# Royal Perth Hospital Homeless Team



A REPORT ON THE FIRST 18 MONTHS OF OPERATION May 2018

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"The RPH Homeless team exemplifies the latest international evidence for effective interventions in homeless health care. Integration of services is central to improving health outcomes for multiply excluded groups and reducing unplanned secondary care. The RPH Homeless team brings community expertise and contacts into the hospital, ensuring that discharge planning begins on the day of admission so that patients are linked to appropriate community health, housing and voluntary sector support on discharge thus reducing bed days in hospital, and re-admissions."

- Dr Nigel Hewett, Medical Director of Pathways UK (2018)

#### Acknowledgements

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#### **Acronyms and Abbreviations**

ACU Acute Care Unit

AHSS After-Hours Support Service

AOD Alcohol and other Drugs

BIU Business Intelligence Unit

COPD Chronic Obstructive Pulmonary Disease

ED Emergency Department

EMHS East Metropolitan Health Service

EMW Emergency Medicine Ward

FDV Family and Domestic Violence

GP General Practitioner

HHC Homeless Healthcare

IHPA Independent Health Pricing Authority

IVDU Intravenous Drug User

LOS Length of Stay

NFA No Fixed Address

RPH Royal Perth Hospital

RPH HT Royal Perth Hospital Homeless Team

STU State Trauma Unit

UK United Kingdom

UWA The University of Western Australia

VI-SPDAT Vulnerability Index and Service Prioritisation Decision Assistance Tool

#### **EXECUTIVE SUMMARY**

Being homeless is associated with higher morbidity, reduced life expectancy and greater usage of acute services, and there is a costly revolving door between homelessness and the health system.

#### Background

The Royal Perth Homeless Team (RPH HT) commenced in July 2016 as a collaboration between Royal Perth Hospital (RPH) and the Homeless Healthcare General Practice (HHC GP). The core aim of the RPH HT is to improve outcomes for homeless patients by supporting them through their time in hospital, improving discharge planning and continuity of care and linking them with community-based services to address their underlying health and psychosocial needs. The Homeless Team is modelled on the evidence-based UK Pathway model of hospital homeless healthcare<sup>1</sup>, adapted to the Perth homelessness and health sector context.

This first report examines the baseline health and psychosocial profiles of RPH HT patients, and describes the RPH HT model of care, patient flow and patterns of contact with HHC and community-based support services over the first 18 months of operation. Future reports will examine changes in health service utilisation for patients supported by the RPH HT.

#### **Key Findings**

#### Processes and Patient Flow

The RPH HT model of care is multidisciplinary and highly collaborative, with a permanent clinical lead and administrative assistant based at RPH and, HHC GP and Nurses and a Ruah Community Services Community Case Worker who provide in-reach services at RPH.

The RPH HT conducts daily rounds to identify patients who are homeless, link them with HHC, develop patient-centred discharge plans and provide referrals to address housing and psychosocial issues.

### Demographics, Housing Needs and Vulnerability

The RPH HT patients had an average age of 42 years on their first contact with the team, with only 8% being under 20 or over 60 years old. Within the cohort, 69% were male and 28% identified as Aboriginal or Torres Strait Islander.

Patients supported by the RPH HT had significant housing needs, with 71% of patients either sleeping rough or staying in temporary accommodation when seen by the team for the first time. Indicative of the complex needs of the patient cohort and shortages of public housing stock in Western Australia, only 7% of patients were discharged into secure, long-term accommodation.

Patients seen by the team are highly vulnerable due to their complex health profiles, housing circumstances and psychosocial issues. A subset of patients had previously completed the Vulnerability Index – Service Prioritisation Assistance Tool (VI-SPDAT) (a validated tool that measures the vulnerability of people experiencing homelessness), amongst this group 64% scored a vulnerability score of >10 indicating extremely high levels of vulnerability.

#### Health Profile

Patients of the RPH HT have high baseline levels of physical, psychiatric and substance related morbidity, with these conditions often exacerbated by their experiences homelessness. Consistent with this, the most common pre-existing physical health conditions experienced by the patient cohort were Hepatitis B and C (28%) and physical injury (26%). In addition, nearly a quarter of patients (24%) had depression and 15% had deliberately self-harmed through either overdose or self-inflicted injury prior to their first contact with the team.

#### Health Service Utilisation

Patients seen by the RPH HT have very high levels of health service use. Collectively, the 634 patients in the three years prior to their first contact with the team had nearly 4,700 ED presentations and 2,000 inpatient admissions. The total cost to provide services for these individuals over the three-year period was over \$19 million. Since the start of the team's operation, there has been a marked reduction

of homeless patients accounting for the top 20 frequent ED presenters, reducing from 80% (Jul-Dec 2016) to 45% (Jan-Mar 2018).

#### Collaboration and Advocacy

The RPH HT collaborates with HHC and other community-based services to support and advocate for patients beyond the traditional hospital model of service delivery and assists in addressing their underlying health and psychosocial needs. Support provided by the RPH HT has helped patients to seek treatment for underlying issues, navigate the health system and engage with primary care services.

#### Conclusion

This report outlines the structure, processes and patient flow of the RPH HT and describes the baseline demographic and health profiles of the extremely vulnerable cohort of patients they serve. The important roles of the RPH HT in linking patients with support services, liaising with external organisations and providing advocacy for patients are illustrated through patient case studies.



**Photo 2: RPH HT Reviewing Homeless Patients** 

#### 1. INTRODUCTION

### Chronic homelessness is a red flag symptom, marking a significantly increased risk of ill-health and premature death <sup>2</sup> p.306

#### 1.1. Background

There are significant challenges in improving the health and wellbeing outcomes for people experiencing homelessness.<sup>3-5</sup> Homelessness does not occur in isolation and many homeless people have a complex combination of issues relating to physical and mental health, social circumstances and economic vulnerability. People experiencing homelessness suffer a disproportionately high rate of chronic health conditions and often have co-morbidities that complicate their health status.<sup>6,7</sup> Often these chronic health conditions are left undiagnosed and untreated for long periods of time resulting in an increase in service use when patients eventually engage with the health system. There is a reciprocating and multiplying effect in which poor health contributes to homelessness and homelessness further exacerbates ill health and creates significant barriers to improving health and wellbeing.<sup>3,6</sup>

The complexity of health issues faced by people experiencing homelessness mean that they are often frequent users of health services. 4,5,8-10 However, they face barriers to engaging with mainstream primary care providers and, due to competing priorities, often do not seek help until their health has deteriorated to crisis level. 4,9,10 This pattern of health service use results in high rate of emergency department (ED) presentations and high usage of acute, non-elective hospital healthcare. 5,9,10 Frequent ED presentations and hospital admissions are costly to the health system but do little to address patients' underlying chronic medical and psychosocial issues and thus do not reduce ongoing health care costs. 4,5,11

"Of major public health concern is that many of the health conditions that result in the hospitalisation of homeless people are preventable and could be ameliorated by earlier community intervention or follow up in the community setting. Providing appropriate, timely, tailored and extended care for homeless people is thus a public health priority with an enormous economic imperative."

- Dr Christina Pollard EMHS Principal Policy Consultant

It is widely recognised that people who are homeless are highly over-represented in ED and unplanned inpatient admissions. With the growing number of homeless in WA (over 1,000 rough sleeping individuals in WA overall and 464 in the Perth CBD)<sup>12</sup> coinciding with the substantial increase in presentations to EDs and hospital admissions that was described as unsustainable in the recent *Sustainable Health Review* interim report.<sup>13</sup> This is particularly significant for Royal Perth Hospital (RPH), which delivers hospital-based care to some of the most marginalised homeless individuals in the community.

Increasingly, there is the potential for ED presentations and hospital admissions to be seen as an opportunity to engage with people experiencing homelessness, link them with housing and

community-based services and end the revolving door between homelessness, poor health and high hospital service utilisation. 11,14-16 A number of international hospitals have developed specialised teams to address the needs of homeless patients and link them with community-based services, including the world-leading Pathway model. 11,17

#### 1.1.1. Pathways Approach

The Pathway model was first developed by Professor Adrian Halligan in London in 2009, prompted by the death of a homeless man on the front steps of the University College Hospital in London, shortly after discharge from their ED to the streets.<sup>1</sup> Professor Halligan realised that new ways of working with homeless patients in hospitals needed to be developed to improve their social and health outcomes.<sup>1</sup> Dr Nigel Hewett is the current medical director of Pathways.

The overarching aim of the Pathways approach is to deliver practical, patient-focused assistance including linking with community services.<sup>1,11</sup> The Pathway model involves bringing Homeless Medicine GPs in to work in large, tertiary hospitals which saw large numbers of individuals experiencing homelessness.<sup>18</sup> These GPs work alongside the other Pathway team members, nurses and caseworkers linked to community services for rehousing and support, in order to address their patients' adverse social determinants of health.<sup>1</sup>

The core business of the Pathway Teams is to work in the hospitals' ED and inpatient wards to link homeless patients to the community services to address housing and support needs as well as ongoing GP care. Housing, support and GP care are the three most effective interventions for improving the health of this cohort and reducing their use of hospital services. There are now 11 Pathway Teams working across the UK, based on the model developed in London.

#### 1.2. Establishment of the Royal Perth Hospital Homeless Team

The Royal Perth Hospital Homeless Team (RPH HT) started work in June 2016 to better assist people experiencing homelessness who present to the RPH ED or are admitted to inpatient wards.

#### Box 1: Aims of the RPH HT

- **1.** Review and offer assistance to all homeless patients identified within RPH.
- **2.** Link patients to community services to assist with housing and support services.
- **3.** Improve discharge planning and aftercare for homeless patients at RPH.
- **4.** Link homeless patients to long term GP care.
- **5.** Reduce hospital healthcare utilisation via improvements in social situation and access to GP care.
- **6.** Facilitate long-term improvements in health and welfare by addressing social determinants of health.

The RPH HT is the first Pathway Team to be established outside of the UK, with direct support from key leaders in Pathways UK to provide advice and support during the establishment and early stages of the RPH HT. The impetus behind creating a Homeless Team at RPH was created by RPH's Chief

Executive, Dr Aresh Anwar. He was aware of the UK Pathway model and saw the need for such a service at RPH, located in the Perth CBD and serving a large homeless population.

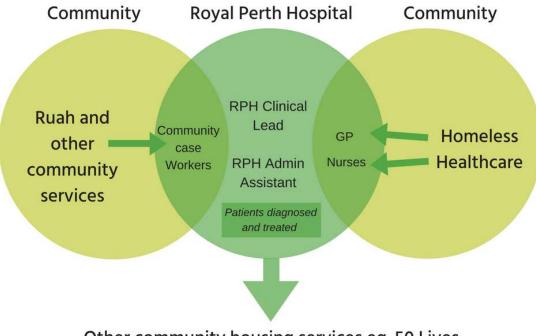
From the outset the RPH HT has operated as a highly collaborative team which partners with multiple existing services to link patients with communitybased support. One of their key partners is the Homeless Healthcare (HHC) GP practice, a specialised Homeless Medicine service for people experiencing homelessness, which provides the GP and nursing components of the RPH HT. The RPH HT also works closely with the multitude of community services in Perth which provide housing and support to individuals experiencing homelessness. This includes a close collaboration with the 50 Lives 50 Homes

"This is an innovative, unique and effective way of working with and within our RPH hospital structure. The team identify and specifically address the needs of homeless patients who present often or are high hospital users. The team put preventive strategies in place, connect these people into services outside the hospital, and connect them with homeless healthcare GP in the community."

> - Dr Christina Pollard **EMHS Principal Policy Consultant**

Program (50 Lives), a Housing First approach providing long term housing and long term, wraparound support to the most chronic and complex people experiencing homelessness. The strong links between the RPH HT and community-based services such as 50 Lives enables social circumstances to be addressed in combination with health issues so as to reduce the high premature mortality and morbidity associated with homelessness.

### **RPH Homeless Team**



Other community housing services eg. 50 Lives

Figure 1: The Royal Perth Hospital Homeless Team and its relationship to other service providers

One of the key leaders assisting with the development of the RPH HT is Dr Nigel Hewett, the Medical Director of Pathway UK. Dr Hewett visited the RPH HT in July 2017 and one of his observations after joining the team on a ward round was how collaborative and multidisciplinary approach of the RPH HT was instrumental in supporting a homeless patient who would otherwise have been discharged to street homelessness (Box 2).

#### Box 2: Dr Nigel Hewett's Observations of the RPH HT

"Just as the Homeless Team arrived at the bedside of this patient, they were being examined by the consultant in charge and as we walked up to the bedside, the consultant was just saying to her team of junior doctors, I think this man is about to baseline we could discharge him home.

He was severely distressed, medically under treated, his psychosis was ignored and the key social fact which was that he was street homeless was being, I think, wilfully ignored by the team in charge.

The really exciting thing was that within a few minutes of being assessed, seeing a HHC GP who knew him and had access to his medical records, and there was a Plan A and Plan B. In the meantime the HHC nurse, a part of the evening outreach team, was aware of plans in the background to try and get this man into long term accommodation in a mentally ill, old aged specific hostel associated with St Barts which would have a wait but he'd be the ideal person to go there.

This man went within ten minutes from potential to be discharged onto the streets because of a wilful disregard of his central social need, to having both a Plan A and a Plan B to stabilise him in hospital and then get him transferred to a permanent solution to his complex problems.

It was inspirational"

- Dr Nigel Hewett, 21st July 2017

#### 1.3. Report Objectives

#### This report aims to:

- 1. Document the demographic profile, morbidity patterns and health needs of individuals experiencing homelessness who have received support from the Royal Perth Homeless Team in its first 18 months 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 HT works to address these issues), and;
- 3. Describe and map the patient 'pathway' and flow and patterns of contact, collaboration and referral between the Homeless Team, Homeless Healthcare GP and community-based support services.

As this team has only been operating for 18 months, and only a small fraction of the people in this group had been seen by the HT early on in its existence, there are only a small number of individuals

who have had at least a year's follow-up time to do meaningful pre-post first HT contact analyses. Future reports will present a comparison of ED and hospital admission patterns before and after HT contact when a larger number of patients have sufficient follow up time. As shown in international studies of homeless health interventions, it is premature to look for substantial changes in hospital use in the first two years of an intervention with people who are homeless, as this is a vulnerable population group with many undiagnosed and under-treated conditions, and often poor experiences of the health system in the past that require trust to be rebuilt.



Photo 3: RPH HT with In-Reach GP and Nurse from HHC

# 2. THE ROYAL PERTH HOSPITAL HOMELESS TEAM KEY ACTIVITIES AND PATIENT FLOW

"Until a health care problem becomes life threatening, a homeless individual will likely choose shelter or food before going to the doctor. These priorities must be considered when dealing with the homeless population. What might, at first, seem like carelessness or noncompliance is, in reality, simply a struggle to survive" 19

#### 2.1. Team Structure

The RPH HT is multidisciplinary and highly collaborative in its processes and division of staff roles (see Figure 2). The team consists of:

- Clinical and administrative staff from Royal Perth Hospital
- General Practitioners and Nurses from Homeless Healthcare
- A community caseworker from Ruah Community Services.

The clinical lead of the RPH HT, Dr Amanda Stafford and administrative assistant, Ms Misty Towers, work full time at RPH.

The HHC GPs and Nurses work as part of the RPH HT, conducting rounds with homeless patients in ED and inpatient wards each weekday morning. The HHC GPs and Nurses also work in 10 community-based HHC clinics, and this enables community based follow up for patients after discharge.

The Ruah Community Caseworker works 0.6FTE with the RPH HT. Ruah Community Services is one of the major providers of homelessness services in Perth, and is strongly networked to a range of support and accommodation services for people who are homeless.

This model of care with RPH HT Staff working both in the hospital and in the community is deliberate and designed to increase client engagement, improve discharge planning and provide continuity of care in the community.

The HT and HHC are also both part of a wider collaboration with local homelessness community services through the 50 Lives project<sup>20</sup>, a multi-agency collaboration using a Housing First model to rehouse and support Perth's most vulnerable and complex rough sleepers.<sup>21</sup> The key roles and activities of staff involved with the HT are summarised in the following figure.

#### **Royal Perth Hospital Homeless Team Ruah Community Services RPH HT Clinical Lead RPH HT Administrative HHC GP HHC Nurses** Caseworker **Assistant** Sphere of **RPH RPH RPH and HHC clinics RPH and HHC clinics RPH and Ruah Community Services** operation Organisation and Homeless Team Homeless Team Rounds (review Homeless Team Rounds (review all Review homeless patients with Role leadership of RPH HT administrative duties and regard to suitable housing and all RPH HT Patients) RPH HT Patients) within RPH data collection community support options 0.5 1.0 0.25 0.5 0.6 FTE • Review suitable housing and Key · Facilitate work of the · Find and collate lists of • Review of all RPH HT patients • Review of all RPH HT patients activities **HHC GPs & Nurses and** homeless patients for the community support options. Provide discharge services to Provide discharge services to **Ruah Caseworkers** Homeless Team Rounds. • Assist homeless patients to homeless patients e.g. wound homeless patients e.g. wound within RPH. Coordinate Homeless complete housing and support dressings, medical and dressings, medical and nursing • Liaise with RPH staff Team Round information service application forms. nursing review. review. between different days regarding RPH HT • Liaise with community support • Ongoing/long term primary • Ongoing/long term primary patients. and care providers. and housing organisations healthcare to homeless healthcare to homeless Maintain the Homeless • Collect data on Homeless • Link homeless patients to patients patients Team database. Team rounds for the suitable homelessness services. Homeless Team database. • Supervise the RPH HT • Provide brief intervention Administrative Assistant. • Receive phone referrals psychological where needed. and enquiries

Figure 2: RPH HT Staff Roles and Activities

#### 2.1.1. Overview of Patient Pathways of Contact with HT

The Figure below outlines typical patient pathways to contact with the RPH HT and usual patient flow during episodes of care (See Figure 3).

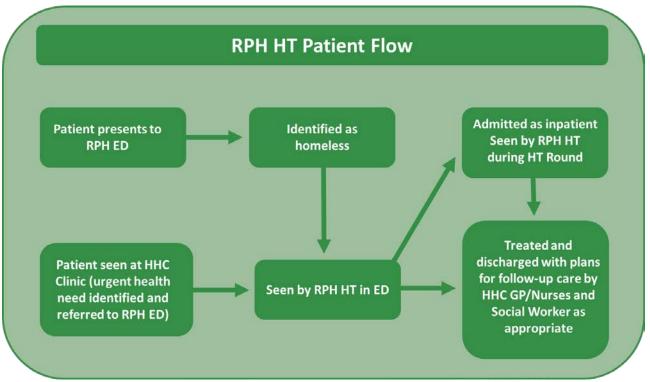


Figure 3: RPH HT Patient Flow

#### 2.2. RPH HT Processes

The RPH HT's mandate is to review all homeless patients within RPH. As not all patients will self-identify as homeless or No Fixed Address (NFA) on presentation, the Team actively seeks to identify them. It common for patients to give addresses that they are not currently living at e.g. Aboriginal and Torres Strait Islander patients who usually live in rural/remote locations but are currently homeless in Perth may use their previous address.

The RPH HT utilises multiple strategies to identify patients who may be homeless and in RPH ED or inpatient wards:

- 1. The hospital's Business Intelligence Unit (BIU) produces a daily list of identified homeless patients in RPH drawn from the hospital census taken at midnight. This selects patients with No Fixed Address or who have given addresses such the Ruah or Tranby Homeless Drop In Centres or transitional accommodation facilities such as St Barts and The Beacon.
- 2. A manual search of the iCM patient lists for hospital areas where homeless patients are frequently found e.g. ED, EMW, ACU and STU. This is carried out by the Administrative Assistant each weekday morning prior to the RPH HT round. The manual search is particularly

- valuable for finding patients who entered the hospital after the midnight census occurs. It also uncovers names of patients known to the HT or who are known HHC patients.
- 3. Staff referrals: information about how to refer is displayed on colourful HT posters (Figure 4) which have been placed in wards and ED. Any staff member can refer a patient for HT review via the electronic referral system or via a specific 1800 number. A referral is not a prerequisite for a HT review: any identified homeless patient will be seen if in the hospital during HT round hours.
- 4. The ED and ED Observation ward (EMW) are the most common locations for homeless patients so these are routinely visited by the Team, generally at the start of the day's round.

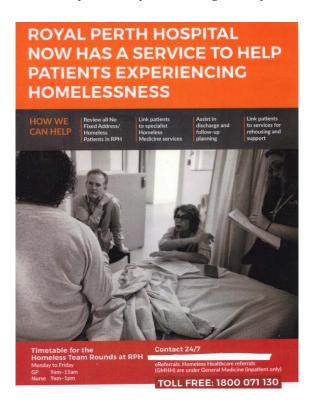


Figure 4: Example of HT Poster placed around RPH

#### 2.2.1. Homeless Team Rounds

Homeless Team Rounds involve the RPH HT (RPH Clinical Lead, HHC GP and Nurse, Community Case Worker and Administrative Assistant) reviewing homeless patients in the RPH ED and inpatient wards. The rounds take place Monday to Friday between 9am and 1pm. The GP and Clinical Lead are present for 2 hours, the Nurse for all 4 hours and the Community Case Worker working both during the 4 hour round then doing 2 further hours of patient based work.

The HT Rounds are used to review patients' medical and psychosocial needs. The team works together with the patient to identify their needs and priorities and develop a discharge plan that supports continuity of care. The Ruah Community Case Worker reviews the patients housing needs, looking at suitable accommodation options and assisting patients with applications to housing and other community-based supports they require. This contact with the RPH HT during the HT Rounds is often

the first step in linking highly disengaged patients with the support services that can assist them in exiting homelessness. A greater focus on person centred services is one of the twelve key directions identified by the Sustainable Health review interim report, with explicit mention of the need to "improve person-centred approach to services and ensure our most vulnerable people do not fall between the cracks". <sup>13</sup> p.6

The clinical encounters by the HHC GPs and nurses during the HT Round are recorded in the HHC Best Practice Database, a widely used GP IT system. The consultation notes for all RPH encounters are

printed out on blank adhesive paper and placed in the patients' medical case notes. This ensures that information discussed during the HT consultation is readily available to the treating team. There are usually discussions with members of the treating team at the time of the HT consultation. Where other referrals or consultations are required e.g. medical, nursing, pharmacy, allied health, social work, this is facilitated by the RPH HT Clinical Lead.

#### 2.3. RPH HT Operation

In the first 18 months of operation (June 2016 to December 2017) the RPH HT reviewed 634 individual patients at RPH. Because some patients were seen on multiple ED presentations

"Seeing the team in action was inspiring and the service they provide is transformational they engage with patients' humanity and taking every aspect of their complex situation into consideration.

These patients are no longer just triaged and delivered back onto to the street until next time. When these patients meet with this highly skilled team, they are finally 'seen' and they enter a system where they receive care that is fit for purpose. They are linked into its extensive community partnerships with an exemplary commitment to a duty of care."

- Christina Pollard EMHS Principal Policy Consultant

or admissions, this amounted to 979 hospital episodes, with a range of 1-8 episodes per patient. Patients could be seen once or more during each episode, especially during longer admissions, resulting in a total of 1,370 consultations carried out by the HT over the 18 months. The RPH ED Observation Ward (EMW) was the most common location for consultations, followed by Medical Inpatient wards, the main ED, Surgical Inpatient Wards and the RPH Psychiatric Ward (Figure 5).

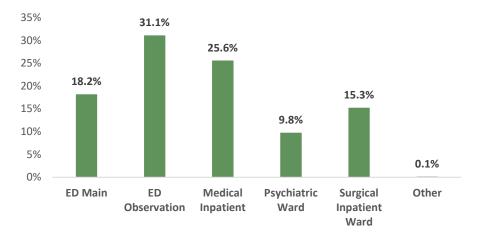


Figure 5: Location of RPH HT Care Episodes

#### 2.3.1. Primary Issues Identified by RPH HT

Patients' primary and secondary diagnoses are recorded upon each contact with the RPH HT. The primary and up to two secondary diagnoses for each episode are then coded into Medical, Injury, Psychiatric, Alcohol and Other Drugs (AOD) or Social categories. It is critical to note however that people who are homeless typically have multiple morbidities<sup>16</sup>, and this is clearly evident in the patients seen to date by the HT (Box 3).

#### Box 3: Example of HT Patient Complexity

A male in his mid-fifties was initially connected with HHC by the RPH HT following the amputation of two of his toes, which exposed a plethora of comorbidities illustrating his complex medical profile. On his first contact alone he was treated for eight different health issues, including: diabetes, hypothyroidism, schizophrenia, anxiety disorders and respiratory infections.

The primary diagnoses show that the vast majority of patients seen by the HT presented with medical, injury, psychiatric or AOD related conditions (Figure 6). Presentations related to patients' psychosocial needs were more common as secondary diagnoses, indicating that although patients have complex needs their primary reasons for presenting are acute medical and injury issues.

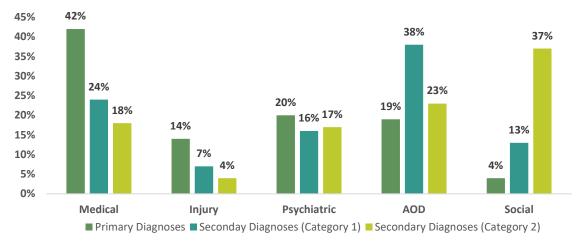


Figure 6: Primary and Secondary Diagnoses for HT Patients (% of Episodes)

#### 2.4. Patterns of Contact

When patients are seen by the RPH HT for the first time, they are assessed for their level of prior contact with the HHC team. This is to ascertain whether the HT is seeing homeless patients with links to primary care services, or whether working at RPH is giving the team contact with a new group of individuals experiencing homelessness. Box 4 demonstrates how engaging patients and linking them to community-based services is a priority for the RPH HT.

#### Box 4: Engaging Clients with Primary Care Services

An RPH ED frequent presenter was particularly reluctant to engage with services was eventually linked with the HHC GP practice in mid-2016, through the efforts of the RPH HT and Street Health nurses. As a result the frequency of his hospital presentations have since declined dramatically.

Of the patients seen by the HT, 21% are well known to the HHC GP practice via its 10 community clinic sites at first contact with the RPH HT (Figure 7). Another group of 26% had "little" previous contact with HHC GP in the past, which was either sparse or many years previously and contact with the RPH HT could put them back in touch with GP care. However the majority of patients, 53%, had no previous contact with HHC GP, in some cases because they were newly homeless or attended other GP practices such as Derbarl Yerrigan but in many cases are the most disengaged individuals who have had no contact with any health or

"The Homeless Team is a very necessary and valuable part of RPH. I had patient last week who had a history of homelessness and had just been evicted again from her home. She was quite unwell and was probably going to have a long hospital stay. She was overjoyed when the Homeless Team visited her in our ward as she said she knew them well. She said that they understood her situation and treated her in a non-judgmental and sensitive way. From being quite down her mood changed after meeting them to being more optimistic about her future."

Registered Nurse, RPH

community service organisations despite often long periods of homelessness. This highlights the value of a hospital based HT as a place to connect with this elusive cohort. Many are high users of hospital healthcare but were unlinked to the community services that could assist with changing this. The HT has been able to engage many of these individuals and assist them to change their life trajectory for the better (Box 4).

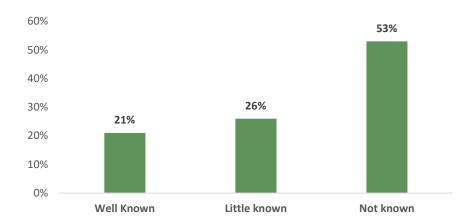


Figure 7: Patients Known to HHC at First RPH HT Contact

#### 3. DEMOGRAPHIC PROFILE OF RPH HT PATIENTS

In the first 18 months of service delivery, the RPH HT supported 634 individual patients experiencing homelessness. This patient cohort is highly marginalised, and their complex health and psychosocial morbidities will be described in this chapter.

#### 3.1. Demographics

Of the patients seen by the RPH HT in the first 18 months of service delivery, 69% were male with an average age of 42 years (see Table 1). Overall 29% of patients identified as Aboriginal or Torres Strait Islander, a significant overrepresentation within the RPH HT cohort of patients compared to the 2.8% of people who identify as Aboriginal or Torres Strait Islander within the general Australian population.<sup>22</sup>

**Table 1: RPH HT Patient Demographics** 

RPH HT Patients	n (%)¹
Gender	
Male	440 (69%)
Female	190 (30%)
Trans	4 (1%)
Age at first RPH HT contact	
Mean age	42
Range	17-80
Aboriginal and Torres Strait Islander	
Aboriginal and Torres Strait Islander	185(29%)
Non-Aboriginal and Torres Strait Islander	453 (71%)

There is a broad spread in the age of patients seen by RPH HT. The majority of patients are aged between 30 – 50 years (see Figure 8), with a small number of patients aged under 20 (2%) and over 60 years (6%).

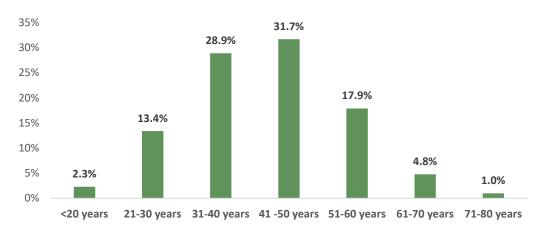


Figure 8: Age of RPH HT Patients

 $<sup>^{\</sup>rm 1}$  Calculated for the 634 patients for whom complete demographic data was available

#### 3.2. Homelessness History and Housing Needs

The majority of patients seen by the RPH HT have complex histories of homelessness. The patients seen by the Team are among the most marginalised people in Perth; with a large proportion rough sleeping on the streets, in squats and cars or living in highly insecure temporary accommodation (see Figure 9) at the time of their presentation to RPH. For 20% of RPH HT patients their housing situation on first contact with the HT was recorded as 'Other' and includes patients in other situations of homelessness such as couch-surfing with family and friends or who were in fact in stable housing having previously been homeless. This latter group were generally the long term patients of HHC GP who were seen on RPH HT rounds as part of their continuing support.

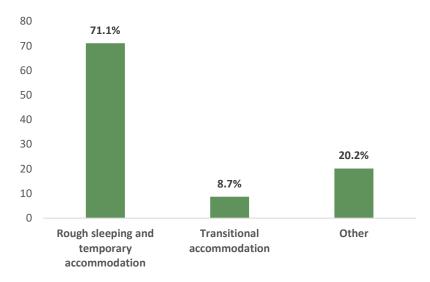


Figure 9: Housing Situation on First Contact with the RPH HT

The significant housing needs of RPH HT patients is evident through their recorded discharge destinations. The RPH HT provides an important role in reviewing patients housing need and linking patients with community-based services to assist them in obtaining stable accommodation. However, it is rare for the RPH HT to be able to secure suitable medium-long term accommodation in the time frame of an ED presentation or hospital admission. Even short term options such as homeless respite (at Tom Fisher House) and backpacker accommodation can be hard to secure. However input by the HT leads to improved discharge destination with a marked reduction in return to rough sleeping from 71% to 40% on hospital discharge. There are many barriers to finding suitable long term accommodation for individuals experiencing homelessness, most importantly the significant shortages of public and affordable housing in Western Australia. Thus the working partnerships established between the RPH HT and homelessness services are critical to meeting the needs of this vulnerable patient group.

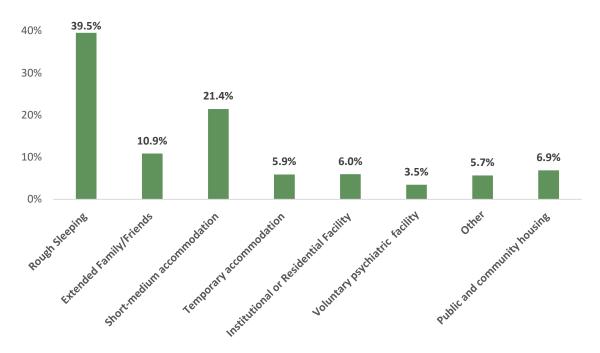


Figure 10: RPH HT Patients Discharge Location

#### 3.3. Patient Vulnerability

Most of the patients seen by the RPH HT have a multitude of complex health conditions and unstable social circumstances, which in most of our cases, involves rough sleeping, the most severe form of homelessness. The patients' degree of marginalisation and therefore priority in being re-housed can be assessed by the "Vulnerability Index – Service Prioritisation Assistance Tool" or VI-SPDAT. This is a validated tool that measures the risk of death from continuing homelessness (vulnerability index) and the types and duration of support

"The many health issues of homeless individuals cluster with, and are exacerbated by, other social determinants of health such as psychological trauma, poverty, unemployment, domestic violence and social disconnection...

Awareness and understanding of these underlying issues is critical to effective healthcare." 24

needed to keep the individual in stable housing (Service Prioritisation Assistance Tool) (Box 5).<sup>23</sup>

#### **Box 5: VI-SPDAT Domains**

The VI-SPDAT assesses vulnerability and support needs across the following domains:

- **History of Housing and Homelessness** (assessing current housing, episodes of homelessness and time spent homeless);
- **Risks** (encompassing health status and service use, risk of incarceration and risk of exploitation);
- **Socialisation and Daily Functioning** (including capacity to self-mange finances, self-care, engage in meaningful activities and relationships), and;
- **Wellness** (chronic physical health conditions, disabilities, mental health, substance use and ability to manage medications).

A VI-SPDAT score over ten indicates extremely high levels of vulnerability and makes the individual eligible for priority rapid housing through Perth's first Housing First Approach, the 50 Lives program.<sup>23</sup> Of the 237 RPH HT patients who had completed the VI-SPDAT, 152 (64%) were classified as extremely vulnerable with scores over ten (See Figure 11) and comprise a significant proportion of the 543 such individuals identified across Perth. 50 Lives is a collaborative approach involving around 40 community services and government organisations in Perth with the collective aim of obtaining and sustaining housing for the most vulnerable homeless people in Perth.

Where the RPH HT identifies patients who are extremely vulnerable but have not completed the VI-SPDAT, the survey is administered by the HT and the team then advocates for the patient to be supported through 50 Lives. As at the end of March 2018, 33 patients of the RPH HT had been found long term housing through the 50 Lives Program.

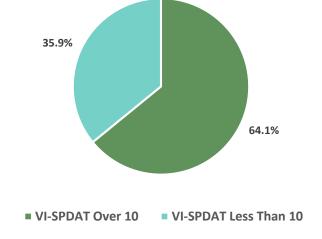


Figure 11: RPH HT Patients VI-SPDAT Scores



Photo 4: HHC Nurse Bed-side with Patient

#### 4. HEALTH PROFILE OF RPH HT PATIENTS

Patients of the RPH HT have complex health profiles, with high levels of physical, psychiatric and substance related morbidity. The complex health conditions experienced by RPH HT patients are often exacerbated by their experiences of homelessness. Additionally, the complex social circumstances experienced by homeless patients present significant barriers to addressing these conditions and improving their health and wellbeing.

#### 4.1. Physical Morbidity Burden

RPH HT patients have a significant physical morbidity burden (see Figure 12). On the assessment done at first contact with the RPH HT, over a quarter of the patient cohort had hepatitis B and/or hepatitis C. Injuries, including wounds and fractures related to falls, had affected 26% of patients when first seen by the RPH HT. Diabetes Mellitus and associated complications and respiratory conditions such as Asthma, Pneumonia and Chronic Obstructive Pulmonary Disease (COPD) are common in the patient cohort, affecting 15% of patients. Cardiovascular disease, including stroke and heart disease, has impacted 12% of patients on their first contact with the RPH HT. Dermatological conditions, primarily cellulitis, has affected 4% of RPH HT patients and is linked to inadequate living conditions.

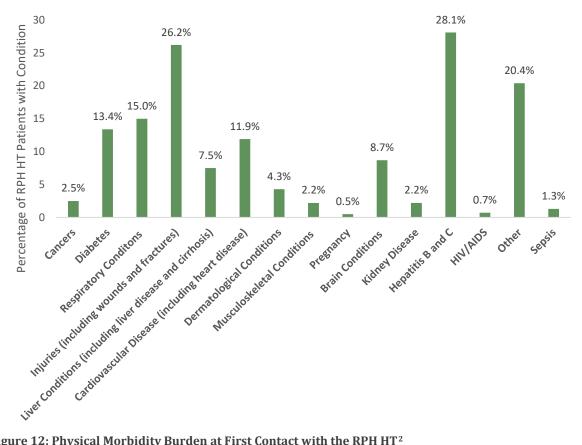


Figure 12: Physical Morbidity Burden at First Contact with the RPH HT<sup>2</sup>

19

<sup>&</sup>lt;sup>2</sup> Patients could have more than one pre-existing physical morbidity recorded

#### 4.2. Psychiatric Conditions

Psychiatric conditions are common in the RPH HT patient cohort (Figure 13). On first contact with the RPH HT nearly a quarter of patients had depression and almost 15% had deliberately self-harmed through either overdose or self-inflicted injury. The serious psychotic disorders of schizophrenia and bipolar affective disorder affect 16.6% of this cohort and many are affected by personality disorders, predominantly emotionally unstable and antisocial types. Congruent with the significant experiences of trauma common to the cohort, 8% had post-traumatic stress disorders.

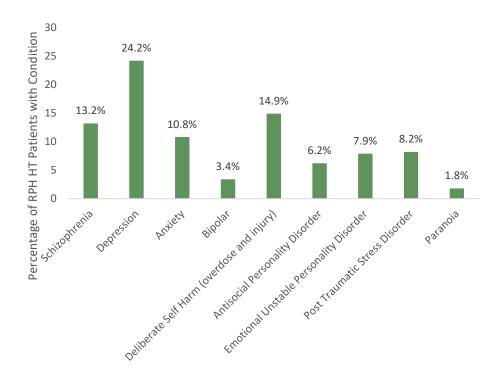


Figure 13: Psychiatric Morbidity Burden at First Contact with the RPH HT<sup>3</sup>

#### 4.3. Substance Use

Substance use is a significant challenge for the patient group supported by the RPH HT with 74% having problematic drug use and 45% having used IV drugs in the preceding 12 months. Methamphetamine is the most common drug used and the use of opiates, both street and prescription derived is also common. Alcohol remains the most common substance misused by this cohort, despite the appearance of methamphetamine and other new drugs.

<sup>3</sup> Patients could have more than one pre-existing psychiatric morbidity recorded

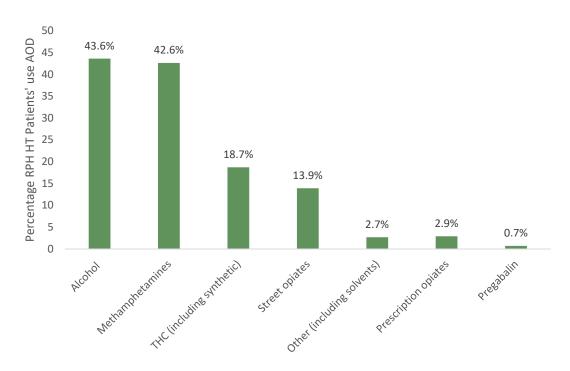


Figure 14: Alcohol and Other Drug Use at First Contact with the RPH  $\mathrm{HT^4}$ 



Photo 5: RPH HT Completing Assessment

<sup>4</sup> Patients could have more than one pre-existing AOD issue recorded

21

#### 5. HEALTH SERVICE UTILISATION OF RPH HT PATIENTS

Homeless people often seek medical treatment at a later stage during illness, leading to costly secondary health care and worsened health outcomes. Exacerbated by this is the reduced potential for recovery due to many homeless people returning to insecure accommodation or even rough sleeping after medical treatment.... The impetus to address these issues are driven by both the need to reduce inequality and to lessen the inflated costs that delayed healthcare and poor housing inevitably lead to further down the line <sup>25</sup>

The cohort of patients seen by the RPH HT have, overall, very high levels of health service use. In the three years prior to first contact with the RPH HT this cohort collectively had 4,659 ED presentations. In-patient admissions were also significant, totalling 2,000 admissions and resulting in a total length of stay of 5,701 days for this period across the patient cohort.

#### 5.1. Hospital Service Utilisation in the 12 Months before the RPH HT

The number of hospital healthcare contacts for the cohort increased in the 12 months prior to the first contact with the RPH HT, likely reflecting their increasingly poor health and social situation. Analysis of data from the BIU indicates that, in the 12 months before the RPH HT, the patient cohort had 2,118 ED presentations. Of these ED presentations, 868 resulted in inpatient admissions with combined length of stay of 2,133 days.

International evidence indicates that homelessness is associated with delayed accessing of health services, hence greater need for acute care, longer hospital admissions, and by extension, greater treatment costs.<sup>10</sup>

#### 5.2. Cost to the Health System

The high health service utilisations of the RPH HT patient cohort represents a significant cost burden to the health system. The combined costs for service utilisation in the three years and year immediately preceding the RPH HT are shown below (Table 2).

The average cost for an ED presentation in WA is \$765.5

The average cost for an non-psychiatric inpatient admission is \$2178.<sup>5</sup>

Table 2: Cost of the Health System of RPH HT Patients' Service Utilisation Prior to the Team

<b>Type of Service Utilisation</b> (Time Period)	Number of Presentations (total days of Length of Stay)	Cost <sup>5</sup>
ED Presentations (2-3 years prior to RPH HT)	1,235	\$944,775
Inpatient Admissions (2-3 years prior to RPH HT)	543 (1,844)	\$5,011,992
Total cost 2-3 years prior:		\$5,956,767
ED Presentations (1-2 years prior to RPH HT)	1,306	\$999,090
Inpatient Admissions (1-2 years prior to RPH HT)	589 (1,724)	\$4,685,832
Total cost 1-2 years prior:		\$5,684,922
ED Presentations (1 year prior to RPH HT)	2,118	\$1,620,270
Inpatient Admissions (1 year prior to RPH HT)	868 (2,133)	\$5,797,494
Total cost year prior:		\$7,417,764
Total ED Presentations (3 years prior to RPH HT)	4,659	\$3,564,135
Inpatient Admissions (3 years prior to RPH HT)	2,000 (5,701)	\$15,495,318
Total cost three years prior:		\$19,059,453

As shown in chapter 4, many of the health conditions among this cohort are preventable or amenable to earlier and less costly primary health care intervention. The following vignette outlines the stabilisation in health after a patient was linked with primary healthcare.

#### Box 6: RPH HT Cost Savings Vignette

Wayne is a male in his late forties who prior to receiving support from RPH HT, rarely engaged with mainstream health services. In mid-2016 he expressed to the HT that he wanted to stop rough sleeping and engaged with the HHC GP practice. Subsequently the frequency of his presentations to hospital began to settle, and in early October 2016 he was housed through the 50 Lives project. Over the next three months he continued to present to ED in crisis but less frequently.

**Impact on healthcare used and costs to date:** During 2016, his ED, inpatient and psych admission equated to an estimated cost associated of \$126,509\*. He had no ED presentations in 2017. He continues to receive primary health care and support through HHC and the 50 Lives After Hours.

<sup>&</sup>lt;sup>5</sup> Costs based on: WA ED presentation cost: \$765. Independent Hospital Pricing Authority, 2018. National Cost Data Collection Cost Report Round 20 Financial Year 2015-16, table 12, pg. 25.

WA Non-psychiatric Admission cost per day: \$2,718. Independent Hospital Pricing Authority, 2018. National Hospital Cost Data Collection Cost Report Round 20 Financial Year 2015-16, table 2, pg. 13.

#### 5.3. Representation Rates

The inability of hospital healthcare alone to resolve the complex issues faced by individuals experiencing homelessness is evident from their extraordinary re-presentation and re-admission rates. These were calculated in the 30 days following each of the 938 episodes of contact with the RPH HT in the 18 months June 2016 to December 2017 (Figure 15).

A re-presentation to RPH ED occurred within 7 days in 24% of these episodes and within 30 days in 49% of the episodes. Because many patients re-presented multiple times within the 7 or 30 day period, this led to a total of 323 RPH ED re-presentations within 7 days of 227 episodes of hospital care and 961 RPH ED re-presentations within 30 days of 455 episodes of hospital care.

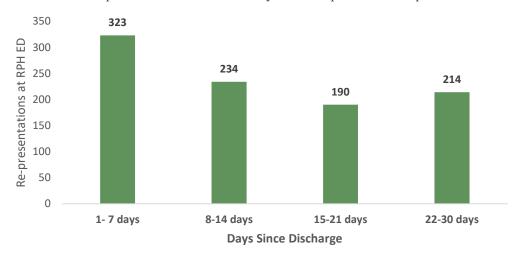


Figure 15: Re-presentation at RPH ED within 30 Days of Discharge

Patients who do not have access to stable accommodation often have deteriorations in their health status after leaving hospital, of the 323 patients who re-presented to RPH ED within seven days of discharge 40% were re-admitted as inpatients. The number of patients re-admitted within seven days of discharge is shown in Figure 16.

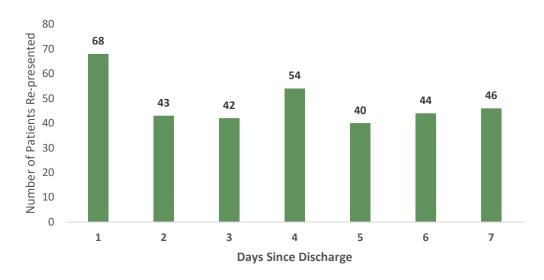


Figure 16: Inpatient Re-admissions within Seven Days of Discharge

Representations to other metropolitan EDs are high, with 8% of RPH HT patients re-representing within seven days of discharge, accounting for 94 ED presentations in this period. Of the representations to hospitals other than RPH within seven days of discharge the majority occurred at Sir Charles Gairdner Hospital, followed by Fiona Stanley Hospital and Armadale Hospital (Figure 17).

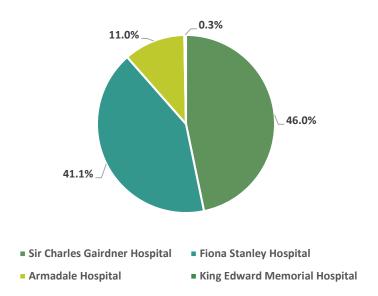


Figure 17: Re-presentations within Seven Days of Discharge to Non-RPH EDs

The vast majority of RPH HT patients who re-present to EDs within 30 days of discharge re-present at RPH. Nearly a quarter of patients also re-represent at other hospitals in this period. A smaller proportion of patients re-present only at other hospitals.

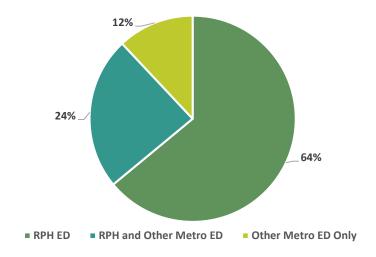


Figure 18: Re-presentations to RPH and Other Metropolitan EDs within 30 Days of Discharge

Of the RPH HT patients who re-present at other metropolitan EDs within 30 days of discharge, the most common locations for re-presentations were Sir Charles Gairdner Hospital, Fiona Stanley Hospital and Armadale Hospital.

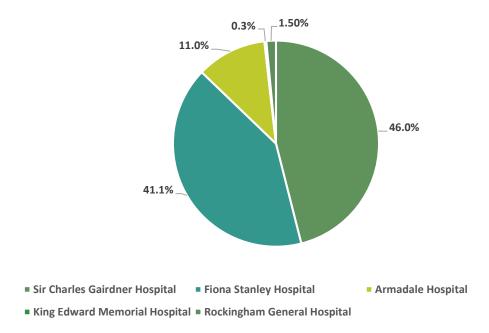


Figure 19: Re-presentations within 30 Days of Discharge to Non-RPH EDs

#### 5.4. Frequent Presenters at RPH ED

The RPH ED has systematically tracked its most frequent presenters since 2014 and targeted them for interventions aimed at reducing their attendances. The most recalcitrant group has been homeless patients who, by 2016, had come to dominate the Top 20 and Top 30 frequent presenter counts. These high frequency presenters are responsible for 22% of all the ED presentations by 'No Fixed Address' patients. They have extremely complex medical multi-morbidities which are further compounded by frequent instances of assault, incarceration and substance use.<sup>4</sup>

The RPH HT has a particular focus on linking these frequent presenters with HHC to support them to access more appropriate preventative care in the community and reduce frequent ED presentations. Since the start of the RPH HT in June 2016, there has been a drop in the percentage of homeless individuals amongst the top 20 and 30 most frequent ED attendees and in the number of ED presentations for these groups (Figure 20 and Figure 21). This has been particularly marked in the first quarter of 2018 where it has dropped below 50% for the first time in nearly 2 years.

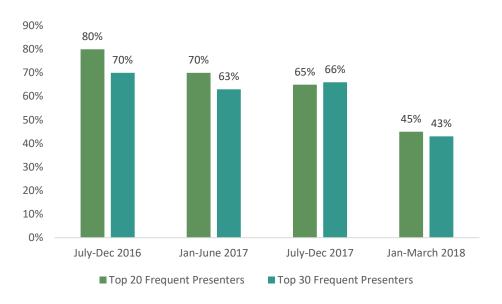


Figure 20: Proportion of Top 20 and Top 30 most frequent presenters who attended RPH ED

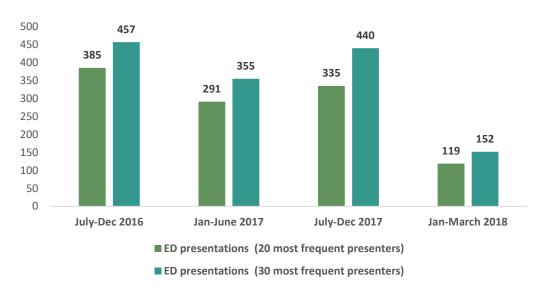


Figure 21: Number of ED Presentations (most frequent attenders)<sup>6</sup>

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<sup>&</sup>lt;sup>6</sup> Note that predicted ED presentations for six month period Jan-June 2018 are: *Top 20*: 238, *Top 30*: 304

# 6. COLLABORATING BEYOND RPH TO MEET PATIENTS' COMPLEX HEALTH AND SOCIAL NEEDS

The RPH HT, as described throughout the previous chapters, supports patients with highly complex medical and psychosocial issues.<sup>3,8</sup> The RPH HT works in collaboration with Homeless Healthcare GP and other community-based services to support patients beyond the traditional model of service delivery and assist in addressing their underlying health and psychosocial needs. Support provided by the RPH HT has helped patients to seek treatment for underlying issues, navigate the health system and engage with primary care services (Box 8).

Linking people to services that can assist them to obtain safe and secure housing is also a critical part of the RPH HT and HHC model, as housing is paramount to addressing the enormous health inequalities observed among people who are homeless.<sup>16</sup>

#### Box 7: Collaboration between RPH HT and HHC to Improve Patients' Health - A Case Study

#### Background

Tyson is a male in his mid-fifties who has been intermittently homeless for six years, spending the majority of that time as a rough sleeper. Tyson's health profile is complex and reflects the trauma experienced by a life on the streets, compounded by time in incarceration and ongoing issues with substance abuse. He has experienced persistent issues with sleep and personal hygiene, which have considerable knock on effects to other areas of his health.

#### Health service utilisation and cost

Across a three-year period between January 2015 and December 2017 Tyson presented to the ED 24 times (10 at RPH), had 30 general inpatient days (22 at RPH) and 27 psychiatric inpatient days (19 at RPH). His costs for this period equate to \$137,997.\*

#### Engagement with the RPH HT and HHC GP

Tyson had not been engaged with any GP service prior to an RPH admission in mid-2017 for a toe amputation for chronic osteomyelitis. During this admission, Tyson was linked for the first time with HHC and was provided with support post-discharge to help manage the amputation and prevent reinfection. This included facilitating short-term accommodation for Tyson in a backpackers to ensure he didn't return to rough sleeping. With the support of Ruah and HHC GP he was then linked to transitional accommodation shortly after hospital discharge.

Once in accommodation, Tyson was able to have regular appointments with the HHC clinic, assisting him in the management of his multiple health concerns. His multi-morbidity is extensive, with HHC providing healthcare for a myriad of conditions including heart disease, peripheral vascular disease, type 2 diabetes, schizophrenia, IV drug use, osteomyelitis, hypothyroidism, amphetamine use, cellulitis, anxiety disorders, respiratory infections, insomnia, ulcers and issues with smoking cessation. Tyson has had only one short admission to RPH since July 2017, and has now moved into long term community housing, where he continues to receive medical support from HHC GP.

<sup>\*</sup>Hospital costs calculated using IHPA National Hospital Cost Data Collection<sup>26</sup>

#### 6.1. Linking Patients with Community Based Health and Support Services

The patients seen by the RPH HT vary widely in their previous level of contact and engagement with homelessness community services for their medical, housing and support needs. Where patients have had previous contact with HHC GP, the RPH HT builds on the connection to encourage follow-up and future preventative treatment. Some patients have not previously engaged with any community-based services. The contact with the RPH HT during ED presentations and hospital admissions has supported previously disengaged patients' to accept support from HHC and homelessness community services.

The recent interim report from the Sustainable Health Review noted the scope for the "WA health system to improve coordination of consumer care between hospitals and general practice ... this would improve consumers' health and allow more conditions to be managed in primary care by GPs and other health professionals working in the community". <sup>13 p28</sup>

The following case study (Box 8) describes how the RPH HT assisted a patient to link with community-based services both in Perth and inter-state. The RPH HT worked with community-based accommodation services to arrange respite and linked the patient with HHC GP to address substantial alcohol issues. As these issues began to stabilise the RPH HT then assisted the patient to re-engage with an interstate rehabilitation facility he had previously attended (Box 8).

#### Box 8: Linking Patients with Community Services - A Case Study

#### Background

Kane is a male in his late thirties who has spent over two years homeless on the streets following a relationship break down and relapse into severe alcohol dependence. He has a complex medical history, including alcohol abuse and mental health issues. In August 2017, he scored 12 on the self-reported VI-SPDAT survey, indicating high vulnerability.

#### Health service utilisation and cost

In the three months between July-September 2017, Kane presented to ED 22 times (20 at RPH), had eight non-psychiatric inpatient admissions (16 days total LOS; 14 at RPH) and two psychiatric admissions with a total LOS of eight days. The total cost associated with Kane's ED presentations and hospital admissions for this three month period was \$71,606.\*

#### Engagement with the RPH HT and HHC

Through his 20 ED presentations and six hospital admissions at RPH in 2017 Kane had nine contacts with the RPH HT, who assisted him in stabilising his excessive alcohol and worked with homeless respite facility, Tom Fisher House, to arrange periods of respite care. Kane realised that he needed to live in a supported environment otherwise his severe anxiety would lead to further alcohol relapses. He had previously stayed for long periods at a residential rehabilitation centre in the Northern Territory that offered longer-term accommodation and support. The RPH HT discussed Kane's needs with the rehabilitation centre and brokered the provision of a one way airfare to allow him to return there.

<sup>\*</sup>Hospital costs calculated using IHPA National Hospital Cost Data Collection<sup>26</sup>

#### 6.2. Linking Patients to Housing services

# The primary and essential function of housing, to provide a safe and sheltered space, is absolutely fundamental to the people's health and wellbeing.<sup>27</sup>

A central tenet of the RPH HT and HHC model of healthcare is that homelessness is both a medical and social issue, and that addressing homelessness is, itself, an important form of healthcare, not a separate "non-health" issue. The team is able to help connect homeless patients to housing support services in a number of ways, including through;

- the Ruah case worker that forms part of the HT
- the strong networks and reciprocal respect with major crisis, transitional and other housing providers in Perth
- active collaboration in the 50 Lives 50 Homes Housing First program for rough sleepers

The following case study demonstrates how the RPH HT assisted a patient to engage with HHC GP during their hospital admission at RPH and how they were subsequently supported to both obtain stable housing and address their complex AOD issues (Box 9).

#### Box 9: RPH HT Patient Pathway and Health Service Use - A Case Study

#### Background

Howard is an Aboriginal male in his early forties who has experienced nearly 15 years of street homelessness over his lifetime. He has a complex history of alcohol abuse and trauma, and has had many interactions with the health and justice systems including prison time. In 2016, Howard had a VI-SPDAT score of 14. Throughout 2017 Howard had numerous ED presentations and hospital admissions for the treatment of a recurrent abscess. It was during these presentations that he began to engage with the HT.

#### Health service utilisation and cost

Between March and May 2017 Howard was treated by HHC GP's Street Health service four times for wound care and alcohol dependency. On several occasions Street Health referred Howard to RPH ED for surgical treatment of his abscess. In the 2.5 years prior to contact with the RPH HT, Howard presented to ED 20 times (14 at RPH) and had nine non-psychiatric admissions (20 days total LOS; 15 at RPH). During this time, he had a total estimated cost associated with ED presentation and hospital admissions of \$69,660.\*

#### Engagement with the RPH HT and HHC

Through his eight ED presentations and two hospital admissions at RPH in 2017 Howard began to engage with the RPH HT, who assisted him with stabilising his excessive alcohol use with baclofen treatment. The HT encouraged him to engage with HHC on discharge to continue addressing his alcohol and other issues. Homeless Healthcare via the HT and HHC GP Clinics also assisted him to obtain supported housing. Stable housing has made a significant difference to Howard's use of health services. He continues to receive support from HHC and has not had any ED presentations or hospital admissions since mid-2017.

<sup>\*</sup>Hospital costs calculated using IHPA National Hospital Cost Data Collection<sup>26</sup>

The RPH HT and HHC are both part of the a wider collaboration with local homelessness community services through the 50 Lives project, a multi-agency collaboration using a Housing First model to rehouse and support Perth's most vulnerable and complex rough sleepers. The 50 Lives objective is to assist the most vulnerable of homeless people in Perth to access long-term housing coupled with support to assist people to sustain housing. Recognising that homelessness and poor health outcomes are intertwined, a unique feature of 50 Lives is the after-hours support service (AHSS) that includes HHC nurses.

The close working collaboration with 50 Lives has also been invaluable for continuity of healthcare for those not yet housed, as illustrated in this example provided by the 50 Lives coordinator:

We had an incident where a homeless patient walked out of ED untreated with a large head wound. The RPH team were able to use outreach workers connected to 50 Lives to find him and get him back to hospital. It also works the other way where outreach workers are unable to find people. The hospital and Homeless Healthcare teams are able to look up their systems and give updates on when they last saw people and what is happening with them.

#### 6.3. Advocating for Patients and Liaising with External Services

An important role of the RPH HT is to communicate with external services to advocate for their patients and ensure they are receiving best-practice care during interactions with the health system. The case study below illustrates the role of the RPH HT in working with external services to achieve a positive outcome for their patient, which would have otherwise have resulted in serious health consequences for the patient and significant costs to the health system (Box 10).

"The RPH Homeless Team sees, embraces, understands and relates to the entirety of the patient. These patents are no longer just triaged and delivered back onto to the street until next time. When these patients meet with this highly skilled team, they are finally 'seen' and they enter a system where they receive care that is fit for purpose. They are linked into its extensive community partnerships and exemplary commitment to a duty of care."

Dr Christina Pollard East Metropolitan Health Service

#### Box 10: Coordinating with External Services - A Case Study

#### Background

Beth is an Aboriginal woman in her late forties from a remote community. She has cognitive impairment (mix of foetal alcohol syndrome and traumatic brain injuries). She primarily speaks her local Aboriginal language and has limited English. Beth has been street homeless and a regular presenter to RPH ED, averaging 14 presentations/year for the last five years.

#### Engagement with the RPH HT and HHC

In mid-2016, at a HHC outreach clinic, HHC GPs noticed a suspected cancer on Beth's lip. The RPH HT supported Beth to remain in hospital while she had the necessary biopsies and tests. This was critical as she had a pattern of leaving against medical advice. As noted by Dr Stafford, the Clinical Lead of the RPH HT, "the usual situation is that these cancers are picked up late and require either extensive, invasive and unpleasant treatment or are just palliated as it's too late."

The RPH HT liaised frequently with the RPH Plastic Surgery Team, to ensure that Beth's surgery was completed as soon as possible, and made them aware of her low level of English language comprehension and that she spoke an Aboriginal language fluently. The RPH HT liaised with Derbarl Yerrigan Health Service to find an interpreter to ensure Beth understood the potential risks of surgery and could then give informed consent.

The RPH HT also communicated the details of all hospital appointments to Beth's Ruah Case Worker, who had an established relationship and could support her to attend. This coordination enabled all of Beth's pre-surgery investigations to be carried out during outpatient appointments, avoiding hospital admissions from which she was likely to leave.

Fortunately, Beth's cancer had not spread beyond her lip with the early detection by HHC and rapid treatment at RPH while supported by the RPH HT contributing to this positive outcome.



Photo 6: RPH Homeless Team in Action

#### 7. CONCLUSION

This first report provides an overview of the structure, processes, patient flow and patterns of contact for the Royal Perth Hospital Homeless Team over the first 18 months of service operation. Royal Perth Hospital sees significant numbers of homeless patients and the RPH HT, as evidenced through the baseline demographic and health profiles of their patients, serves an extremely vulnerable, high-need cohort.

Whilst this report does not examine comprehensive changes in patients' health profiles of health service utilisation, case studies throughout this report illustrate the important work of the RPH HT and the significant positive impacts they have had on individual patients and their lives. This evaluation of the activity and impact of the Team has wider and timely implications beyond RPH coinciding with the implementation of the recommendations of the WA Health Clinical Senate held in November 2016 on homelessness <sup>28</sup> and recent *Sustainable Health Review.* <sup>13</sup> Recommendation 3 of the Clinical Senate pertains to the imperative to gather and analyse data on homeless patients to inform the development of a WA Standard of Care for homelessness, noting that "EMHS (RPH) has a model and it should be examined and considered for adoption by other health services". <sup>28</sup> The recent Sustainable Health Review has articulated a case for change within the WA health system, observing that currently <sup>13</sup>:

- The focus remains on treatment rather than prevention
- There are significant and persistent inequities in health outcomes among some groups
- The system can be difficult to navigate for health consumers
- Healthcare does not equal hospital beds

The collaborative approach and innovative model of the RPH HT is well-placed to meet the challenges of the Review and the need for data collection per the Clinical Senate Recommendations. Future reports will examine changes in health service utilisation for RPH HT patient who have obtained stable housing and aim to further amplify and showcase the difference the Team is making in the lives of these vulnerable individuals.



**Photo 7: HT Nurse with Patient** 

#### REFERENCES

- 1. Hewett N. Evaluation of the London Pathway for Homeless Patients. 2010.
- 2. Hewett N, Halligan A. Homelessness is a healthcare issue. Journal of the Royal Society of Medicine. 2010;103(8):306-307.
- 3. Fazel S, Geddes JR, Kushel M. The health of homeless people in high-income countries: descriptive epidemiology, health consequences, and clinical and policy recommendations. The Lancet. 2014 [cited 2014/10/31/];384(9953):1529-1540.
- 4. Kushel M. Things Fall Apart: Preventing High Readmission Rates Among Homeless Adults. Journal of General Internal Medicine. 2016;31(9):985-986.
- 5. Moore G, Gerdtz MF, Hepworth G, Manias E. Homelessness: patterns of emergency department use and risk factors for re-presentation. Emergency Medicine Journal. 2010;28:422-427.
- 6. The Lancet, Health of the homeless (Editorial), The Lancet, 2014 [cited 2014/10/31/]:384(9953):1478.
- 7. Fazel S, Khosla V, Doll H, Geddes J. The Prevalence of Mental Disorders among the Homeless in Western Countries: Systematic Review and Meta-Regression Analysis. PLoS Med. 2008;5(12):e225.
- 8. Jelinek GA, Jiwa M, Gibson NP, Lynch A-M. Frequent attenders at emergency departments: a linked-data population study of adult patients. The Medical Journal of Australia. 2008;189(10):552-556.
- 9. Kushel MB, Perry S, Clark R, Moss AR, Bangsberg D. Emergency Department Use Among the Homeless and Marginally Housed: Results From a Community-Based Study. American Journal of Public Health. 2002;92(5):778-784. Available from: s3h
- 10. Hwang SW. Hospital costs and length of stay among homeless patients admitted to medical, surgical, and psychiatric services. Medical care. 2011;49(4):350-354.
- 11. Hewett N, Buchman P, Musariri J, Sargeant C, Johnson P, Abeysekera K, et al. Randomised controlled trial of GP-led in-hospital management of homeless people ('Pathway'). Clin Med (Lond). 2016 Jun;16(3):223-9.
- 12. Australian Bureau of Statistics. 2049.0 Census of Population and Housing: Estimating homelessness 2016 Table 6.1. Canberra; 2018.
- 13. Government of Western Australia. Sustainable Health Review Interim Report to the Western Australian Government. 2018. Available from: <a href="http://ww2.health.wa.gov.au/~/media/Files/Corporate/general\_documents/Sustainable Health Review/sustainable-health-review-interim-report.pdf">http://ww2.health.wa.gov.au/~/media/Files/Corporate/general\_documents/Sustainable Health Review/sustainable-health-review-interim-report.pdf</a>
- 14. Hwang SW, Burns T. Health interventions for people who are homeless. The Lancet. 2014 // [cited 2014/10/31/];384(9953):1541-1547.
- 15. Hewett N, Halligan A, Boyce T. A general practitioner and nurse led approach to improving hospital care for homeless people. BMJ: British Medical Journal. 2012;345.
- 16. Luchenski S, Maguire N, Aldridge RW, Hayward A, Story A, Perri P, et al. What works in inclusion health: overview of effective interventions for marginalised and excluded populations. The Lancet. 2018;391(10117):266-280.
- 17. O'Connell JJ, Oppenheimer SC, Judge CM, Taube RL, Blanchfield BB, Swain SE, et al. The Boston Health Care for the Homeless Program: a Public Health Framework. American journal of public health. 2010;100(8):1400-1408.
- 18. Hewett N, Bax A, Halligan A. Integrated care for homeless people in hospital: an acid test for the NHS? Br J Hosp Med (Lond). 2013 Sep;74(9):484-5.
- 19. Wise C, Phillips K. Hearing the silent voices: Narratives of health care and homelessness. Issues Ment Health Nurs. 2013 (34):359-367.
- 20. Ruah Community Services. 50 Lives 50 Homes. 2017 [cited 2017 13th October]. Available from: <a href="https://www.ruah.org.au/housing-and-homelessness/">https://www.ruah.org.au/housing-and-homelessness/</a>
- 21. Wood L, Vallesi S, Kragt D, Flatau P, Wood N, Gazey A, et al. 50 Lives 50 Homes Evaluation: A Housing First Response to Ending Homelessness. First Evaluation Report. Perth, Western Australia Centre for Social Impact, University of Western Australia 2017. Available from:

http://www.csi.edu.au/media/50 Lives 50 Homes FINAL REPORT.pdf

- 22. Australian Bureau of Statistics. In: Census: Aboriginal and Torres Strait Islander Population. 2017 Australian Bureau of Statistics.
- $23. \ \ Community\ Solutions, OrgCode\ Consulting\ Inc.\ The\ Vulnerability\ Index\ -\ Service\ Prioritization\ Decision\ Assistance\ Tool\ (VI-SPDAT);\ Manual\ for\ Single\ Person\ Households.\ 2014.\ Available\ from:$

http://www.orgcode.com/lesson/vispdat2-8-scoring/

- 24. Stafford A, Wood L. Tackling Health Disparities for People Who Are Homeless? Start with Social Determinants. Int J Environ Res Public Health. 2017;14(12):1535.
- 25. Homeless Link. In: Evaluation of the Homeless Hospital Discharge Fund. 2015
- 26. Independent Hospital Pricing Authority. National Hospital Cost Data Collection Cost Report: Round 20 Financial Year 2015-16. 2018.
- 27. Murphy D 2006 ENHR Conference, Workshop 5 "The Residential Context of Health"; June 2006; Brussels.
- 28. Department of Health Western Australia. Homelessness No fixed address Can we still deliver care? . 2016. Available from: <a href="http://ww2.health.wa.gov.au/~/media/Files/Corporate/general documents/Clinical-Senate/PDF/November/Final Report Homelessness Nov2016.pdf">http://ww2.health.wa.gov.au/~/media/Files/Corporate/general documents/Clinical-Senate/PDF/November/Final Report Homelessness Nov2016.pdf</a>





