in episodes of care provided to patients who were rough sleeping or staying in temporary accommodation (4%) than for episodes of care where patients had transitional accommodation or long-term housing (1% and 2% respectively).

Table 2: Primary Diagnoses for Patient Episodes of Care by Accommodation Type

Primary Diagnosis	Type of Accommodation N (%)					
	Rough Sleeping	Medium Term Accomm.	Long Term Housing	Family/ Friend	Psychiatric Facility	Other
Medical	598 (44.6)	72 (47.4)	85 (49.1)	29 (31.2)	1 (33.3)	17 (42.5)
Injury	218 (16.3)	21 (13.8)	20 (11.6)	27 (29.0)	1 (33.3)	4 (10.0)
Psychiatric	256 (19.1)	31 (20.4)	35 (20.2)	19 (20.4)	1 (33.3)	9 (22.5)
AOD	209 (15.6)	26 (17.1)	29 (16.8)	16 (17.2)	0 (0.0)	10 (25.0)
Social	60 (4.5)	2 (1.3)	4 (2.3)	2 (2.2)	0 (0.0)	1 (2.5)

Note: Rough sleeping includes temporary accommodation; Medium-term accommodation includes transitional

4.2. Physical Morbidity Burden

The physical morbidity burden experienced by RPH Homeless Team patients is substantial (Figure 23). When assessed at first contact with the Homeless Team hepatitis B and hepatitis C, injuries including wounds and fractures, accounted for substantial morbidity amongst this cohort. Diabetes Mellitus and associated complications are common, affecting over 10% of patients seen by the RPH Homeless Team. Despite an average age of only 44 years, cardiovascular disease, including stroke and heart disease, and conditions affecting the brain (including brain injuries and epilepsy) impacted over 5% of patients on their first contact with the Homeless Team.

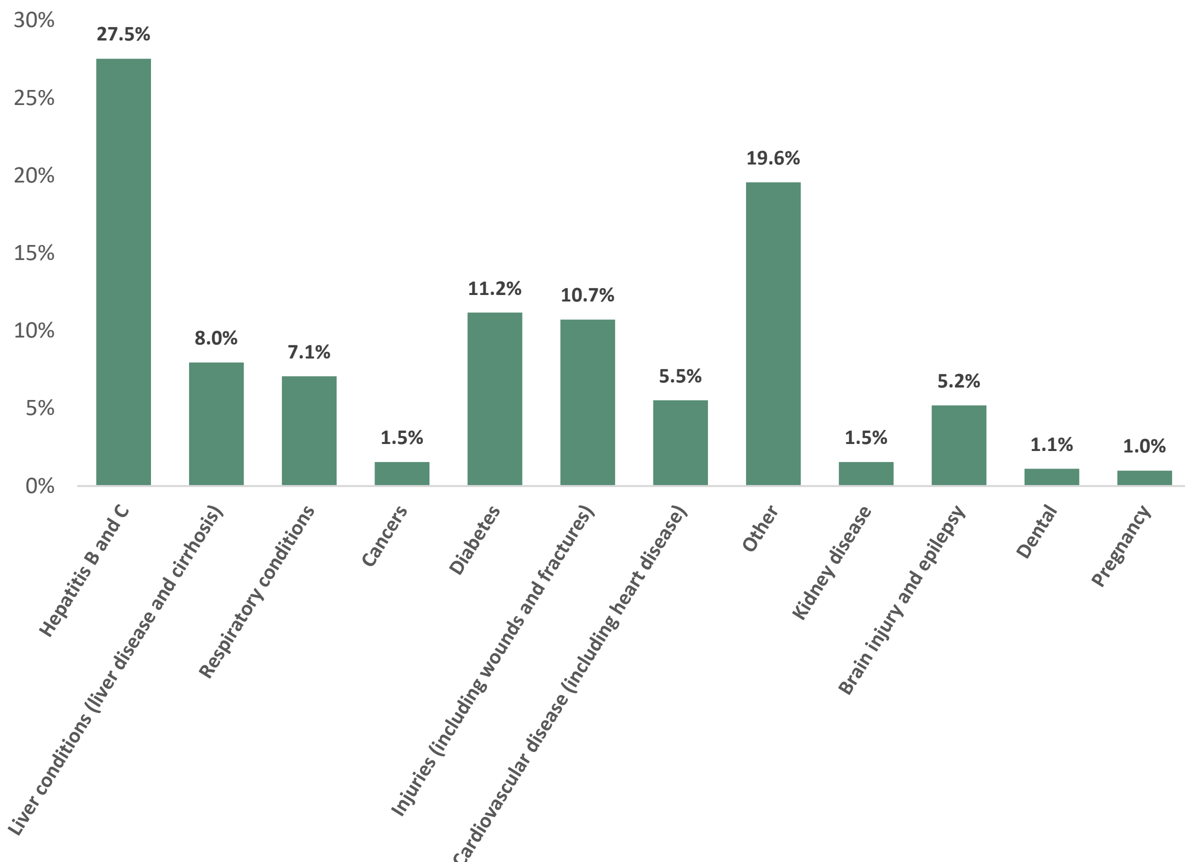


Figure 23: Physical Morbidity Burden at First Contact with the RPH Homeless Team
Note: Patients could have more than one pre-existing physical morbidity recorded

4.3.Psychiatric Conditions

People experiencing homelessness have a substantially higher prevalence of psychiatric morbidity than the general population[6,7] and the patients seen by the RPH Homeless Team are no exception to this. Over a quarter (26%) of patients had a history of depression on their first contact with the Homeless Team and over 15% had deliberately self-harmed through overdose or injury (Figure 24).

Serious psychiatric conditions including Schizophrenia and Bipolar are also common in this group, affecting over 14% of patients. This is substantially higher than the general population prevalence of schizophrenia of 1%.[23] On first contact with the Homeless Team over 9% of patients had been formally diagnosed with PTSD, consistent with the high levels of trauma experienced by people who are homeless. Untreated or undertreated mental health conditions have significant implications for people experiencing homelessness, the complexity of mental illness is often compounded by high rates of AOD use and adverse social circumstances create barriers to stabilising mental health.

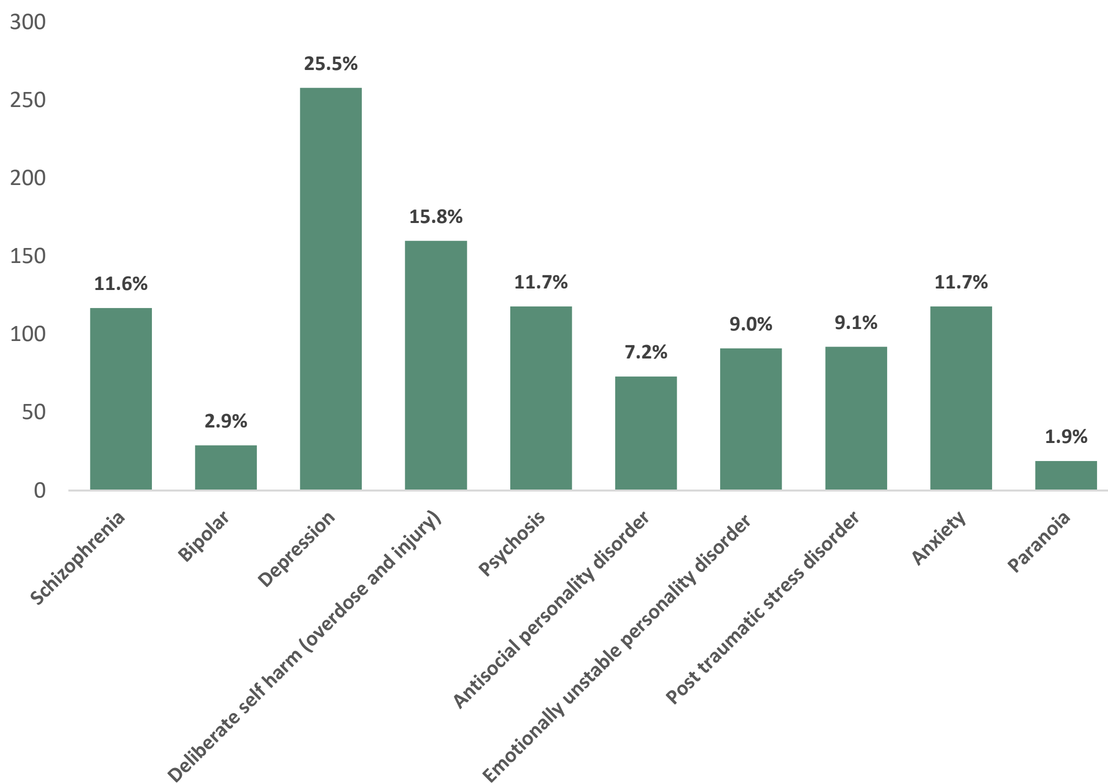


Figure 24: Psychiatric Morbidity Burden at First Contact with the RPH Homeless Team
Note: Patients could have more than one pre-existing psychiatric morbidity recorded

4.4. Substance Use

Issues with substance use are a substantial challenge for RPH Homeless Team patients. On first contact with the RPH Homeless Team, methamphetamine was the most common drug used, with 34% of patients using this drug. Alcohol use was also a key challenge, impacting 32% of Homeless Team patients (Figure 25). It is pertinent to note that these figures are likely to significantly under estimate AOD use due to the stigma attached to excessive alcohol consumption and use of illicit drugs.

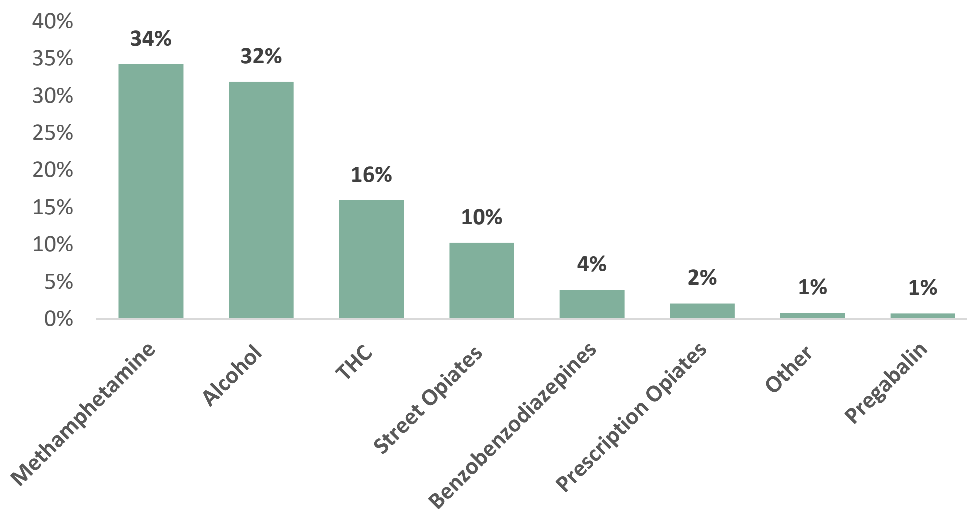


Figure 25: Alcohol and Other Drug Use at First Contact with the RPH Homeless Team

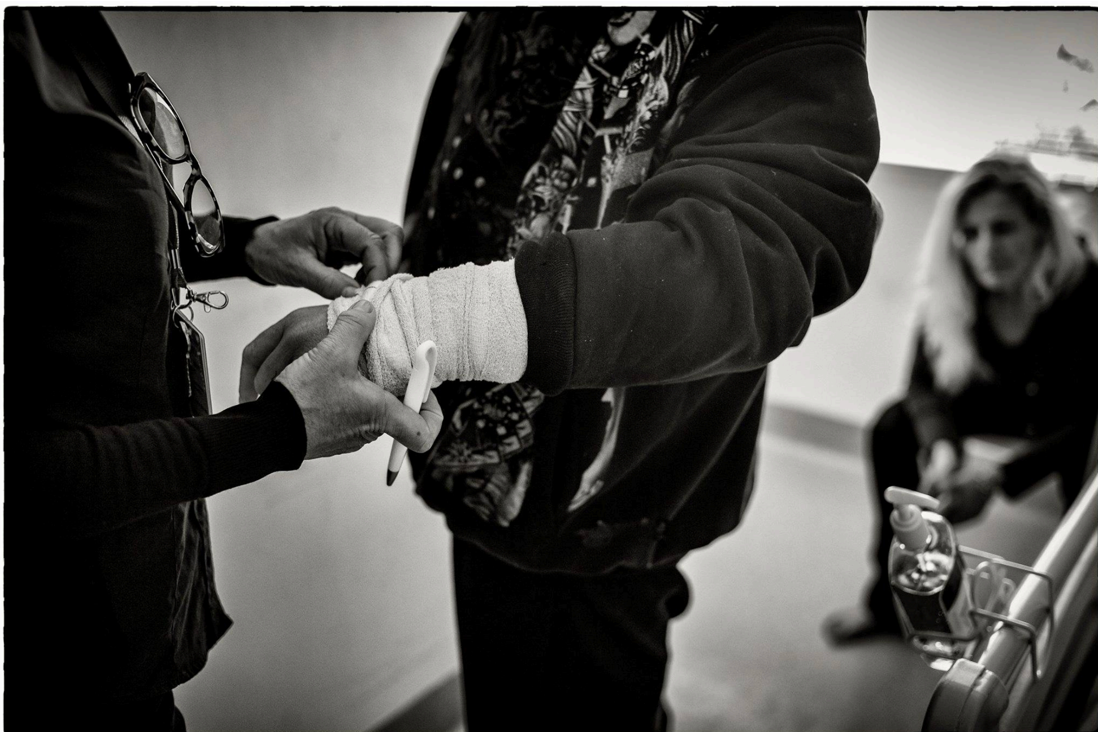


Photo 10: Patient Receiving Treatment from Homeless Team

5. Health Service Utilisation of RPH Homeless Team Patients

While homelessness is readily recognised as a social and humanitarian issue, it is also a substantial public health issue, and places an enormous burden on hospitals. This chapter analyses the patterns of health service utilisation for the cohort of 1,014 patients seen by the RPH Homeless Team in the 2.5 year period between June 2016 and December 2018. For a sub-set of patients that have at least six months follow-up from first contact with the Homeless Team, changes in health service utilisation have been outlined.

> Clearly the ED is a significant focus and entry point for the rough sleepers of Perth. The high attendance rate (seen in worldwide) speaks to the disengagement of the homeless with current healthcare provision. RPH is extremely lucky that an pre-eminent Emergency Staff Specialist has taken on the liaison role for the Institution. It's a clear signal to other RPH staff of the considered value of the Homeless service.
>
> **- Dr Adrian Gillin, Royal Prince Alfred Hospital, NSW**

5.1.Health Service Utilisation Prior to the RPH Homeless Team

This subchapter presents data on patients' healthcare utilisation at EMHS hospitals in the three years prior to their first contact with the RPH Homeless Team.

Photo 11: RPH ED Entrance

5.1.1. Pre-RPH Homeless Team ED Presentations

The overrepresentation of people experiencing homelessness among the most frequent presenters to ED has been found both in Australia[3,8] and internationally.[24] Factors associated with frequent ED presentations amongst patients experiencing homelessness are summarised in Figure 26.

Figure 26: Frequent ED Presentations among People Experiencing Homelessness

In the three years prior to seeing the RPH Homeless Team, 87% of clients had presented to RPH ED (EMHS) on at least one occasion. Cumulatively over this three-year period, there was a total of 8,278 ED presentations for the cohort. This represents an average of 8.2 presentations per person over three-years prior to contact with the Homeless Team or an equivalent of 2.7 presentations per-person-per-year (Table 3).

Table 3: EMHS ED Presentations for all Patients Prior to RPH Homeless Team Contact

n=1,014	3 years prior	2 years prior	1 year prior	Total
Total people n(%)^	458(45)	519(51)	784(77)	880(87)
Total presentations	2,051	2,268	3,959	8,278
Mean (SD)^	2.0(4.3)	2.2(4.3)	3.9(5.2)	8.2(11.4)
Range	0-39	0-37	0-43	0-91

^Percent and mean of total group (n=1,014), including individuals who did not present to ED in this period

When the data is broken down into years, it can be seen that nearly half (48%) of EMHS ED presentations occurred in the year directly prior to contact with the Homeless Team. This pattern of increasing health

service utilisation in the year prior to first contact with support services has been observed in some of our previous work with the 50 Lives 50 Homes project.[20] The case study in Box 5 illustrates deterioration in health status and escalating health service utilisation.

Box 5: Unresolved Health Conditions and the Need for a Medical Recovery Centre in Perth

Background

Liam is a young male in his early twenties who has been cycling in and out of homeless for at least four years. He has multiple co-morbidities including diabetes, depression, asthma, dental problems, mobility and learning difficulties. He has been on the waiting list for 50 Lives since June 2018 but needs a single bedroom unit and these are in scarce supply. His medical records indicate that he has been advised to use insulin four times a day and to store it in a fridge – an impossibility when living on the street.

Health Service utilisation and cost

Liam has presented to ED 33 times (26 at RPH) since 2016. He has also spent 31 nights as an inpatient with 90% of these being in the past year. His increasingly frequent hospital attendances relate particularly to his diabetes. In the last 11 months (March 2018 to February 2019), he has attended ED 15 times (10 at RPH) and been admitted for 19 nights, equating to a cost of $63,117.*

Liam has many complex mental and physical health concerns, however by the nature of ED, it is usually only the presenting and immediate issue that is addressed before discharge. In the past 15 presentations to ED, 13 of these have been recorded as diabetic related. This equates to $9,945 in preventable ED presentations for a condition that could be far better managed if he was housed and had a fridge for storing his insulin. Other health issues such as his asthma and schizophrenia could also be potentially stabilised with housing and GP support.

Benefits of a Medical Recovery Centre for this patient

Liam's diabetes continues to worsen as reflected in the recurrent cycle of ED presentation and discharge. Given the medical uncertainty about his type of diabetes and his other health issues, if Perth had a Medical Recovery Centre he could be discharged to it for a period, enabling his diabetes to be further investigated and stabilised, and his mental health care reviewed.

*Costs based on the Independent Hospital Pricing Authority (Round 20) figures for the 2015-16 financial year for WA[25]

5.1.2. Pre-RPH Homeless Team Inpatient Admissions

Overall, in the three years prior to contact with the RPH Homeless Team, 92% of patients had an EMHS inpatient admission (Table 4). For these patients, there were a total of 2,922 separate inpatient admissions totalling 15,987 days over the three year period.

Table 4: EMHS Inpatient Admissions and Days for all Patients Prior to RPH Homeless Team Contact

n=1,014	3 years prior	2 years prior	1 year prior	Total
Inpatient Admissions				
Total people (%)^	307(30)	331(33)	878(87)	937(92)
Total admissions	738	785	1973	3496
Mean (SD)^	0.7(1.7)	0.8(1.7)	1.9(2.0)	3.4(4.1)
Range	0-24	0-13	0-16	0-38
Days Admitted				
Total days	4029	3368	8590	15987
Mean LOS (SD)^	4.0(16.7)	3.3(12.2)	8.5(15.4)	15.8(31.0)
Range	0-270	0-141	0-240	0-313

^Percent and mean of total group (n=1,014). Inpatient days calculated per person, not per admission.

The largest proportion of patient inpatient admissions were seen in the year before contact with the Homeless Team, with 87% of patients admitted in this period. It should, however, be noted that one client spent a total of 270 days admitted as an inpatient in a one year period, and a total of 313 days admitted over three years, indicating a huge variability in length of stays between patients. In the year prior to support from the RPH Homeless Team, patients were admitted for on average for 8.5 days, substantially higher than the average of 4.9 days across the EMHS, particularly given the young average age of this cohort of 44 years.[26]

5.1.3. Associated Economic Cost

Calculating hospital costs based on IPHA[25] costs for ED presentations and inpatient days allows us to conservatively estimate that the 1,014 patients seen by the RPH Homeless Team had an aggregate EMHS hospital utilisation cost of over $49 million over a three-year period (Table 5). This equates to an estimated average cost of $16,366 per-person-per-year over the three years prior to HT contact.

Table 5: Aggregate EMHS Hospital Utilisation in the Three Years Prior to RPH Homeless Team Contact and Associated Costs

	Presentations/ Days^	Unit Price*	Aggregate Cost	Cost per Person (n=1,014)	Per Person Per Year
Aggregate ED Presentations	8,278	$765	$6,332,670	$6,245	$2,082
Aggregate Inpatient Days	15,987	$2,718	$43,452,666	$42,853	$14,284
TOTAL			***$49,785,336***	***$49,098***	***$16,366***

^ Hospital data from East Metropolitan Health Service area (RPH, Bentley, Armadale/Kalamunda) only
*Costs based on the Independent Hospital Pricing Authority (Round 20) figures for the 2015-16 financial year for WA.[25]

As previously mentioned, the largest service usage was in the year directly prior to first contact with the Homeless Team. Crude costings based on aggregate EMHS ED and inpatient data combined show that in the one year prior, the 1,014 patients had an aggregate health service usage of over $26 million, or $26,012 per-person (Table 6).

Table 6: EMHS Hospital Utilisation in the One Year Prior to the RPH Homeless Team

	Presentations/ Days^	Unit Price*	Aggregate Cost	Cost per Person (n=1,014)
Aggregate ED Presentations	3,959	$765	$3,028,635	$2,987
Aggregate Inpatient Days	8,590	$2,718	$23,347,620	$23,025
TOTAL			***$26,376,255***	***$26,012***

^ Hospital data from East Metropolitan Health Service area (RPH, Bentley, Armadale/Kalamunda) only
*Costs based on the Independent Hospital Pricing Authority (Round 20) figures for the 2015-16 financial year for WA.[25]

These costs estimates are likely to be conservative as only data for the EMHS catchment were available, and thus does not include hospitals in the North or South Metropolitan Health Services or the WA Country Health Service. This cost also does not incorporate the different costs for psychiatric inpatient beds, critical care beds, operating theatre costs or medication expenses. While conservative, it illustrates the enormous preventable burden associated with rough sleeping and frequent hospital use.

5.2. Changes in EMHS Hospital Utilisation after Support from the RPH Homeless Team

This subchapter presents changes in hospital utilisation for two cohorts of patients, those with six months pre/post first contact with the team and those with 12 months pre/post first contact with the RPH Homeless Team.

5.2.1. Changes in EMHS ED Presentations Post Contact with the RPH Homeless Team

For the 824 patients with at least six months pre/post data, in the six months after first contact with the RPH Homeless Team there was an observed decrease of 31% in the number of patients presenting to EMHS EDs. During this period there was also a smaller 7% decrease in the total number of ED presentations amongst Homeless Team patients compared to the six months before contact (Table 7).

Table 7: EMHS ED Presentations Six Months Pre/Post Homeless Team Contact

	6 Months (n=824)		
	Pre	Post	% Change
Total people n(%)^	808(98)	560(68)	-31
Total presentations	2,750	2,558	-7
Mean (SD)	3.3(3.3)	3.1(5.0)	
Range	0-28	0-45	

^ Percentage and mean of total patients (n=824), who presented at least once in the six months pre or post Homeless Team contact

For the 630 patients who at least 12 months pre/post data was available, there was an observed decrease of 21% fewer clients presenting to EMHS EDs but a small increase of 2% in total presentations when comparing ED presentations in the 12 months pre/post first contact with the Homeless Team (Table 8). This indicates that the proportion of patients presenting to ED decreased, but those who continued to present did so more frequently on average. Congruent with findings of previous studies, this increase in presentations is likely due to increased help-seeking for conditions that were previously untreated or undertreated.

Table 8: EMHS ED Presentations 12 Months Pre/Post Homeless Team Contact

	12 Months (n=630)		
	Pre	Post	% Change
Total people (%)^	621(99)	488(77)	-21
Total presentations	3,201	3,267	+2
Mean (SD)	5.1(5.5)	5.2(7.8)	
Range	0-44	0-57	

^ Percentage of total patients n=630 who presented at least once in the 12 months pre or post Homeless Team contact

Overall, 54% of RPH Homeless Team patients had a decrease in EMHS ED presentations in the year following support compared to the 12 months prior to first contact. There was no change observed for a further 11%, while 34% had an increased number of ED presentations (Figure 27).

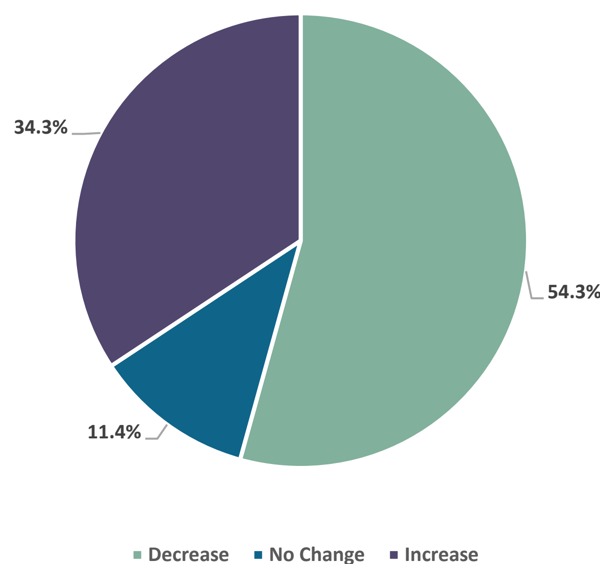


Figure 27: Proportion of Patients with Changes in ED Presentations 12 Months after First Contact with the RPH Homeless Team

5.2.2. Changes in EMHS ED Re-Presentation Rates

Early representation can be an indication that the presenting issues were not adequately dealt with in the first ED visit or that the circumstances into which the patient was discharged have adversely affected resolution, both common issues for the homeless population.

*- **Dr Amanda Stafford, Clinical Lead, RPH Homeless Team***

People experiencing homelessness often cycle between the hospital and the streets with repeated use of the ED. As well as being some of the most frequent ED presenters, people experiencing homelessness have high rates of ED re-presentation and re-admission.[3,24] In the six months prior to support from the RPH Homeless Team, 21% of the patient group re-presented to ED within 7 days, with 72% of these re-presentations resulting in re-admission for inpatient treatment. In the six months after first contact with the RPH Homeless Team the proportion of patients re-presenting to ED within 7 days increased slightly to 25%, however only 59% of these re-presentations resulted in inpatient re-admissions (Table 9). The same pattern is also seen in the 12 months pre/post support cohort. This likely represents earlier help-seeking for health issues which allows them to be dealt

with in an ED visit rather than requiring costly hospital admission and results in considerable healthcare cost savings.

Table 9: Re-Presentation and Re-Admissions Pre/Post Homeless Team Support after Discharge

	6 months (n=824)		12 Months (n=630)	
	Pre	Post	Pre	Post
Within 7 days (% pre/post cohort)	169(20.5)	210(25.5)	188(29.8)	246(39.1)
Resulting in re-admission (% of presentations)	121(71.6)	123(58.6)	136(72.3)	148(60.2)
Within 30 days (% pre/post cohort)	208(25.2)	283(34.4)	235(37.3)	332(52.7)
Resulting in re-admission (% of presentations)	124(59.6)	141(49.8)	141(60.0)	166(50.0)

5.2.3. Homelessness in Frequent RPH ED Presenters

There has been a substantial decline since 2016 in the proportion of NFA patients amongst the most frequent presenters at RPH ED. The major intervention for NFA ED presenters is linking them to the Homeless Team. NFA individuals are significantly over-represented in RPH ED, accounting for 1 in 25 ED presentations but make up only a fraction of the 680,000 EMHS catchment population. The RPH Homeless Team works intensively with these patients to address their complex health issues and link them to HHC and other community based support. This has led to a substantial decline in the proportion of NFA patients amongst the most frequent presenters to RPH ED, with the proportion of NFA patients in the top 10 most frequent presenters declining from 80% in 2017 to 30% in 2018 (Figure 28).

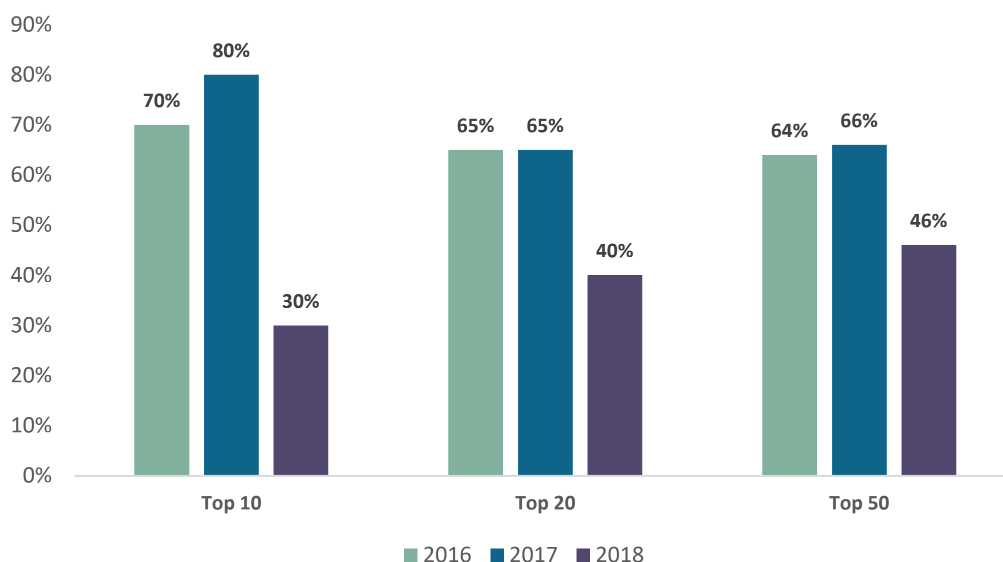


Figure 28: Proportion of NFA Patients amongst Most Frequent Presenters to RPH ED

The following case study gives an example of the Homeless Team working with a frequent presenter to address underlying issues and divert them away from ED (Box 6).

Box 6: RPH Homeless Team Advocacy for a Frequent Presenter

Background

Hamish is an amputee in his mid-fifties and is heavily reliant on a wheelchair for his mobility and community access. His history includes AOD issues, a brain injury and past trauma. Hamish spent nearly four years living in a psychiatric hostel before undergoing an episode of significant behavioural change in late 2016. He was admitted to a secondary hospital mental health unit. However, no cause was ever identified for his acute psychiatric changes and he was discharged to the street. This was one of his first experiences of sleeping rough and being unable to cope he reported to an ED within 24 hours of leaving the mental health unit.

Hospital Presentations

Hamish had only attended an ED once in the two years prior to becoming homeless. However, once he began living on the streets, his use of acute and emergency healthcare rose rapidly. For 13 months, between late 2016 and early 2018, he amassed 64 ED visits and stayed a total of 58 days as an inpatient across 11 different admissions. His healthcare costs totalled $48,960 in ED and $157,644 as an inpatient.* When admitted, he was often aggressive with staff and rapidly discharged before his social issues could be addressed, leading to a revolving door of frequent admission and discharge. This frustrated efforts to get him housed, although his disability and medical issues were clearly incompatible with street homelessness.

Role of HHC

The RPH Homeless Team continued to advocate for Hamish despite the ongoing difficulties and were finally able to secure a longer admission with a suitable medication regime to settle his aggressive behaviour. This allowed the Homeless Team to build rapport and complete the process needed for him to enter an aged care hostel of his choosing.

Current Situation

Residing in the aged care hostel since February 2018, Hamish has had no inpatient admissions and has only presented to ED once, instead attending a handful of non-acute outpatient clinics.

*Costs based on the Independent Hospital Pricing Authority (Round 20) figures for the 2015-16 financial year for WA.

5.2.4. Changes in EMHS Inpatient Admissions and Days Once Supported by RPH Homeless Team

Following on from the changes in ED presentations described above, analysis of the Homeless Team patient database also demonstrated significant shifts in the pattern of inpatient admissions. The ED and inpatient data sets are closely related because effectively all inpatient admissions in the homeless population are via ED with almost no elective or planned hospital admissions.

In the six months after support from the RPH Homeless Team, the proportion of patients admitted as EMHS inpatients reduced by 39%, compared to the six months prior to first contact. There was 20% reduction in total admissions and 36% decrease in average length of stay during this time. The average number of admissions per patient reduced from 1.5 in the six months prior to first contact to 1.2 in the six months following support from the RPH Homeless Team (Table 10).

Table 10: EMHS Hospital Inpatient Admissions 6 Months Pre/Post Support from RPH Homeless Team

	6 Months (n=824)		
	Pre	Post	% Change
Inpatient Admissions			
Total people (%)^	697(85)	428(52)	-39
Total admissions	1,244	999	-20
Mean (SD)	1.5(1.4)	1.2(2.0)	
Range	0-12	0-21	
Days Admitted			
Total days	6,020	3,901	-35
Mean (SD)^	7.3(14.3)	4.7(11.2)	
Range	0-94	0-129	

^Percentage of total group for this period (n=824)

In the 12 months following support from the RPH Homeless Team, the proportion of patients admitted as inpatients reduced by 27% compared to the year prior to first contact. There was a 9% reduction in total admissions and 10% decrease in the average number of admissions per patient during this time (Table 11). There was a 28% reduction in the total days spent admitted as an inpatient in the 12 months post support compared to the previous 12 months, and a significant reduction of 2.72 days in the average days admitted (data not shown in table).

Table 11: EMHS Hospital Inpatient Admissions 12 Months Pre and Post Support from the RPH Homeless Team

	12 Months (n=630)		
	Pre	Post	% Change
Inpatient Admissions			
Total people (%)^	555(88)	387(61)	-27
Total admissions	1,337	1,210	-9
Mean (SD)	2.1(2.2)	1.9(3.0)	
Range	0-16	0-27	
Days Admitted			
Total days	6,163	4,452	-28
Mean (SD)^	9.7(17.5)	7.1(14.0)	
Range	0-240	0-129	

^Percentage of total group for this period (n=630). Days calculated per person not per admission.

Overall, 60% of admitted RPH Homeless Team patients had a reduction in the number of inpatient days in the year following support compared to the 12 months prior to first contact. There was no change observed for a further 13%, while an increased length of stay was observed for a further 27% of patients (Figure 29).

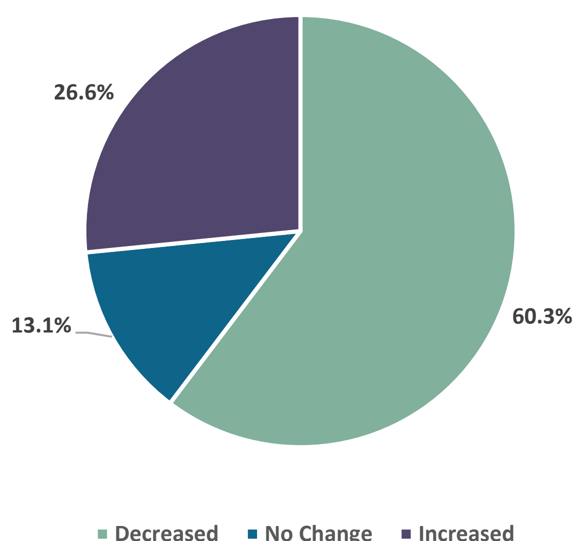


Figure 29: Proportion of Patients with Changes in Days Admitted 12 Months after First Contact with the RPH Homeless Team

5.2.5. Changes in Discharged Against Medical Advice

Patients who discharge against medical advice (DAMA) have a higher risk of adverse health outcomes and are more likely to be re-admitted. [27-29] A retrospective matched cohort study found DAMA patients were more likely to be homeless and have comorbidities, such as mental health or AOD issues.[27] The DAMA group were also more likely to be readmitted and at 12 months follow up they had a higher in hospital mortality rate.[27] The study recommended targeted interventions to reduce DAMA in vulnerable populations.[27] Other common characteristics associated with DAMA are being male and a history of AOD abuse.[30] In the 12 months following support from the RPH Homeless Team the proportion of patients who were recorded as having DAMA reduced to 22%, compared to 28% in the year prior to first contact; a 21% reduction (Table 12).

Table 12: Discharged Against Medical Advice Pre/Post Contact with the RPH Homeless Team

	12 Months (n=630)	
	Pre	Post
Total people (%)^	177(28)	139(22)
Total admissions	184	196

^Percentage of total group for this period (n=630)

The RPH Homeless Team has been able to encourage patients who would previously self-discharged rapidly from hospital to stay and complete their treatment. This can be via regular visits from the familiar, non-judgemental staff from HHC, who help patients to understand the importance of staying for treatment and make them aware that the Homeless Team will advocate for them during their stay. The Homeless Team also interact with ward staff to increase their understanding of the homeless patients' needs, for example the need for increased analgesia or anxiolytic medication, to improve the patients' comfort in hospital. This is particularly important for patients requiring long inpatient admissions, e.g. for heart valve infections, and presents an opportunity for the Homeless Team to do

extensive casework to ensure that stable accommodation is available on discharge to support the patients' recovery.

5.2.6. EMHS Hospital Utilisation Cost Savings

Basic healthcare cost associated with the observed changes in EMHS ED presentations and inpatient admissions have been calculated for RPH Homeless Team patients with at least six months follow up post first contact. As noted above, this costing does not incorporate the different costs for psychiatric or critical care beds, operating theatre costs or medication expenses and is therefore conservative.

In the six months after support from the RPH Homeless Team there was an estimated cost saving of $5,906,322 based on the observed reduction in EMHS hospital service utilisation (Table 13). This equates to a reduction of $7,168 per patient, compared to the costs associated with ED presentations and inpatient admission in the six months prior to first contact with the Homeless Team. For the subset of patients (n=630) for whom 12 month follow up data was available, observed reductions in inpatient admissions equated to a cost saving of $4,600,008 or $7,302 per patient.

There is potential for much larger healthcare cost savings if homeless individuals access stable long-term housing, as shown by Perth's 50 Lives 50 Homes program.[20] This solution is largely untapped as the majority of patients assisted by the RPH Homeless Team do not achieve equivalent levels of housing stability and support in the 6-12 months after their first contact due to the lack of community caseworkers and suitable housing options.

It is also germane to note that the estimated cost saving of $4.6 million in reduced EMHS utilisation 12 months after support from the RPH Homeless Team, represents a return on investment of $9 for every $1 spent by EMHS on funding the service. This is based on the operational costs of a fully funded RPH Homeless Team of approximately $500,000/year (based on current staffing model as depicted in Figure 4 and including 1.0FTE Senior Community Caseworker for which the Homeless Team is seeking recurrent funding beyond June 2019).

Table 13: Change in Cost Associated with Changes in EMHS Hospital Utilisation 6 and 12 Months after First Contact with the RPH Homeless Team

	Change in Presentations/ Days	Unit Price*	Change in Aggregate Cost	Change in Cost Per Person
Six Months pre/post (n=824)				
Change in ED Presentations	-192 presentations	$765	-$146,880	-$178
Change in Inpatient Days	- 2,119 days	$2,718	-$5,759,442	-$6,999
TOTAL			-$5,906,322	-$7,168
Twelve Months pre/post (n=630)				
Change in ED Presentations	+66 presentations	$765	+$50,490	+$80
Change in Inpatient Days	-1,711 days	$2,718	-$4,650,498	-$7,382
TOTAL			-$4,600,008	-$7,302

*Costs based on the Independent Hospital Pricing Authority (Round 20) figures for the 2015-16 financial year for WA.[25]

6. New and Targeted Initiatives in Homeless Health

The RPH Homeless Team has been proactive in identifying service gaps and ways of strengthening RPH and the wider health system capacity to improve the health of people who are homeless in Perth. The need for a strengthened collaborative response to meet the unique needs of vulnerable populations was emphasised in the recent Sustainable Health Review Interim Report.[14]

This chapter describes three key initiatives instigated by the RPH Homeless Team since its first evaluation report (May 2018), as depicted in Figure 30. The trialling of a full-time team caseworker is an example of internally driven innovation by the Homeless Team. Furthermore, the securing of a competitive WA Health Research Translation Project grant in late 2018 highlights the way in which clinical expertise coupled with robust analysis of homeless patient data can be used to obtain funding to pilot an essential service for vulnerable individuals with dual mental health and substance-related diagnosis. The third new initiative described in this chapter pertains to the Winter Demand Reduction Strategy pilot, and reflects growing WA Health recognition of the Homeless Team and RPH as an ideal setting for the piloting of innovative solutions to reduce hospital demand.

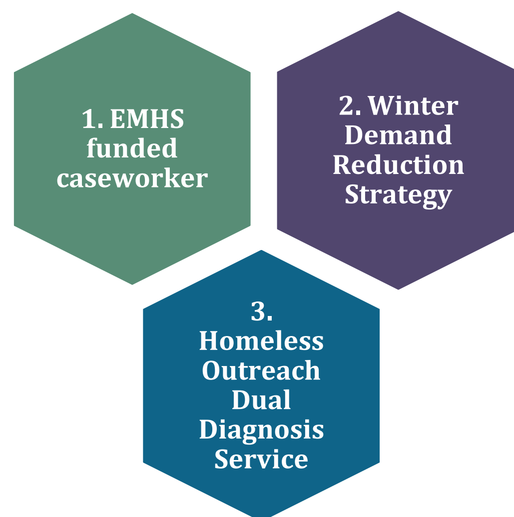


Figure 30: Targeted RPH Homeless Team Service Delivery and Collaborative Initiatives

6.1. EMHS Funded Caseworker

In its first six months of operation, the Homeless Team did not have a caseworker, and this limited its capacity to address some of the underlying housing, social and community support needs that contribute to the repeated hospital attendances of many rough sleepers.

As shown in Figure 31, a caseworker from Ruah commenced in December 2017, initially 4 hours per week, increasing progressively over the next year to 16 hours per week (0.4FTE). Between June and November 2018, the community caseworker hours increased further to five days x 6 hour shifts (0.8FTE) with short-term funding from the WA Health Winter Demand Reduction Strategy. Both the funding from Ruah and

the Winter Demand Reduction Strategy ended in November 2018. To avert the loss of its valuable caseworker, interim funding was secured through the EMHS Population Health Unit for a further seven months. In recognition of the volume of work required, the caseworker's hours were increased, bringing them to 1.0FTE or 8 hours x 5 days. This means that the caseworker is working at RPH full-time and can continue assessment and case management uninterrupted throughout the week.

This funding runs out on 30 June 2019, and sustainable funding is required to continue this position that contributes significantly to the work and impact of the Homeless Team.

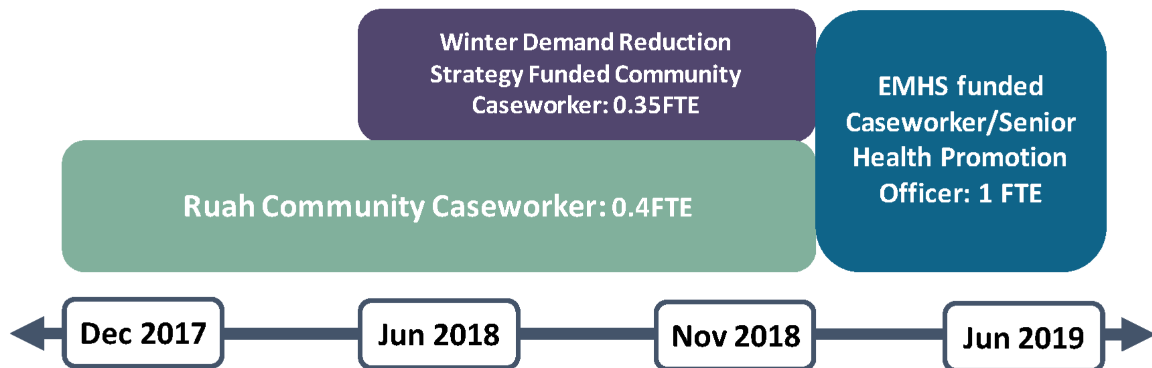


Figure 31: Funding for Homeless Team Caseworker

Photo 12: Homeless Team Casework with Patient

The role of the Homeless Team caseworker is summarised in Box 7.

Box 7: Role of the RPH Homeless Team Community Caseworker

The role of the Homeless Team community caseworker is complex and broad. It involves facilitating the integration of hospital care with homelessness community services for housing, advocacy, emergency relief, case management, mental health and substance use support, with the goal of maximising client outcomes post-discharge. Through the Homeless Team caseworker, there is also greater scope to:

Connect patients to community supports while in hospital. Where patients have links to homelessness services (e.g. a caseworker), the Homeless Team caseworker will contact them to inform them of the issues and encourage them to engage with the patient in hospital.

Investigate accommodation options for patients to avert discharge to streets. This can include finding respite accommodation to ensure immediate client safety following hospital stays through short-term accommodation in low price backpackers, or referral to crisis services and women's refuge accommodation. Referrals to transitional accommodation services are conducted during in-patient stays to enable patients to enter supported accommodation for up to 12 months.

Establish referral pathways that will improve post-discharge outcomes. Patients can be assessed and referred to emergency relief, mental health and community support programs. Assistance with contacting agencies and completing referral forms with patients facilitates links to individualised case management, Aboriginal advocacy, youth, aged care and disability support. Assistance with long-term housing options can be provided through advocacy with Department of Housing and community housing providers and referral to 50 Lives 50 Homes.

Facilitate continuity of health care beyond the hospital setting. The caseworker works closely with HHC GPs and nurses to promote primary care follow-up, providing long-term continuity of medical care for this vulnerable, multi-morbid patient group as an alternative to ED presentations.

Provide short-term case management support after discharge. Where homeless agency case management is not readily accessible for a patient, the caseworker can provide short-term case management to support the patient until they can access longer term casework through community services or transitional accommodation services. This has been very successful in keeping patients "on track" through their initial steps to stability and gives patients a contact person to assist them as an alternative to re-presenting to ED for social issues.

The employment of a full-time dedicated caseworker as part of the RPH Homeless Team allows patients to be supported across both hospital and community settings, an enormous asset not only to the team itself, but to RPH more broadly. This was observed by a number of interstate visitors (see Chapter 7), as reflected in the adjacent comment.

Having a specialist community caseworker (as opposed to a generalist hospital social worker) as part of the Homeless Team at RPH is invaluable. This gives patients access to immediate community supports and follow up after discharge. The caseworker is also able to assess and address some of the complex social issues underlying hospital re-presentations. Jace really is a passionate, compassionate, talented caseworker and an enormous asset to the RPH team. - **Stephanie Macfarlane, South Eastern Sydney Local Health District**

Addressing social determinants that contribute to poor health and hospital representations has always been part of the working philosophy of the Homeless Team, but capacity to do this has been greatly enhanced by having a full-time community caseworker as part of the team. The caseworker has the experience, contacts and availability to link patients to the necessary services they require. For instance,

patients wishing to stay in the Salvation Army's transitional Beacon facility require interviews with the facility staff. The caseworker is able to provide support to patients in this regard.

The following case study illustrates the breadth of support provided by the community caseworker.

Box 8: The Importance of Support from the Homeless Team Community Caseworker

Background
Steve is a male in his mid-fifties who has been homeless for a decade, spending the majority of that time sleeping rough or couch surfing. Without knowing his biological parents and separated at a young age from his adopted carers, Steve has a history of insecure accommodation, impaired cognitive and social development, low social resources and connection, substance use and physical health disability. Throughout his adult life Steve's sole instance of stable accommodation consisted of caring for an elderly Indigenous lady for six years in which he eventually experienced relationship breakdown coinciding with her deterioration in health. Whilst experiencing homelessness Steve had struggled with appropriately storing and consuming of medications and attending outpatient appointments for physical and mental health treatment. This led to frequent ED presentations and psychiatric admissions over the last four years at RPH, Armadale and Bentley.

Role of the Homeless Team caseworker
Through a series of consultations over multiple ED presentations and psychiatric admissions, the Homeless Team was able to work with Steve to ensure appropriate links with mental health resources and crisis services. Brokerage funds facilitated short-term respite accommodation at a backpackers to ensure Steve did not return to rough sleeping. The community caseworker enabled the Homeless Team to provide Steve with outreach support to attend appointments, leading to:

- development of a physical health care plan
- referral to programs to provide hospital-based case management support post-discharge from hospital
- secure supported transitional accommodation
- engage with a GP service for ongoing medical care
- assistance with medication management
- an application for Disability Support Pension

Whilst in supported accommodation Steve has been able to consistently engage with HHC staff for medication and physical health support and attend his appointments.

Current Situation
Steve continues to receive support from HHC to develop a healthy living routine and has not had any ED presentations or hospital admissions since achieving stable accommodation.

6.1.1. EMHS Caseworker Support Provided

Since November 2018, across only 23 working days, the RPH Homeless Team caseworker has provided 108 occasions of service to 68 individuals who were sleeping rough and would otherwise have been discharged back to immediate homelessness. As shown in Figure 32, the vast majority (90%) of these patients received assistance to find suitable accommodation.

The caseworker is able to provide different types of supports based on individual need. The most common type of support provided was information or informal support, followed closely by assistance with basic needs (e.g. transportation and food) and accommodation (see Figure 33). Most patients received more than one type of support during their contact with the RPH Homeless Team caseworker.

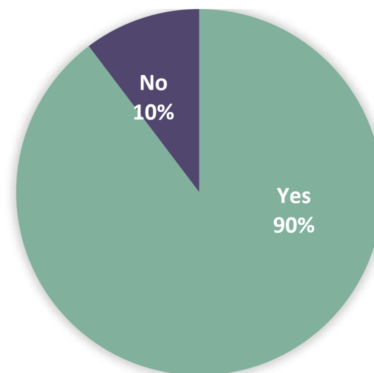


Figure 32: Proportion of Caseworker Patients who Received Assistance Finding Suitable Accommodation

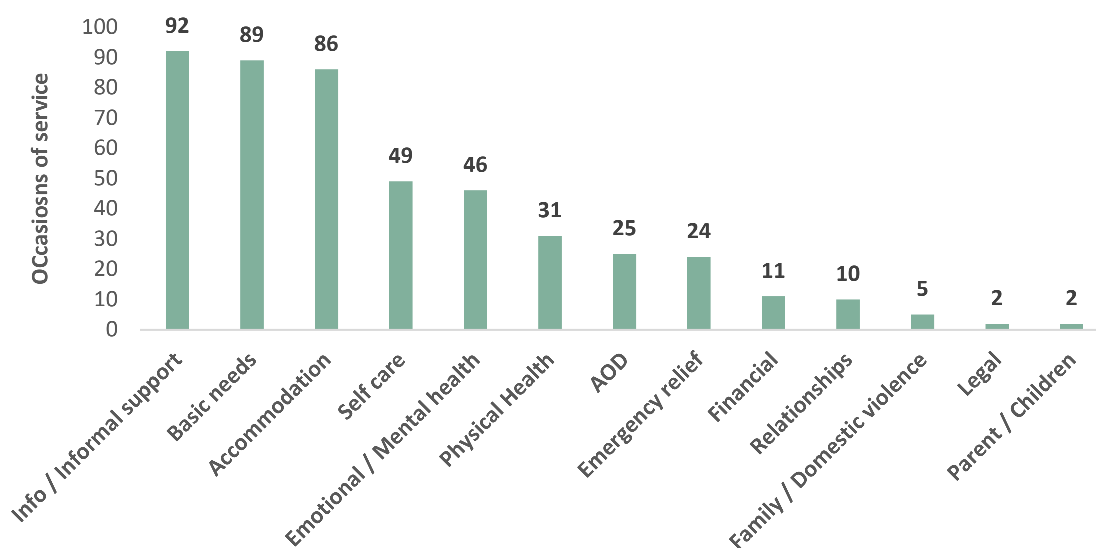


Figure 33: Type of Support Provided by Caseworker

6.2. Winter Demand Reduction Strategy Funding

6.2.1. Background to the Winter Demand Reduction Strategy

The winter flu season is associated with increases in hospital attendances, admissions and re-admissions, and presents a significant resource burden to the health system. People experiencing homelessness are more likely to present to ED during winter periods,[31] and when admitted have an increased length of stay.[21] Whilst literature on this issue is scarce, studies in the UK have shown that up to 40% of under 65 year olds experiencing homelessness had risk factors indicating a need for an influenza immunisation, in comparison to 13% of the general population.[32]

Improved discharge planning for homeless patients could be part of the solution to reducing length of stay and readmissions to hospital during this period of high demand.[24,33] This fits well with the recent recommendations from the Sustainable Health Review interim report which has called for more efficient use of resources and community-based care.[14]

6.2.2. Outline of the Winter Demand Reduction Strategy

The Winter Demand Reduction Strategy involved a pilot project to enable the RPH Homeless Team to enhance discharge planning for their patients and reduce the burden on ED during the high demand winter period. This pilot initiative forms part of the WA Health response to the recommendations of the 2016 Clinical Senate on Homelessness, as summarised in the box below.[34]

> The WA Health Office of the Chief Medical Officer funded RPH to undertake a pilot project which aims reduce the demand on EDs and increase the availability of inpatient beds during the Winter Demand Strategy period in 2018. The project supported the appropriately planned, expedited discharge of homeless patients following presentation to ED or hospital admission, including supporting priority transport, accommodation and outpatient medication needs during the peak winter period. The project also promoted influenza immunisation among Homeless Team patients where clinically appropriate. [34]

The aims of the 2018 Winter Demand Reduction Strategy were to:

i. increase influenza immunisation to 75% among RPH homeless patients;

ii. reduce ED presentations and inpatient admissions during the winter months;

iii. reduce length of stay during winter months; and,

iv. improve appropriate discharges with no increase in readmissions during the winter months.

The pilot project funding enabled the Homeless Team to increase the service scope and availability during the winter months. To do this, the project offered three strategies (Figure 34):

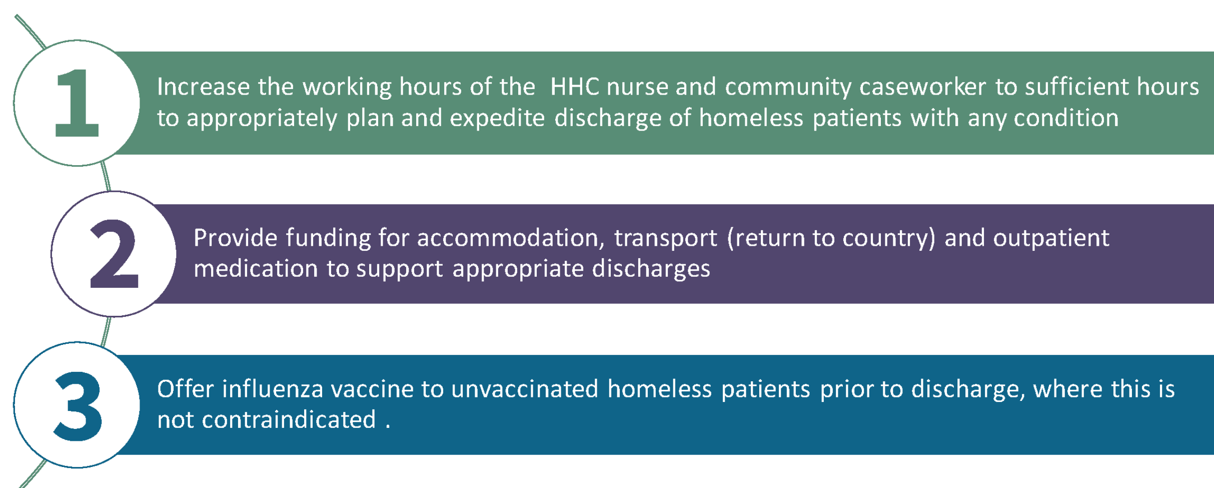


Figure 34: Winter Demand Reduction Strategy

6.2.3. Budget for the Winter Demand Reduction Strategy

This pilot project operated between June and November 2018, and had a total budget of $50,000. Just under 30% of this funding was devoted to increasing the hours of the HHC nurse and Ruah caseworker, whilst the remainder was used as brokerage funding, as shown in Table 14.

Table 14: Winter Demand Reduction Strategy Budget 2018

Item	Details	Budget
HHC Nurse	Extra 2 hours per day, Monday - Friday	$9,100
Ruah Caseworker	Extra 6 hours per week, Monday- Friday	$4,875
Funding for associated initiatives	Brokerage for accommodation, transport and medication	$36,025
Total		**$50,000**

6.2.4. Usage of the Winter Demand Reduction Strategy Funding

Number and Type of Patients Supported

Overall, 112 patients and their families were direct recipients of brokerage funding as part of the project. Of the 112 patients supported, 64% were male, 31% female and the remaining 5% of patients assisted were couples or families. The average age of patients support through the Winter Demand Reduction Strategy funding was 40 years old.

Type of Support Provided

Across the cohort of 112 patients, there were 167 occasions of service, with support from the Homeless Team caseworker and HHC nurses facilitating patient discharge in collaboration with the RPH Homeless Team Clinical Lead and RPH social workers. As shown in Table 15 below, the majority of the brokerage money was directed towards accommodation, with 498 days of low-cost accommodation provided to patients at an average cost of $68 per night. This is substantially cheaper than the average bed day cost in a WA public hospital of $2,718, or the average cost of an ED presentation of $765.[25] Congruent with the discharge aims of the Winter Demand Reduction Strategy, a small proportion of funding was spent on transport, medication and other needs to ensure safe and appropriate discharge.

Table 15: Winter Demand Reduction Strategy Brokerage Spending

Item	Occasions of Service	Amount
Accommodation	156	$33,885
Transport	6	$853
Medication	2	$163
Miscellaneous	3	$1,100
Total		**$36,000**

Stable accommodation is important for recovery after a hospital admission, allowing individuals time to recuperate without the challenges of sleeping rough. Being able to provide accommodation through brokerage funding also aids in assisting community services, and the Homeless Team community caseworker to locate and further assist discharged patients, which would not be possible if the patient was rough sleeping. The case study in Box 9 highlights the comparative cost, and the potential for a small amount of brokerage funding for accommodation to lead to housing and reduced admissions to ED.

Box 9: Benefit of Brokerage Funding from the Winter Demand Reduction Strategy

Background

Hannah is a young homeless Aboriginal woman who presented ten times to RPH ED during the 2018 winter period for a range of health issues from depression to drug-overdose. Traumatised from past events, it was difficult to provide her treatment, and she was often removed from the hospital due to threatening behaviour.

Brokerage Spending

Between July and mid-October 2018 a total of $3,024 was used by the Homeless Team to support appropriate discharge for Hannah, and in one instance for her partner – in the absence of this she would have returned to rough sleeping and circumstances placing her at higher risk of re-presentation. The brokerage funds provided 40 nights of accommodation, only $306 more than one night's stay as a hospital inpatient. Whilst it is unlikely that all of these nights stayed were in direct lieu of a hospital stay – the total cost had these nights been spent at RPH would have been $117,960.*

Role of RPH Homeless Team

Through the Homeless Team, a patient management plan was devised to manage Hannah's behaviour to enable meaningful treatment. Concurrently, the community caseworker was able to develop a close rapport with her and stabilise her social function through providing accommodation.

Current Health and Housing Situation

Due to gaining the initial accommodation provided by the brokerage money and through her case support from RPH, Hannah has been housed in a transitional accommodation facility. Since going into accommodation around October 2018, Hannah has only presented to ED on two occasions, and in both instances this was for mental health issues rather than AOD abuse - a markedly better outcome than the previous 10 visits before intervention by the Homeless Team.

*Note: Hospital costs based on the latest IHPA Round 20 figures for the 2015-16 financial year for WA[25]

6.2.5. Benefits of the Pilot Project for RPH more Broadly

The brokerage funds available through the Winter Demand Reduction Strategy funding have enhanced the capacity of the community caseworker to engage patients. Lack of flexibility in brokerage funding arrangements has previously led to insecure discharges or discharge to the street for homeless patients. By utilising brokerage funds, administered through the social work department, the community caseworker was able to stabilise the clients' situation. **Getting patients off the streets, even temporarily, makes a substantial difference to their ability to engage in forward planning and building a support plan. This is a vital first step to ending the repeated cycling between ED presentation, homelessness and inpatient admission.**

6.2.6. Impact of the Winter Demand Reduction Strategy

Whilst complete administrative health data is not yet available for the subset of patients supported through the Winter Demand Reduction Strategy, it is important to note that an average daily accommodation cost of $68 in backpackers or equivalent, is a fraction of the $2,718 daily cost of an inpatient stay.[25] To put this in context, these 498 nights provided under brokerage funding could be the equivalent of $1,353,564 spent on inpatient stays. Whilst this is an extreme scenario, even if only 3% of these nights account for an averted inpatient admission there would be cost savings associated with the

use of brokerage money to fund accommodation. In fact, 498 nights of accommodation was equivalent to 12 nights as an inpatient at RPH. The case study below illustrates the impact that accommodation funded through brokerage money can have on patients' ability to access appropriate treatment (Box 10).

Whilst only a small proportion of patients were vaccinated against influenza on discharge from RPH, vaccination was often regarded as clinically inappropriate given the complexity of patients' health conditions. RPH staff have suggested that vaccinations would be better administered outside of the hospital setting, well before the winter period. A separate evaluation of the Winter Demand Reduction Strategy is currently being undertaken by UWA.

Box 10: Impact of Brokerage Funding through the Winter Demand Reduction Strategy

Background

Riley is a middle aged man who had been rough sleeping in bushland for 2-3 years and injects methamphetamine regularly. In May 2018, he presented to RPH ED with severe abdominal pain, his first hospital presentation in three years. He was diagnosed with metastatic bowel cancer and underwent bowel resection with formation of a long-term colostomy. His homeless status was not disclosed or recognised during this 17 day admission and he was discharged to homelessness. Within a week of discharge, he started to present to RPH Social Work because of difficulties in managing his stoma and pain while homeless. Three weeks after the first admission he was readmitted to the surgical unit for a further six days for issues with pain and stoma function but again, his homeless was not recognised. In these two months, Riley spent 23 days as an RPH inpatient at a bed cost of $64,044*.

It was only during his third surgical admission in late July 2018 that his homelessness was recognised and the Homeless Team became involved.

Role of RPH Homeless Team

During the three-day admission in July 2018, the Homeless Team arranged for Riley and his partner to enter temporary accommodation in a backpacker hostel close to RPH, made possible by the brokerage funding. A total of 21 night's accommodation was provided for a cost of $1,502, cheaper than the $2,718 cost of one night in a hospital bed. This allowed Riley to start outpatient palliative chemotherapy while engaging in ongoing casework with the Homeless Team caseworker to find a private rental apartment. The Homeless Team used their brokerage money to assist the couple with the deposit ($740, less than the cost of one ED presentation) to secure this long term accommodation. This transformed Riley from a marginalised to a mainstream patient. His subsequent treatment has been standard outpatient-based chemotherapy for the six months since the July admission. He has had two six-day admissions in this time for cancer related complications. His previous issues of managing his stoma, pain control and low immunity from chemotherapy were resolved by having safe, clean, stable accommodation. As observed by a RPH social worker, *"They were really difficult to work with, but the outcome is apparent now they've got their own flat, they're doing quite well, they're engaging in palliative care."*

Current Health and Housing Situation

Riley continues to receive regular chemotherapy and has now been referred to Palliative Care as his cancer is progressing. He and his partner lost their original rental accommodation but have stayed off the streets, living in a low cost hotel closer to RPH.

*Note: Hospital costs based on the latest IHPA Round 20 figures for the 2015-16 financial year for WA[25]

Photo 13: Homeless Team Nurse on Ward Round

6.3.Homeless Outreach Dual Diagnosis Service (HODDS)

6.3.1. Background to HODDS

The RPH Homeless Team and HHC in conjunction with UWA were awarded a competitive WA Health Research Translation Project 2018 Round 12 grant of ~$250,000, for the pilot funded through HHC and evaluation of the new dual diagnosis service; HODDS. The HODDS pilot is an outreach service that will work with people experiencing homelessness in Perth who have a dual diagnosis of mental health and AOD issues.

Currently in WA, around 70% of rough sleepers are estimated to have both mental health and AOD issues.[35] 'Dual diagnosis' is generally the result of multiple adverse social determinants of health such as childhood trauma or domestic violence and is compounded by the experience of housing instability and homelessness. As shown in Chapter 3, 85% of people seen by the Homeless Team have both mental health and AOD issues. Within the HHC GP practice, only about 15% of their patients with severe mental health illnesses receive any form of specialist mental health care, and this problem is compounded when people have dual diagnosis.

Despite the WA Health Mental Health Commission having oversight of both mental health and AOD services, in reality they remain largely "siloed" despite the high incidence of dual diagnosis issues in our community. This has been exacerbated by high rates of methamphetamine use in WA. Services addressing both issues simultaneously are rare, even within mainstream health services in WA and dual diagnosis patients are commonly "bounced" back and forth between mental health and AOD services without the coordinated approach needed to improve patient outcomes. In the homeless population, the access to mental health and AOD services is poor with no homelessness specific dual diagnosis services in WA until HODDS.

Royal Perth is the hospital most frequently attended by people experiencing homelessness in WA and so it bears much of the burden hospital re-presentations among people with dual diagnosis. At present, no WA inpatient psychiatric unit offers concurrent Addiction Medicine services even though a large majority of intake patients have dual diagnosis. With both fiscal and public health imperatives leading the case, there are good reasons for an intervention that can reduce the burden of this dual diagnosis amongst the homeless community and beyond.

6.3.2. Overview of HODDS

Commencing in February 2019, HODDS staff comprises a 0.5FTE psychiatrist with training in addiction medicine, and a full-time mental health registered nurse. It is integrated with the wider primary care infrastructure and services provided by HHC. The psychiatrist is also employed 0.5FTE by Inner City Community Mental Health, enabling synergies between HODDS and community mental health treatment. This will enable longer-term, continuous care that diverts individuals from EDs. Figure 35 provides an overview of HODDS.

The homelessness sector in Perth has noted over the last 18 months an increase in the number of clients experiencing comorbidity of drugs, alcohol and mental health issues. In 2018, 1 in 10 St Bart's clients accessing our transitional accommodation services were assessed as high suicide risk and more than two thirds of clients had a prior mental health diagnosis. Data are collected on admission and may not provide a true reflection of our clients' risk profile since clients disclose more information over time as trust is established. Intensive case management and better assessment tools are required to manage risk effectively. Access to a specialist psych support team who could visit on site would assist with recovery, prevent escalation of risk, and reduce use of ED. **- John Berger, CEO St Bartholomew's**

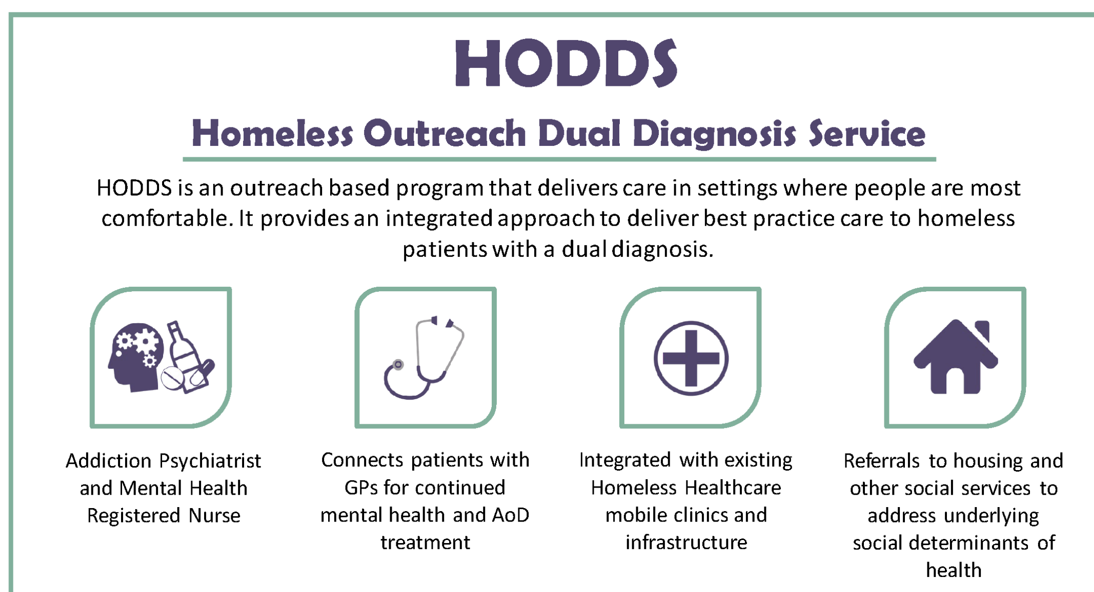


Figure 35: Overview of HODDS

The HODDS approach is coordinated by working within the 11 existing HHC GP clinics. These mobile clinics are provided in settings familiar to individuals experiencing homelessness and promote a seamless spectrum of care between the HHC GP and HODDS. For higher complexity patients, HODDS will manage their dual diagnosis care until stabilised, with GP care for their other issues. For lower

complexity patients, HODDS will assist and advise the GPs to manage their dual diagnosis issues without taking over GP care of the patient. This flexible and integrated model is particularly suitable for this complex, multi-morbid patient population which is centred around providing long-term GP care but with "in-house" access to specialist dual diagnosis care.

The objectives of HODDS are listed in Figure 36 below.

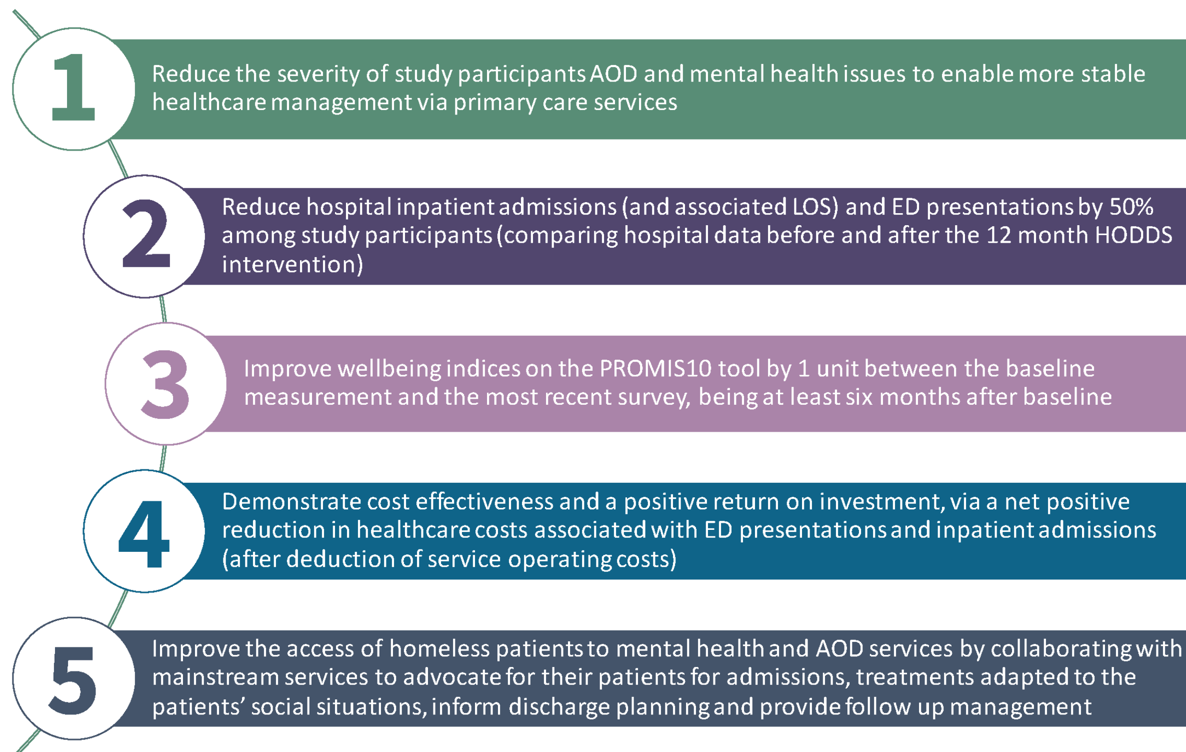


Figure 36: Objectives of HODDS

6.3.3. HODDS and RPH Homeless Team

Whilst this program is based within HHC clinics, it involves RPH in multiple ways. The primary involvement will utilise the well-established collaboration between RPH and HHC, funnelling dual diagnosis patients into HODDS clinics for follow up if they are seen at RPH for either a mental health or AOD issue.

The hospital will also serve as one of the major data sources demonstrating the effectiveness and outcomes of the project, with the evaluation being undertaken by UWA. As ED and inpatient admissions are extremely frequent amongst homeless individuals with dual diagnosis, data from RPH will be used to evaluate any changes associated with support received through HODDS.

Box 11 illustrates a very recent case of a patient brought to the attention of the RPH Homeless Team who will be linked to HODDS.

Box 11: Necessity of a Specialised Homelessness Dual Diagnosis Service

Bradley is a male in his late thirties who experienced childhood abuse, did not complete school and a sustained significant traumatic brain injury as a teenager. His adulthood has been characterised by social instability, contact with the justice system, heavy alcohol abuse and repeated mental health admissions. He has been diagnosed with depression, PTSD and Emotionally Unstable Personality Disorder (EUPD). After many years of instability, he stopped drinking alcohol and entered a stable relationship between 2015 and 2017. However in April 2018, Bradley's fiancé died suddenly and he decompensated severely with grief, drinking heavily and spent most of the subsequent six weeks as an inpatient in a mental health unit. He subsequently went to live with his sister in law but remained grief stricken with heavy ongoing alcohol use. He was unable to engage with psychology services to address his complex grief reaction and was admitted twice to mental health units for a total of 13 days in the second half of 2018. In early January 2019, he entered a transitional accommodation facility but within weeks was re-admitted to a mental health unit because of deteriorating mood, suicidal ideation and heavy drinking. He lost his accommodation place while in the mental health unit and was discharged to rough sleeping. After 10 traumatic days on the streets, during which he was assaulted, he presented to RPH ED seeking accommodation and supports. He readily engaged with the RPH Homeless Team who assisted him to find accommodation in another transitional accommodation facility with mental health supports and provided two nights of backpacker accommodation until a place was available for him.

Bradley is an ideal candidate for HODDS because of his complex mix of childhood abuse, mood disorder, PTSD, EUPD, brain injury and abnormal grief reaction which he "self-medicates" with alcohol to numb his severe psychological pain. The mental health and AOD issues need to be addressed concurrently in a setting of supported accommodation in order to assist him. He will be referred to HODDS once he has entered the transitional accommodation later this week.

6.4. Conclusion

The three initiatives described above are helping the Homeless Team to more effectively serve individuals experiencing homelessness who present to RPH. These projects are underpinned by robust and ongoing data collection and analysis, allowing the new service models to be objectively evaluated.

These targeted initiatives add to the case that the RPH Homeless Team is now nationally and internationally recognised as a highly successful model of healthcare for those experiencing homelessness. In keeping with this recognition it is important to continue developing the effectiveness and capacity of the team, and identifying further service gaps that need to be addressed.

7. Collaborations and Best Practice Exemplar

Despite only being established less than three years ago, there is rapidly growing recognition of the RPH Homeless Team and its work around Australia and internationally. Moreover, the Homeless Team model and its integration with the wider work of HHC is increasingly being referred to as a Best Practice model that can be adapted to other parts of Australia.

This chapter summarises the wider impacts of the Homeless Team as an evidence-based exemplar model of a hospital response to the healthcare needs of people who are homeless; and discusses how the Team is contributing to capacity building around homelessness and homeless health in WA, nationally and internationally.

The chapter is divided into themes as shown in Figure 37.

Figure 37: Overview of RPH Homeless Team Contributions to Evidence and Capacity Building

7.1. Sharing and Replicating the Homeless Team and HHC Model

As the RPH Homeless Team is the first of its kind in Australia, this has placed them in a unique position for others to learn from and replicate their model. In the past seven months, there have been six visits to Perth initiated by healthcare organisations and/or hospitals in other States to observe the work of the RPH Homeless Team and HHC, with a view to adapt the model to their own jurisdictional context (see Figure 38).

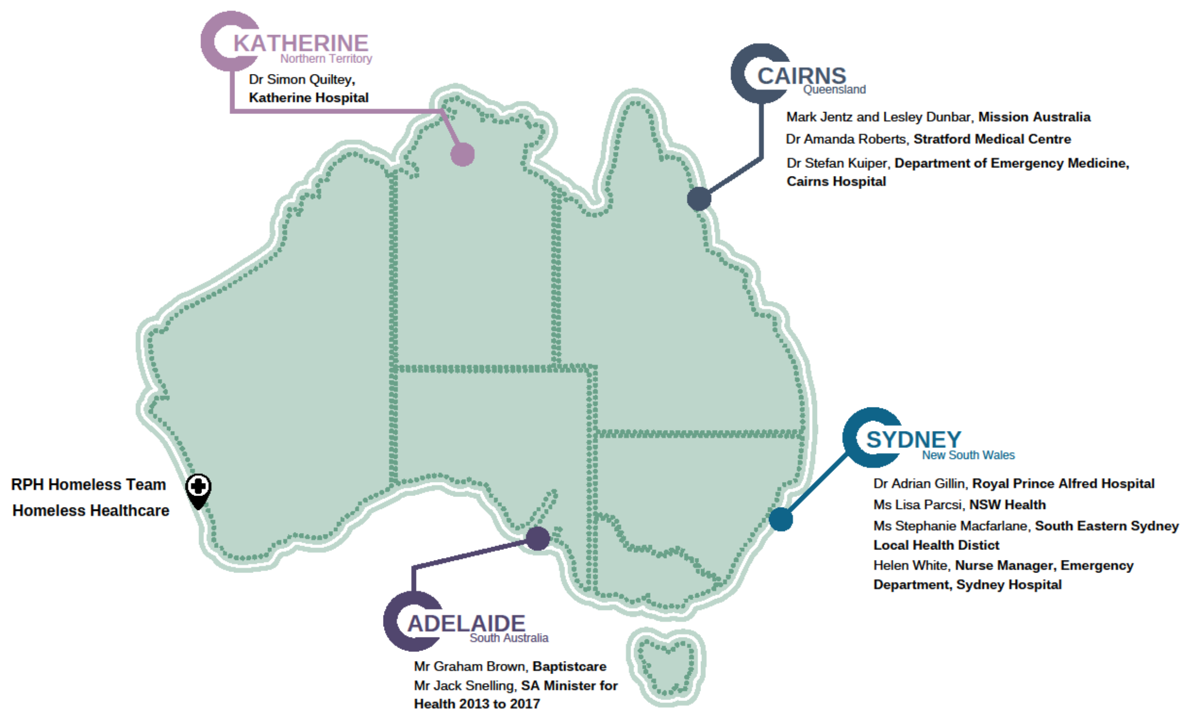


Figure 38: Map of Interstate RPH Homeless Team Collaborations Forged in 2018

The increasing interest from other States and Territories reflects the growing awareness and reputation of the RPH Homeless Team model across Australia. It also demonstrates the willingness of the RPH Homeless Team and HHC to collaborate and support wider capacity building in homeless health by sharing its model and learnings with others. In turn, the reflections and observations made by those visiting the Team in Perth have provided valuable feedback for the RPH Homeless Team and HHC, and provide an independent spotlight on the strengths of the WA model and its adaptability to other hospital, settings and geographical contexts.

The subsections below outline inter-state collaborations and information sharing that has occurred in the last 12 months, and includes some of the insights proffered by those working to reduce health disparities among people who are homeless in other jurisdictions.

7.1.1. Queensland

There are a number of organisations actively working to reduce health disparities among people who are homeless in Cairns, and a strengthening collaboration has been forged with the RPH Homeless Team and HHC. In April 2018, Dr Stafford was invited to speak as part of a Homelessness and Health Forum in Cairns on the RPH Homeless Team model and learnings from the WA experience. The forum was hosted by Mission Australia and attended by Cairns Base Hospital staff members, a wide range of homelessness services and Stratford Medical Centre staff which has started to provide specialised homeless medicine GP clinics in Cairns. A review of the resources present in Cairns showed that they had the necessary elements in place to establish a Homeless Team at Cairns Base Hospital. In July 2018, two representatives from the leading community agency, Mission Australia, and four from the Stratford Medical Centre visited Perth to observe the RPH Homeless team in action over three days.

Following their visit, Mark Jentz and Leslie Dunbar from Mission Australia made the following observations:

> *Since 2016 when Mission's Going Places Street to Home Program was funded to add nursing staff to its program it has become evident that integrating homeless and Health services was the key to having true success in the homeless space as each issue, be it health or homelessness, directly influences the other. We were fortunate to see Dr Amanda Stafford present at a homeless conference in 2017 on the Royal Perth Hospital's Homeless Team and our programs have been in contact ever since. In 2018 we were able to visit and witness the Homeless Team in action which was very beneficial and provided us with the guidance and support we needed to engage our Hospital in regards to establishing a similar Homeless Team in the Cairns Base Hospital. Mission Australia's plan is to support the Cairns Base Hospital to establish their own Homeless Team, similar to the Royal Perth Hospital's Homeless Team, so that we can provide the aftercare and ongoing support that homeless patients require and are entitled to. We aim to achieve long term housing and health outcomes thereby benefiting the hospital by supporting it to decrease representations and readmissions.* – **Mark Jentz, Program Manager, Street to Home, Mission Australia.**

> *After hearing Dr Amanda Stafford's presentation at the Homelessness Summit in Melbourne in 2017, Going Places was inspired to facilitate a Health and Homeless forum which brought together a wide range of professionals from within both sectors. Going Places Homeless Program is unique in that we have incorporated a nursing team within the housing program which provides our clients with holistic support to sustain their tenancies. One of our key strategies is to better integrate with the tertiary hospital in Cairns in an attempt to provide long term improvements to health outcomes, to reduce the number of client presentations to the emergency department, to improve client health literacy and encourage independence in personal health decisions. Being able to visit the RPH Homeless Team and Homeless Healthcare enabled us to see this type of integrated care in action.* – **Leslie Dunbar, Drug and Alcohol CN, Street to Home, Mission Australia.**

In January 2019, the future Clinical Lead for the Cairns Base Hospital Homeless Team, ED Physician Dr Stefan Kuiper, visited the RPH Homeless Team. Following the visit Dr Stefan Kuiper reflected that:

> *The Homeless Team at Royal Perth Hospital provides an outstanding service, which serves as an example to the rest of Australia of what can be achieved. They have used the model based of the Pathways Program in the UK, and expertly crafted it to suit the Australian health care environment. Too often around Australia, patients are discharged from the hospital and told to fill a prescription they don't have the money to pay for, with instructions to follow up with a GP they don't have and are then returned back to sleeping rough on the street which often caused their illness in the first place. This leads to the revolving door for these patients. They frequently represent to hospital as the only place they are able to go, where only their medical problem is addressed, and when discharged back to the street they immediately become unwell again. This leads to multiple representations to the Emergency Department and often expensive inpatient admissions. Not only is this a great cost to the public health service, but more importantly causes much suffering to the patient. The Homeless Team addresses the root cause of these patient's problems.* **– Dr Stefan Kuiper, Staff Specialist Emergency Physician, Cairns Hospital Emergency Department**

7.1.2. New South Wales

In early November 2018, HHC, the Homeless Team and UWA hosted a four day visit from Stephanie MacFarlane, Homelessness Health Program Manager from the South Eastern Sydney Local Health District, so she could observe the work of the Homeless Team and HHC and to determine what learnings could be applied in the NSW health context. She described the cooperation and integration she observed between hospital, primary care and homelessness services as a stand out attribute of the work of the RPH Homeless Team and HHC in WA that other states such as NSW would benefit from. This is reflected in the following quote.

> *What we know from our NSW experience is that often our patients experiencing homelessness present to the ED or are admitted- however upon discharge they are given a discharge summary and instructions to follow up at their GP (where often there is none) or are referred to one of our homelessness health specialised clinics and services- however mostly there is little or no integration among these care providers so follow up runs the risk of being patchy and is often very separate to the care provided in the hospital. The RPH team effectively cuts out the middle man so that the care and support can be streamlined and holistic.* - **Stephanie Macfarlane Homelessness Health Program Manager, SESLHD**

While in Perth, Stephanie MacFarlane participated in discussions around instigating a Medical Recovery Care model in Perth, and was able to share her insights from the local Tierney House respite care model that is part of St Vincent's Hospital Sydney:

> *We know that hospitals can be a terrifying, traumatic and overwhelming place for people who are homeless- hence the high numbers of discharge and re-presentation rates. The success of the medical respite model is built significantly on the fact that it is not in a hospital (but still with access to medical care) - therefore the traumatic aspect is significantly reduced.* **– Stephanie Macfarlane, Homelessness Health Program Manager, SESLHD**

Subsequently in Sydney, Assoc/Prof Wood from UWA spoke about Perth's integrated model of homeless healthcare and the RPH Homeless Team at the Homelessness and Health Forum hosted by SESLHD Priority Populations Unit, and attended by over 100 people. This coincided with the launch of the SESLHD Homelessness Health Strategy 2018-2021, an innovative example of a comprehensive strategic approach to addressing homelessness and its health ramifications at the local area health level.

There is also interest from the Royal Prince Alfred Hospital (RPA) in Sydney in adopting a Homeless Team model. In late November 2018, Dr Adrian Gillin from the RPA Department of Renal Medicine and Lisa Parcsi from Sydney Local Health District (NSW Health) spent three days in Perth with the RPH Homeless Team, HHC and the UWA research team.

> *One of the best advantages that we witnessed in Perth was the comprehensive establishment of Homelessness Healthcare and Dr Andrew Davies. This service has evolved since 2007 and continues to expand to meet the service needs of Perth's homeless population. We attended the Street van with the nurses, we attended clinics at RUAH, we attended the main centre in Leederville, we were told of the After Hours service visiting those already housed under the 50 lives/50 homes plan and heard of the plan for a medical respite post-discharge service. This integration of services clearly puts the homeless at the centre of care. The addition of the hospital in-reach is a natural and necessary addition. I wish there was an ability to replicate the RPH service for the homeless in*

Sydney Local Health District. It is going to takes years to catch up. The Perth model is an exemplar for homeless health services in Australia and also overseas as evident by the invitation to present their work at the upcoming Pathways Homelessness health conference. - **Dr Adrian Gillin, Royal Prince Alfred Hospital, Sydney**

The South Sydney Eye Hospital is already piloting an initiative in ED to improve discharge planning and continuity of care for patients who are homeless, and has drawn on the published reports and papers relating to the work of the Homeless Team and HHC to inform this and garner executive support. The HOPE team became aware of the work of the RPH Homeless Team through published papers and the first evaluation report.

SSEH ED commenced last year our own project HOPE (Homelessness Opportunities for Presentations to Emergency) and we are currently building a rich data profile of Homeless presentations. We look toward the learnings and experience of the leading work of the Homeless Team in WA which has shown how homeless health services can make a difference. Collaboration between hospitals with homeless populations enables the sharing of ideas and experiences and ways of capturing data to measure impact. **– Helen White, Chief Nurse Manager, Sydney Hospital and Sydney Eye Hospital**

7.1.3. Northern Territory

In November 2018, Dr Simon Quilty from Katherine Hospital in the Northern Territory met with representatives from the RPH Homeless Team and UWA Research Team to discuss cross-institution collaboration. The meeting allowed for sharing of learnings between and across the two settings, with plans for data-sharing and ongoing collaborations.

Dr Quilty plays a lead role in the Katherine Individual Support Program (KISP)[36], an innovative collaborative program between Wurli-Wurlinjang Health Service, Katherine Hospital and Kalano Community Association. People who attend Katherine Hospital ED frequently have very high rates of homelessness, poor health and AOD issues. There are significant barriers to accessing holistic, primary care due to the extreme social disadvantages faced by this group. The KISP program aims to provide rough sleepers with chronic health conditions individualised case management and support (e.g. access to housing, AOD support).[37]

The Katherine region in remote NT is plagued with homelessness with the highest rates in the nation, and this great challenge, representing people still displaced by colonisation on their own land, is what flavours so many aspects of patient care at Katherine Hospital. It was exciting for our team working on developing a program for homeless people within our hospital setting to discover the work done by the RPH Homelessness Team, and to recognise that what we considered essential - community, collaboration and covering a broad range of disciplines and service providers - was very similar to the approach that we have developed organically from within the Katherine community. The team at RPH and UWA made very clear in their excellent report the need to collaborate beyond RPH and have been true to this in their generous assistance and support, both academic and strategic, to help a small and very remote community many thousands of kilometres away and across state borders to get a similar program on its feet. **– Dr Simon Quilty, Katherine District Hospital**

7.1.4. South Australia

In February 2019, Mr Graham Brown (CEO, Baptistcare) and Mr Jack Snelling (former South Australia Health Minister, 2013-2017) visited Perth to see how the Homeless Team and HHC. Baptistcare has a bequest that will enable the establishment of an integrated health centre for people who are homeless in the Adelaide CBD and is very keen to incorporate learnings and ideas from the Perth approach. As observed by the former SA Health Minister:

> *Homeless Healthcare uses a best-practice multi-disciplinary approach to provide primary healthcare to Perth's most marginalised. Similar models will be critical to breaking the revolving-door of hospital presentations overwhelming emergency departments around Australia. Patching someone up, without addressing the root causes of poor health, isn't a good use of scarce health resources and it certainly isn't good medicine.* **- The Hon Jack Snelling, SA Health Minister 2013-2017**

The first UWA evaluation report for the RPH Homeless Team and the UWA evaluation report on Homeless Healthcare were subsequently taken by BaptistCare to a meeting with the current SA Health Minister in February.

7.2. International Collaborations and Opportunities

From the outset, HHC and the RPH Homeless Team have been intentional in basing their work on international evidence for best practice healthcare for people experiencing homelessness. Their model has drawn particularly on the work of Dr Jim O'Connell from Boston Health Care for the Homeless Program, and Dr Nigel Hewett from Pathway UK, both of whom are internationally respected for their pioneering and innovative efforts to improve health and social system responses to the enormous health disparities experienced by people who are homeless. Over the past 18 months, these collaborations with the UK and Boston have been strengthened through opportunities with UWA to bring both of these international experts to Perth as visiting fellows (see Figure 39 for brief biographies).

Dr Nigel Hewett OBE - Pathway UK
Cockell Research Collaboration Award - July 2017

Dr Hewett is a GP who has worked with homeless and other marginalised populations for over 25 years. He is a world leader in research for homeless people and currently leads a research collaborative which is publishing a review of the international literature on practical responses to the complex needs of homeless people.

Dr Jim O'Connell - Boston Health Care for the Homeless Program
Raine/Forrest Visiting Fellow - November 2018

Dr O'Connell established America's first medical respite centre for homeless people in 1985, and has 30+ years of experience providing medical services to Boston's rough sleepers. Dr. O'Connell has been extensively involved in research into homelessness, and is primary author on over 20 publications in the field; his work is widely cited and drawn upon internationally.

Figure 39: International Visiting Fellows Brief Biographies

A key part of Dr O'Connell's visit to Perth in November 2018 as a Raine/Forrest Visiting Fellow was his official Raine lecture at the Harry Perkins Institute that was widely attended. The event organiser made the following observation:

> *It was clear from the Raine Lecture that there is a lot of public/community support to pursue a medical respite model in Perth for people who are homeless, which will save hospitals and the healthcare system millions of dollars (and potentially many lives).* ***- Dr Amanda Cleaver, Director of Raine Medical Research Foundation***

The visits of respected homelessness medicine pioneers, Dr O'Connell and Dr Hewett, have emphasised the benefits of sharing their respective learnings and insights with health and homelessness services and policy makers in WA. It has been telling that both have described the work of the Homeless Team and HHC as now itself being at the forefront of international best practice, with other countries interested in learning from the RPH Homeless Team model as reflected in this quote by Dr O'Connell below:

> *I've been astonished by how much is going on here, how much collaboration, how many innovations are going on to improve the health and quality of life of people who are homeless. Joining inpatient rounds with Dr Stafford and Dr Davies at Royal Perth Hospital, I could see how homeless folks when they're in the hospital now have really caring doctors and nurses and social workers who look out for them and help to plan good discharge. There is then the opportunity for patient follow up with the GPs and nurse practitioners at the various community based clinics that Homeless Healthcare runs. I also got to go out on the streets with the Street Health team that is working with community case workers to take care of people directly on the streets. Then for people who have been recently housed through 50 Lives 50 Homes, I had the chance to go out with the After Hours team got to watch these remarkable clinicians and community case workers provide support to formerly homeless people in what I think is an extraordinary way.* ***- Dr Jim O'Connell, Boston Health Care for the Homeless Program***

However, he noted that Perth is currently missing one critical piece in its provision of healthcare services to people experiencing homelessness:

> *What I found in Perth has been really extraordinary and you have the foundation I think for everything that I think that we dream of having. I would say that what's missing, and most of the folks I talked to have highlighted that, is a medical recovery centre where people could go between the hospital and being back on the streets or in the shelters. I think it would be a remarkable addition to what you already have here.* ***- Dr Jim O'Connell, Boston Health Care for the Homeless Program***

7.3. Contributions to Wider Ending of Homelessness in WA

Over the past couple of years, there has been a shift in attitude towards homelessness and recognition that more needs to be done to end homelessness in WA. New initiatives include:

- The Western Australian Alliance to End Homelessness (WAAEH) that brings together a wide cross-section of community services and stakeholders. The WAAEH 10 year strategic plan to end homelessness in Western Australia was released in April 2018, and the Homeless Team has participated in a number of forums to action this Strategy.[38]

- In October 2018, the Department of Communities announced a new 10 year homelessness strategy, with widespread consultations across WA.
- The City of Perth's Homeless Sector Review which noted that the Housing First approach is a sound economic investment for government, with potential to reduce the burden born by the health system as a result of prolonged homelessness in WA.[39]

These collaborations between state government, local government and community services marks a new era of partnership across sectors to end homelessness in metropolitan Perth within 10 years.

There is wide respect in the health and homelessness sectors for the innovative work of the Homeless Team and HHC, and of the integral role that they have to play in wider efforts to address homelessness in WA. This is reflected in invited roles on a number of key committees and working groups, and their active participation in high level strategic and policy forums on homelessness over the last year.

7.3.1. Involvement in Committees and Working Groups

Dr Stafford serves on key committees and working groups throughout the homelessness sector in Perth (see Figure 40). The RPH Homeless Team and HHC (through Dr Andrew Davies) have played an integral part in the 50 Lives 50 Homes Rough Sleepers Working Group and Steering Committee since 2016.[20] Through its role in these committees, the Homeless Team is able bring a strong health focus to the table, both for policy development and practical issues in gaining and retaining housing for the most vulnerable rough sleepers in Perth. As noted by the 50 Lives 50 Homes Project Manager:

> *The RPH Homeless Team is very active in the 50 Lives 50 Homes rough sleepers working group and there is enormous mutual benefit for both the hospital and for the homeless sector in Perth. Some of the most vulnerable rough sleepers in Perth have been brought to our attention by the RPH Homeless Team, and we have been able to prioritise them for support and housing* - **50 Lives 50 Homes Project Manager**

Figure 40: RPH Homeless Team Involvement in Committees and Groups Related to Homelessness

Dr Stafford is also an invited member of the City Homelessness Framework Committee in 2018 formed by the City of Perth under the joint leadership of John Carey, MLA, Member for Perth and Gaye McMath, the City of Perth Deputy Chair Commissioner to review and coordinate homelessness services in the Perth CBD. This active committee is actively promoting Housing First and other long term solutions over short term measures such as food distribution and is also looking at potential accommodation opportunities within the CBD.

More recently, as an action arising from the 2016 Clinical Senate on Homelessness, a request was made to the Minister for Community Services and Minister for Health for a nominee from WA Health to be included on the WA Council on Homelessness (WACH).[34] The WACH committee was established by the Minister for Child Protection as an external advisory body to the Government on homeless matters, but did not initially include a representative from WA Health. Cabinet endorsed the addition of Dr Stafford as the WA Health nominee. As noted in the August 2018 report on implementation of Clinical Senate recommendations "*through membership on WACH, the WA health system will have an avenue to contribute to state planning for homelessness, provide advice to the government on current and emerging issues affecting homelessness and to ensure health services are connected with other government and non-government services*".[34]

In June 2017, the WA Government announced the Sustainable Health Review, which commissioned a panel to advise the government on developing a more sustainable health system. The interim Sustainable Health Review Report[14] was released in February 2018 after over 300 public submissions and 19 forums across the state. The panel's findings included the need for more consumer focused models of care, improved integration and continuity of care and the imperative to reduce health inequalities experienced by vulnerable population groups.[14] Furthermore, the panel called for a more efficient use of resources by providing more care in the community, specifically exploring different models for reducing ED admissions.[14]

Dr Stafford actively participated in this process as a member of the Sustainable Health Review panel, appointed on the basis of her experience in working with marginalised populations and ED frequent presenters to reduce their impact on health costs. This has involved developing innovative programs to divert these high cost patients to more appropriate and effective care in community and outpatient settings.

7.3.2. Policy Input

Beyond being involved in various working group and steering committees, the RPH Homeless Team has contributed to the development of policy and practice across the homelessness sector. One recent example of influencing national policy and practice was Dr Stafford attending the recent Community Solutions two-day workshop held in Perth on 11-12th February 2019. This has kick-started work to build a real time "By Name List" of all rough sleepers in Perth and Fremantle CBDs as part of the Australian Alliance to End Homelessness's national homelessness strategy. The availability of detailed information on all rough sleepers and their housing and support needs is a vital step to systematically reducing rough sleeping to zero, as has been achieved in over 70 communities in the US and Canada using this approach.[40]

Photo 14: Dr Stafford and WA Homeless Sector Representatives Participating in Community Solutions Workshop

7.4. *Capacity Building around Homelessness and Health within WA*

The RPH Homeless Team and HHC have been active in supporting wider examples of capacity building and change to improve the health of people experiencing homelessness. Two ways in which they have been able to influence the WA health sector more broadly is through the inaugural homelessness and health forum and the ongoing support of medical student placements.

7.4.1. Forum on Homelessness and Health

The RPH Homeless Team, HHC and UWA co-hosted the WA inaugural **Forum on Homelessness and Health** on the 9th of November 2018. The forum was timed to coincide with Dr Jim O'Connell's visit to Perth as a Raine/Forrest Visiting Fellow and was supported by The Raine Foundation, The Public Policy Institute UWA, HHC and the RPH Homeless Team.

Photo 15: Attendees at the Forum on Health and Homelessness

The forum was opened by the Honourable Minister Simone McGurk and had over 100 attendees across government and non-government sectors. There was strong representation at the forum from a breadth of services and areas within WA Health, including Graylands Hospital, SCGH, RPH, MCOT, WAPHA and SSJG. It should be noted, that there was also strong representation from other government departments (i.e. Department of Communities) and the non-for profit sector (i.e. Ruah, St Barts, Cancer Council).

In addition to Dr O'Connell, speakers included Dr Amanda Stafford from the RPH Homeless Team on current hospital trends in WA for people experiencing homelessness, Dr Andrew Davies from HHC on a new dual diagnosis pilot service (see Chapter 6) and Dr Hannah Seymour from the Sustainable Health Review discussing the implications the Review for the health of people experiencing homelessness.

The forum concluded with Assoc/Prof Wood from UWA facilitating a discussion to identify and discuss gaps in the health care system for people experiencing homelessness in Perth. The lived experience panel was the first of its kind at a homelessness forum in WA and saw three people shared their suggestions for better dealing with the health and related needs of people who are homeless.

Photo 16: Panel Discussion at Forum on Homelessness and Health, Including Lived Experience Representatives

7.4.2. Medical Student and Registrar Placements

As part of the Homeless Team's collaboration with HHC, they are able to supervise and support the future members of the WA medical workforce through providing medical student and GP registrar placements. Over the last three years, HHC has provided placements to 35 medical students and three registrars, all having the opportunity to work with the Homeless Team at RPH. With the Sustainable Health Review[14] highlighting the need to improve the health of vulnerable population groups, student and registrar exposure to the work of that the Homeless Team provides a valuable contribution to the WA Health Sector.

7.5. Dissemination of Homeless Team Impact and Learnings

From the outset the RPH Homeless Team has been generous in sharing its model and experiences, and has a strong commitment to robust evaluation so that impacts can be measured and areas for service improvement identified. Its collaboration with UWA has amplified opportunities for the dissemination of findings and learnings, encompassing published evaluation reports, peer-reviewed journal papers, conference presentations and media.

The emphasis on evaluation and research ensures that the RPH Homeless Team is contributing significantly to the development of an Australian evidence base around the best-practise provision of healthcare for people who are homeless. Dissemination of this evidence through evaluation reports and papers has been invaluable for other health services in Australia, and we see the integrated model of care being implemented by the RPH Homeless Team serves as a leading example to follow.
- Stephanie Macfarlane Homelessness Health Program Manager, SESLHD

7.5.1. Peer Reviewed Papers

Communicating the impact and learnings of the Homeless Team and HHC has become a key focus through the academic partnership with UWA. The three published papers in Table 16 were invited contributions to the journals, reflecting the growing awareness of the homeless healthcare work in WA and its strong emphasis on robust research and evaluation. Table 16 provides a brief overview of each of these three papers.

Table 16: Summary of Peer Reviewed Journal Articles to Date

Paper	Overview
Wood L, Vallesi S, Stafford A, Davies A, Cumming C. Hospital collaboration with a Housing First program to improve health outcomes for people experiencing homelessness. Housing, Care and Support. 2019.[41] *Downloads: 48*	This mixed methods paper discussed the emerging findings between RPH and HHC as collaborators for improving homeless health. Findings discuss how the collaboration has facilitated hospital identification and referral of vulnerable rough sleepers to the Housing First project and connect those housed to a GP and after hours nursing.
Stafford A, Wood L. Tackling health disparities for people who are homeless? Start with social determinants. International Journal of Environmental Research and Public Health. 2017.[42] *Citations: 3* *Views: 2,762* *Downloads: 4,279*	This paper presents three case histories of homeless patients seen at an inner city public hospital in Perth, Western Australia. The case histories illustrate the interplay of social determinants of health in homelessness that help explain the high level of hospital usage by rough sleepers. The cumulative healthcare costs for the three individuals over a 33 months period were substantial. Hospital attendance plummeted even in the short-term when housing needs were addressed
Davies A, Wood LJ. Homeless health care: meeting the challenges of providing primary care. The Medical Journal of Australia. 2018 [1] *Citations: 2* *Downloads: Unknown*	This narrative review discussed the complexities of people experiencing homelessness and are unaffiliated with any formal primary care, the barriers preventing them from accessing primary care and the key solutions such as prioritising stable housing, continuity of healthcare, specialised homeless healthcare and hospital in-reach with planned discharges and coordinate care.

** Note: statistics were correct as of 18 Feb 2019.*

These publications have led to enquiries from other parts of Australia and other countries (including UK and Canada) regarding the work and impact of the RPH Homeless Team, and keen interest in its rigorous evaluation framework.

7.5.2. Invited State, National and International Presentations

In addition to publishing in peer-reviewed literature, another method of disseminating findings and information about the Homeless Team is through local, national and international presentations.

Invited National Presentations

As recognition of the RPH Homeless Team grows, the number of national invited presentations also grows. The below represent presentations where the team have been invited to give a presentation on the work of the Homeless Team:

- *Health and Homelessness Forum*. Dr Amanda Stafford, Cairns, 27th April 2018
- *Meeting Wider Needs in a Mental Health Crisis* (panel discussion). Australasian College for Emergency Medicine Mental Health in the Emergency Department Summit. Dr Amanda Stafford. Melbourne, 16 October 2018.
- *Homelessness and health – integration, collaboration and continuity of care.* Research to Practice Forum on Homelessness and Health (hosted by the Populations Priority Unit at South Eastern Sydney Local Health District). Assoc/Prof Lisa Wood, Sydney, 27 November 2018.
- *Homelessness and health – integration, collaboration and continuity of care.* Kirketon Road Centre. Assoc/Prof Lisa Wood, Sydney, 28 November 2018.

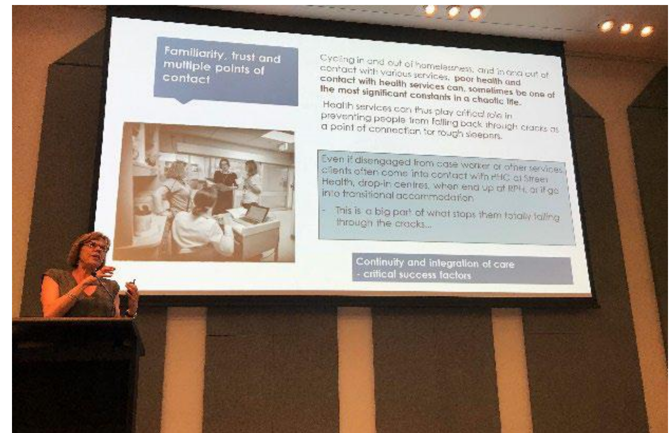


Photo 17: Assoc/Prof Wood Presenting at the Research to Practice Forum, Sydney

National Conference Presentations

The team have presented at a number of different national conferences across Australia in 2018. The themes of these conferences range from GP specific, to broad public health issues and research translation conferences. Having a presence across a broad range of settings enables a wide dissemination of learnings, raising the profile of the Homeless Team across health professional fields all across Australia.

- *How GPs can reduce high hospitalisation rates of vulnerable population groups* - General Practice Reducing Hospitalisation for Homeless People. Dr Andrew Davies, RACGP GP 18 Conference, Gold Coast. 11-13 October 2018.
- *Accelerating Evidence into Policy and Practice – lessons from homelessness and health*. Ms Shannen Vallesi. Australian Public Health Conference, Cairns. 27 September 2018.
- *Wicked Problems and Messy Data: Learnings from knowledge mobilisation around homelessness.* Assoc/Prof Lisa Wood. Sax Institute Knowledge Mobilisation Conference, Sydney. 5 July 2018.

Forthcoming International Presentations

In the coming months, representatives from the RPH Homeless Team and the UWA Research Team will be travelling to the UK to present learnings from the Perth experience at the annual Pathways from Homelessness Forum:

- *A Week in 15 Minutes: The Perth Homelessness Collaboration.* Dr Amanda Stafford. Pathways from Homelessness, London, UK. 13-14 March 2019.
- *Housing First to a pathway to improved health – learnings from Australia.* Ms Shannen Vallesi and Assoc/Prof Lisa Wood. Pathways from Homelessness, London, UK. 13-14 March 2019.
- *Finding Funding for Homelessness Programs: Target the Head, Not the Heart.* Dr Amanda Stafford and Assoc/Prof Lisa Wood. Pathways from Homelessness, London, UK. 13-14 March 2019.
- *Housing First and health service evaluations; Wicked problems, messy data and knowledge mobilisation.* Ms Shannen Vallesi and Lisa Wood. Pathways from Homelessness, London, UK. 13-14 March 2019.

7.5.3. Media Awareness and Dissemination Relating to Homeless Team

A media narrative in 2017 became an important avenue for raising the profile of the RPH Homeless Team and was integral in securing funding to continue HHC's Street Health Service when a philanthropist heard on ABC Radio about its imminent funding void.

There have been several news and media stories in the last six months that have referred to the work of the RPH Homeless Team (see Table 17).

Reflected in the recent Croakey article, the RPH Homeless Team is bringing about change across 'crisis carousel' that often exists for patients who are homeless:

> *The creation of a specialist Homeless Team at the Royal Perth Hospital is bringing dramatic changes to the health and wellbeing of homeless people who have traditionally been part of a "crisis carousel" in the health system, particularly in hospital emergency departments. A national summit called by the Australasian College for Emergency Medicine (ACEM) heard this week that the Homeless Team's work not only leads directly to big reductions in emergency department presentations, but also addresses some harsh or misguided attitudes towards homeless people among "frustrated" hospital staff.* **– Marie McInerney, Health Journalist, Croakey**

Table 17: Summary of RPH Homeless Team Media

Title	Details
Helping homeless people get healthy - Interview with Dr Wood and Dr Davies	Life Matters - Radio National 8 February 2019 https://www.abc.net.au/radionational/programs/lifematters/life-matters-08.02.2019/10792832
Curbing the revolving hospital door for homeless patients	University News 17 December 2018 http://www.news.uwa.edu.au/2018121711174/curbing-revolving-hospital-door-homeless-patients
A partnership between Royal Perth Hospital and homeless health services is having an impact	6PR News announcement 9am News 17 December 18
Hospital discharges to 'no fixed address' – here's a much better way	The Conversation 14 November 2018 https://theconversation.com/hospital-discharges-to-no-fixed-address-heres-a-much-better-way-106602
Compassion and effective care	The West Australian 5 November 2018 https://thewest.com.au/lifestyle/health-wellbeing/compassion-and-effective-care-ng-b88967064z
When hospitals strive to address homelessness, good things can happen	Croakey 18 October 2018 https://croakey.org/when-hospitals-strive-to-address-homelessness-good-things-can-happen/
"Accidental" GP helping the homeless	Medical Journal of Australia 17 September 2018 https://www.mja.com.au/journal/2018/209/6/accidental-gp-helping-homeless

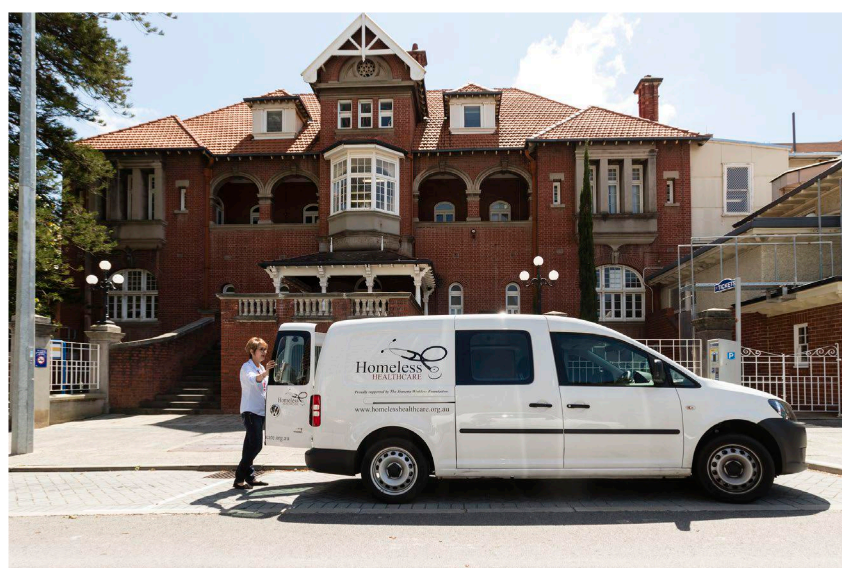
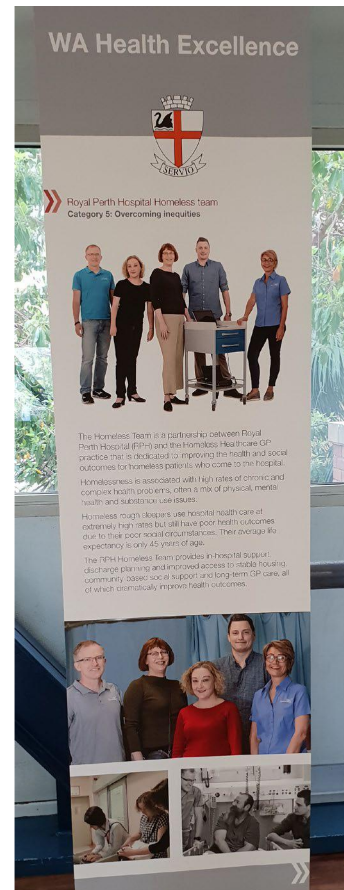


Photo 18: Homeless Healthcare Nurse Arriving at RPH

7.5.4. Awards and Recognitions



Since the RPH Homeless Team's inception in mid-2016, they have been nominated for numerous awards:

- In 2016 and 2018, the RPH Homeless Team were finalists in the WA Health Excellence Awards in the Overcoming Inequities category;
- In 2018, Dr Andrew Davies was awarded two awards by the Health Consumers' Council (WA):
  - The 2018 Health Professional Award for demonstrating excellence in patient care. The Award recognises health professionals who demonstrate ongoing commitment to improving health outcomes and/or the patient experience.
  - The Rosemary Caithness Award to acknowledge outstanding service to health consumers.
- The Public Health Association (WA branch) awarded the Policy and Research Translation Award 2018 to the UWA Home2Health Research Team for their collaborative work with the Homeless Team and HHC.

The robust evaluation underpinning the work of the RPH Homeless Team is increasingly being recognised as demonstrable public health impacts.

> *Home2Health [UWA] has been proactive in leading and collaborating with other groups to demonstrate the massive health, human and economic costs to society of homelessness; their work highlights the need to see homelessness as a preventable public health issue. With growing pressure across Australia to reduce the demand on hospital Emergency Departments, the team has worked with Royal Perth Hospital to evaluate the impact of its Homeless Team - their research shows that connecting people to housing and support can significantly reduce hospital admissions. This evidence has been powerful, with the RPH Homeless Team recently selected as finalist in the WA Health Excellence Awards.* - **Terry Slevin, CEO, Public Health Association of Australia, 17 October 2018**

7.6. Conclusion

The work in Perth has now garnered significant appeal nationally as a flagship homelessness health service and is viewed as a model to replicate. Whilst RPH and HHC still feel there is much progress to be made in the Perth scene, they see great benefit in extending their practice across the country. Over the course of 2019, the RPH Homeless Team will continue to collaborate with HHC and UWA locally to implement and improve its best practice model of care for Perth's homeless population. In addition, learnings from around the world will continue to form a key part of the progression of the interventions and strategies used, and with evaluation these will be passed on to others. The high level of interest seen nationally and internationally in tackling the issue of homelessness foreshadows an important ongoing role for the RPH Homeless Team in this domain.

8. Conclusion

The Royal Perth Hospital Homeless Team is an innovative service that seeks to meet the healthcare needs of people experiencing homelessness in a hospital setting while connecting them to a GP and assisting them to access housing and other supports to prevent further readmission. Although the physical delivery of healthcare is the entry point, the Homeless Team recognises that the causes of both homelessness and associated poor health are multifactorial and that the greatest benefit are found in multi-disciplinary solutions which link patients to community services, primary care and vitally, stable housing. In the two and a half years since its inception, the RPH Homeless Team has become widely regarded as the best practice model in Australia of in-reach care for patients in hospital who are experiencing homelessness and has formed collaborations with interstate hospitals seeking guidance in establishing a similar service.

This second evaluation report examines the strengthening and expansion of the RPH Homeless Team subsequent to publication of the first evaluation report in May 2018. This report provides an overview of the model of care and scope of service delivery provided by team. The demographic profile and complex health needs of the Homeless Team patients are described, as is the significant cost to the health system through the frequent use of hospital healthcare services. It describes the changes seen in these parameters when homeless patients in hospital are supported by the Homeless Team and their underlying social issues are recognised and addressed.

EDs are increasingly strained across Australia and there is urgent need for innovative ways to address the high rates of ED presentations among people who are homeless. Over two and a half years, Royal Perth Hospital's Homeless Team has demonstrated how a hospital can break the cycle of homeless people presenting to emergency departments. Most EDs are only resourced to respond to immediate medical issues, with homeless people then discharged back to the streets. The UWA evaluation shows that tailored care and linkages with GPs and follow up care in the community is reducing ED re-presentations and lengthy inpatient admissions. The homeless team has been proactive in connecting rough sleepers with stable housing and support, and once housed, other health and social issues can be addressed. This is a program that needs recurrent funding and should be rolled out across Australia - **Australasian College for Emergency Medicine**

As shown in this report, there is a continual deterioration in health the longer people are homeless, with ED presentations and inpatient admissions on an upward trajectory for the cohort in the three years prior to first contact with the Homeless Team. Given the complex multi-morbidities and psycho-social issues among rough sleepers, the international literature is cautionary about the likelihood of early reductions in hospital use following interventions with homeless patients, as there can be unravelling of multiple health needs and previous prevention opportunities have often been lost. It is compelling therefore to see the significant reductions in ED presentations and inpatient admissions among patients with six and twelve months follow up data after first contact with the Team. These reductions equate to significant cost savings and freeing up of resources for the EMHS. The

reduced ED presentations and inpatient bed days observed for the cohort with 12 months of follow up data equated to $4.6 million in one year, which when compared to the average operating cost for the Team of around $500 000/year is equivalent to a return on investment of $9 for every $1 spent. Other significant findings included a remarkable decline in the proportion of homeless patients in the top 10 most frequent ED presenters from 80% in 2017 to 30% in 2018.

The report also describes several innovative initiatives to address unmet needs that contribute to the high rates of hospitalisation among people who are homeless in Perth. The recently commenced HODDS service that operates under the Homeless Healthcare umbrella is one example of this, and will assist homeless patients with dual mental health and substance use diagnoses. This will enhance the care the RPH Homeless Team can deliver to patients. Funding provided through the Winter Demand Reduction Strategy over the winter of 2018 markedly enhanced the Homeless Team's effectiveness via increased staff hours and flexible brokerage money which improved discharge planning for homeless patients during the most inhospitable season of the year. So many of the drivers of hospitalisation are related to lack of housing and access to support services (and indeed, sometimes lack of access to fundamentals such as photo ID or a Medicare card), and the Team's caseworker is an invaluable asset in assisting patients to find accommodation and support options, with data demonstrating that this is assisting to reduce representations and get patients on to a pathway out of homelessness. This position only has interim funding however, and recurrent funding for this position and the wider team would enable the impacts shown in this second evaluation report to be amplified.

A key area of need to further enhance the effectiveness of the RPH Homeless Team service relates to the provision of out-of-hospital post-discharge care, as each day there are multiple patients facing discharge to the street, resulting as our data shows, in high rates of re-admission. A proposed solution is a Medical Recovery Centre (MRC), based on the established Boston model, where patients could be discharged from hospital for a period of recuperation and intensive case work. A MRC would provide a home-like environment to which homeless patients could be discharged to complete their treatment with less costly hospital in the home services re services rather than requiring lengthy inpatient stays.

Although the demonstrated impact of the Homeless Team is compelling, and there is a promising wave of inter-sectoral action to end homelessness in WA, the recently reported trebling in the number of homeless patients seen in UK NHS hospitals over the last 7 years[43] is a cautionary warning for Australia. The UK data highlights the critical need for housing to be part of the health solution if the revolving hospital door is to be slowed. The morbidity and mortality burden of homelessness escalates as people remain in chronic homelessness, without their underlying social determinants of poor health addressed. The sobering UK data has led the British Medical Association and others to call for better collaboration between health and social services, more social housing options, medical recovery centres to avert discharge to the street, and greater investment in community mental health and addiction services that people who are homeless can access.

The care delivered to patients' experiencing homelessness can be considered an 'acid test' for the whole health system
- Dr Nigel Hewett, OBE 2013

In WA, homelessness is also shaped by factors beyond health system control, but despite this, the RPH Homeless Team is demonstrating how effective collaboration between health and community services can connect vulnerable rough sleepers to housing, support services, and long term primary care. This achieves both reductions in expensive hospital healthcare use and improves the health and wellbeing of

the most vulnerable and marginalised individuals in our society. Both locally and globally, there is increasing recognition that effective healthcare goes beyond the delivery of a traditional medical model. It must incorporate tackling the adverse social determinants of health without which even sophisticated and expensive healthcare has little impact.

The RPH Homeless team, with its combined medical and social focus, exemplifies a new type of healthcare that is able to deliver better health and wellbeing for individuals experiencing homeless at substantially lower cost to the health system.

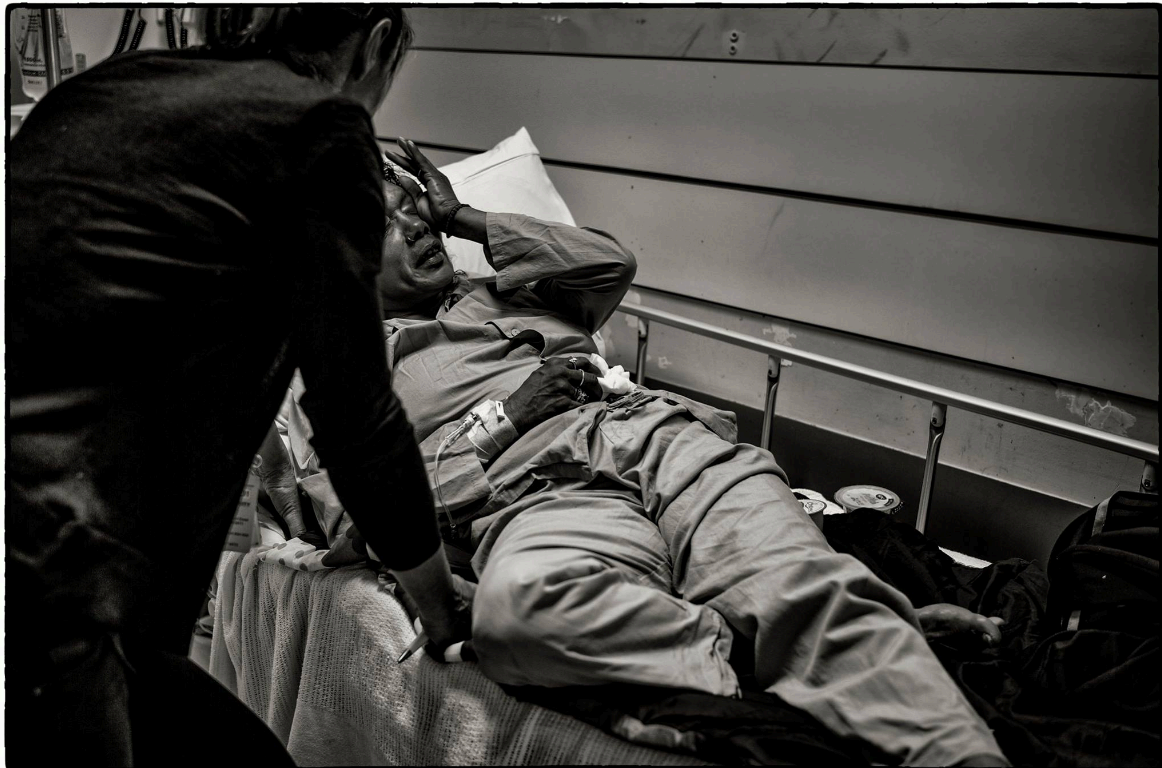


Photo 19: Patient Centred Care

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