HOMELESS HEALTHCARE

TACKLING HEALTH DISPARITIES AMONG PEOPLE EXPERIENCING HOMELESSNESS – THE IMPACT OF HOMELESS HEALTHCARE

EVALUATION REPORT OCTOBER 2018

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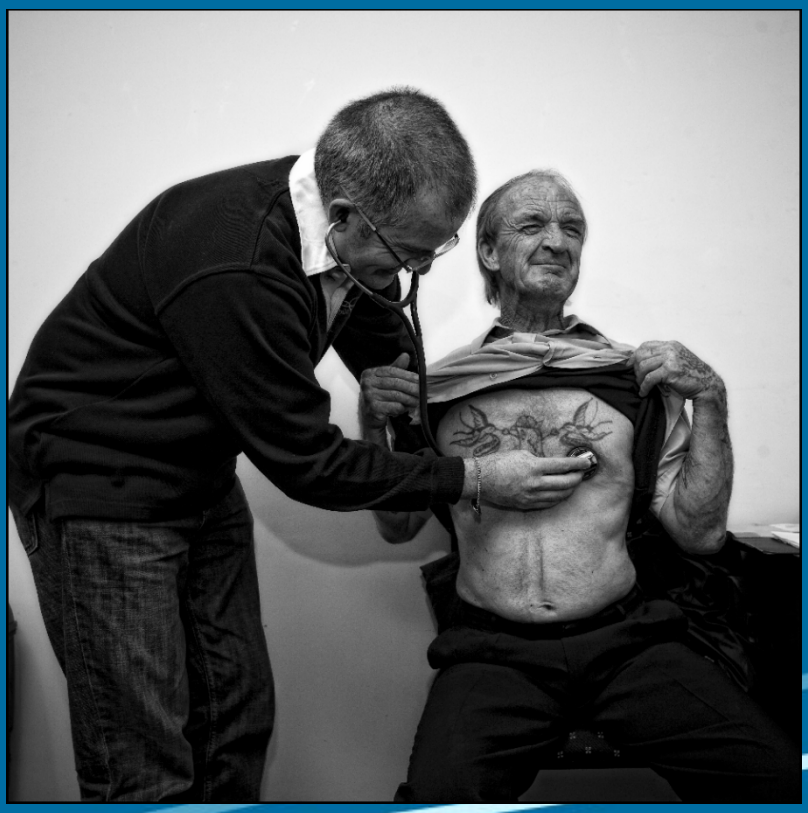
Homeless HEALTHCARE

THE UNIVERSITY OF WESTERN AUSTRALIA

Medical treatment of people who are homeless cannot, in and of itself, break the cycle of homelessness that is implicated in the over-representation of people who are homeless in the WA health system. Homeless Healthcare is unique in its dual attention to primary healthcare and the social determinants of health, and in collaboration with health and homelessness sector service providers, uses a holistic and evidence-based approach to ameliorating the poor health and social circumstances of people who are homeless in Western Australia

Gareth Eldred
(6 May 1983 – 30 September 2018)



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Photos taken by Tony McDonough within this report are used with permission from Homeless Healthcare.

Finally, and by no means least, we are grateful to the homeless and formerly homeless clients engaged with Homeless Healthcare, whose journeys, stories and changes this evaluation seeks to capture and honour.

Our research team dedicates this report to our colleague Gareth Eldred, who was passionate about redressing health disparities among people who are homeless, but sadly passed away prior to report completion.

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LIST OF ACRONYMS

50 Lives	50 Lives 50 Homes
ADHD	Attention Deficit Hyperactivity Disorder
AHSS	After-Hours Support Service
AOD	Alcohol and other drugs
CBD	Central Business District
COPD	Coronary Obstructive Pulmonary Disorder
ED	Emergency Department
EMHS	East Metropolitan Health Service
GP	General Practitioner
HHC	Homeless Healthcare
ICU	Intensive Care Unit
IHPA	Independent Health Pricing Authority
LOS	Length of stay
NFA	No fixed address
NMHS	North Metropolitan Health Service
NRT	Nicotine Replacement Therapy
NSW	New South Wales
OD	Overdose
PBS	Pharmaceutical Benefits Scheme
PTSD	Post-Traumatic Stress Disorder
RPH	Royal Perth Hospital
SD	Standard Deviation
TGA	Therapeutic Goods Administration
UK	United Kingdom
US	United States
UWA	The University of Western Australia
VI-SPDAT	Vulnerability Index- Service Prioritisation Decision Assistance Tool
WA	Western Australia
WAPHA	WA Primary Health Alliance

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

Since Homeless Healthcare (HHC) commenced in 2008, the pervasiveness of homelessness in Perth and Western Australia has become increasingly apparent, with factors such as housing affordability and domestic violence contributing to the burgeoning problem. People experiencing homelessness have a shorter life expectancy, chronic poor health and complex psychosocial issues, and often present frequently to emergency departments (ED). These health disparities coupled with reduced access to primary and preventative healthcare result in a large and costly burden on the Western Australian hospital system.

Homeless Healthcare is an innovative example of a specialised multi-site General Practice (GP) that seeks to meet the primary healthcare needs of people who are homeless, while also assisting patients to access housing and other support to break the cycle of homelessness. Although the physical delivery of healthcare is the entry point, HHC recognises that the causes of homelessness and associated poor health are multifactorial and that more tailored and multi-pronged solutions are necessary.

This first evaluation report provides and overview of the HHC model of care and the scope of services provided. The report draws on hospital and HHC data, patient interviews and case studies to describe the demographic profile, complex health needs and patterns of hospital utilisation of HHC patients. Changes in health outcomes are examined for some patients where longitudinal data was available. Current health service gaps for Perth's homeless population are also identified, along with the policy imperative for housing to be an integral part of health system responses to homelessness.

HHC Model of Care

Homeless Healthcare provides primary care in a wide range of settings familiar to people who are experiencing homelessness. These include mobile clinics at drop-in centres, transitional accommodation facilities, women's refuges, and an alcohol and other drugs (AOD) rehabilitation centre. Homeless Healthcare also provides a nurse-led mobile outreach service for people who are street homeless and runs daily clinics at its premises in West Leederville. Since mid-2016, HHC has also delivered an innovative GP in-reach service at Royal Perth Hospital (RPH).

The HHC Model of Care is grounded in a *'social determinants of health'* ethos, with strong collaborative partnerships with homelessness, housing and social sector organisations. There are eight core principles underpinning the way in which healthcare is provided to its patients: recognition of underlying health and psychosocial issues; trauma-informed practice; bringing services to where people are; no cost to client; continuity of care; offering services for medium to long-term care; referring to housing/other supports; and establishing collaborations with homelessness services.

Demographic Profile of HHC Patients

Homeless Healthcare provides healthcare and support to people across the spectrum of homelessness and risk of homelessness. This includes rough sleepers, people in crisis/transitional accommodation, and those who have been re-housed.

This report primarily looks at active HHC patients (two appointments in the past three years). Of the 1,962 active patients, two-thirds (65%) were male and 20% identified as Aboriginal or Torres Strait

Islander. Most of the active patients seen by HHC are aged between 25 and 44 years (49%).

Health Needs

The majority of HHC's active patients have multiple serious health conditions. Psychiatric conditions are common among active patients, with depression (35%), anxiety (32%), and schizophrenia (9%), the most frequent conditions.

Comorbidity is common among individuals experiencing homelessness: 34% of active patients have two or more morbidities relating to diabetes, respiratory conditions, cardiovascular disease, musculoskeletal conditions, kidney disease and mental health conditions.

Health Service Utilisation

The revolving door between homelessness and hospitals is well documented, and the imperative to reduce preventable hospital presentations is an important metric for health systems. In this report, health administrative data were available for 933 active HHC patients from four hospital sites in the East Metropolitan Health Service catchment area (RPH, Bentley, Kalamunda and Armadale). Between 2014 and 2017, this subsample of active HHC patients with data available for (n=933) had >8,000 ED presentations and spent >11,000 days admitted as inpatients. This equated to a cost burden of more than $37.6 million over just four years, or >$10,000 per person per year. The most common reasons for ED presentations include injury/poisoning and AOD use disorders, and mental health often accounted for longer hospital admissions.

Having safe and stable housing is an essential component of attaining and maintaining health, and the absence of housing perpetuates many health problems. A core premise of HHC is the need for patients to be housed for health to improve significantly. Homeless Healthcare is a key partner in WA's inaugural Housing First initiative, 50 Lives 50 Homes project (50 Lives) and this report examined health service utilisation among HHC patients who had been housed for six months or more through 50 Lives.

Via 50 Lives, 63 active HHC patients have been housed for more than six months. Even after this short period, observable changes have been detected in hospital utilisation, including a 22% reduction in people attending ED, a 39% reduction in total ED presentations, and a 48% reduction in total days spent admitted as an inpatient.

For the 43 active HHC patients who had been housed for more than 12 months, there was a 26% reduction in people attending ED, a 57% reduction in total ED presentations, and a 41% reduction in total days spent admitted as an inpatient.

There is More to be Done...

Since its small beginnings in 2008, HHC has made massive strides in providing healthcare and support to a vulnerable population group that often falls through the cracks of the primary health system. This is a patient cohort with highly complex health and psychosocial needs, often compounded by trauma. The demand for the type of specialist homelessness GP care provided by HHC is growing, with hospitals and homelessness services across Perth reporting high numbers of contacts with people with multiple morbidities, and without a GP.

Homeless Healthcare currently receives some government funding but is increasingly reliant on philanthropic donations to sustain its essential services. As shown in this report, the work of HHC is yielding substantial savings for the health system through reduced hospital use. There are also critical health service gaps that merit funding, including tailored mobile clinics for women who are homeless (many of whom have been affected by domestic violence and trauma), young people experiencing homelessness, and for the large number of people with dual mental health and AOD issues. Perth also lacks a place where people who are homeless can go to recoup from or prepare for hospital treatment. The Medical Recovery Centre proposed by HHC and based on the successful North American model is but one example of HHC's drive to identify and address gaps in the provision of healthcare for one of society's most vulnerable population groups.

1 INTRODUCTION

Without Homeless Healthcare I reckon I'd be dead – HHC Patient

Health and housing are both fundamental human rights, and it is difficult to achieve one without the other. Homelessness is strongly 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. There is thus a fiscal and public health imperative to reduce homelessness and its associated health impacts.

Homeless Healthcare was established in 2008 as a not-for-profit multi-site GP service for people experiencing homelessness. It provides clinics and healthcare in a range of community settings and is underpinned by a 'social determinants of health' ethos. The work of HHC is supported by strong collaborations with Royal Perth Hospital (RPH) and a wide range of community-based services for people experiencing homelessness. These collaborations serve as:

(i) an important and trusted point of contact with people who are homeless and in need of primary healthcare, and

(ii) avenues to connect patients to housing and other forms of support that can help to break the cycle of homelessness.

1.1 Homelessness in Western Australia

Since Homeless Healthcare commenced in 2008, the pervasiveness of homeless in Perth and Western Australia (WA) has become increasingly apparent. The 2016 Australian Census estimated that more than 9,000 people experience homelessness in WA on any given night.[2] Homelessness comes in many forms (see Figure 1) beyond the visible presence of people sleeping rough in streets and parks, and includes a vast number of people in crisis and precarious housing circumstances. While rough sleepers (also referred to as primary homelessness) is the most visible form of homelessness, it only accounted for 12% (n=1,038) of those who reported being homeless in WA on census night.[2] Western Australia, however, had a higher proportion of people experiencing primary homelessness (12%) than the rest of Australia (7%).[2]

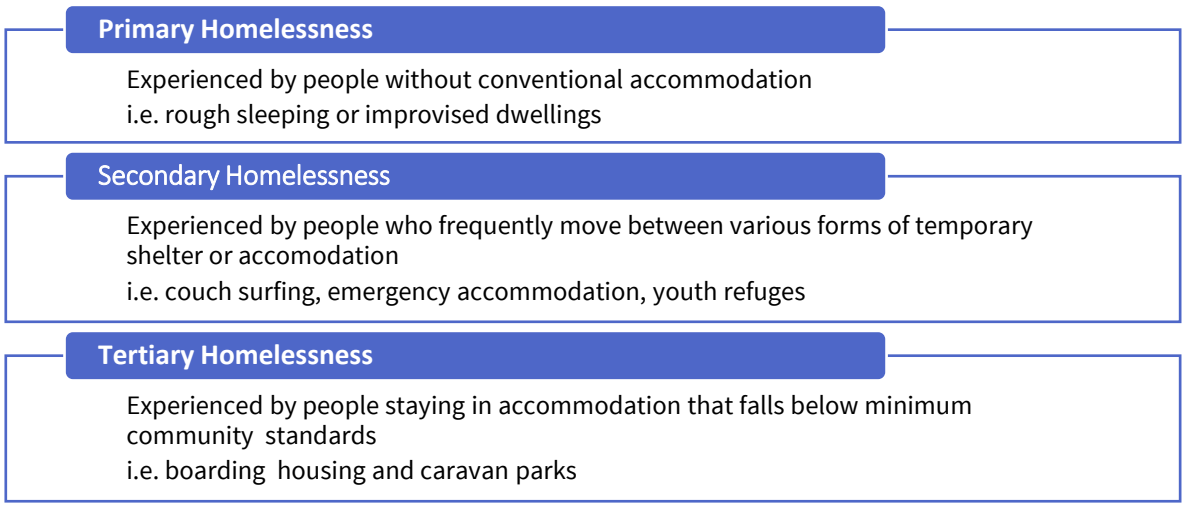

Figure 1: Types of Homelessness

Western Australia along with other states and territories, is seeing a growing population of people at risk of homelessness due to factors such as housing affordability, precarious employment and domestic violence.[3] Homelessness is also increasingly dispersed across Perth suburbs, not solely concentrated in inner-city areas (see Figure 2).

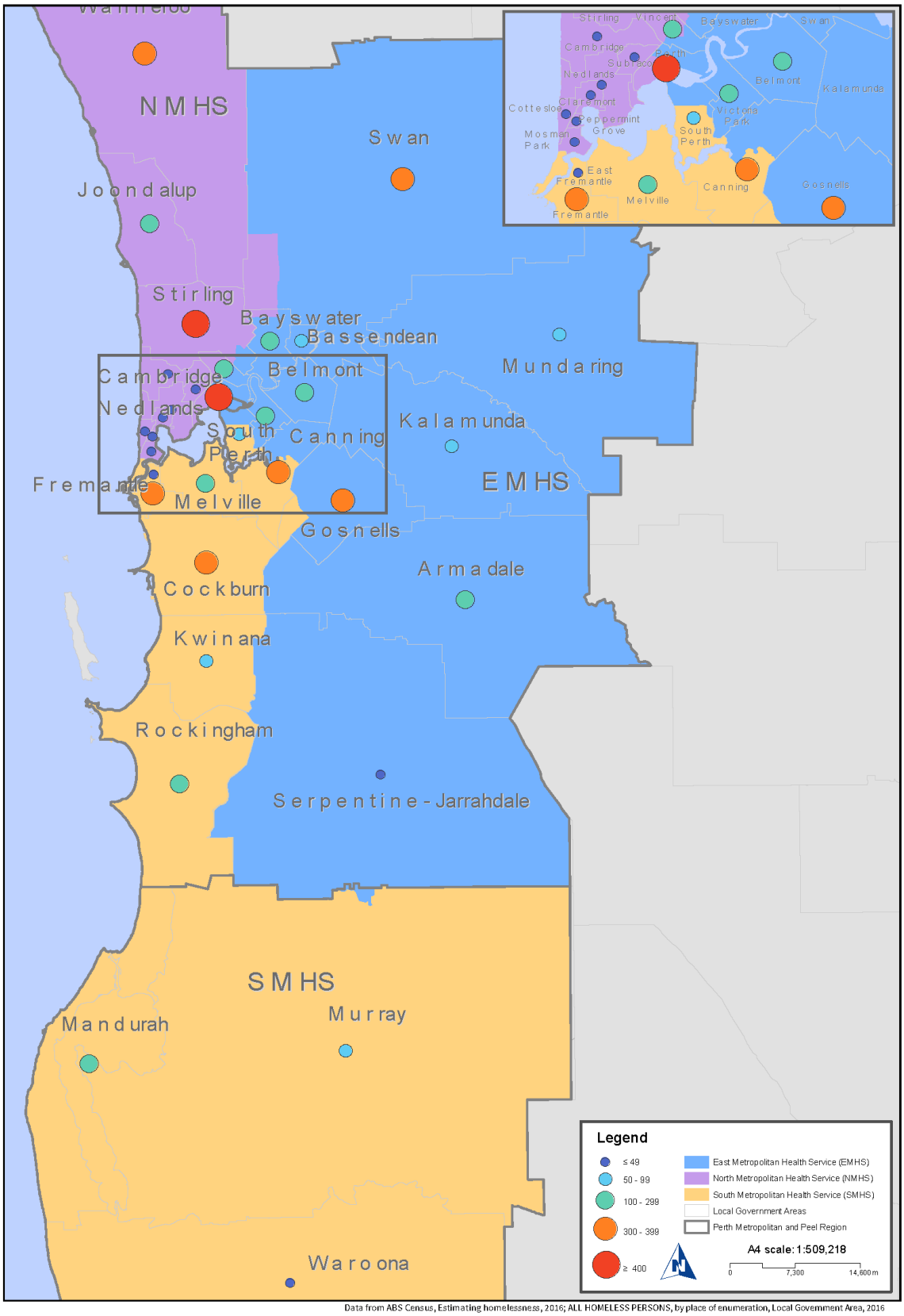

Figure 2: Homelessness in Perth

Produced by: The University of Western Australia Copyright © October 2018. Projection MGA94 Zone 50. Map by: Bridget Beesley

1.2 Homelessness and Health

People experiencing homelessness have multiple morbidities and chronic poor health, however, their access to primary care and preventative health services is much lower than the general population.[4] Barriers to accessing primary care often mean that medical care is accessed when their health has deteriorated substantially and requires more extensive and expensive treatment.[5] As a consequence, people who are homeless are far more likely to engage with the acute and more costly end of the health system.[4] The strong relationship between homelessness and poor health means that health cannot be viewed in isolation; both the causal pathways and the barriers and enablers to improving health for this vulnerable population group lie vested in socially determined factors (see Figure 3), ranging from trauma, housing, social isolation, early life experiences and addiction.[6]

Figure 3: Factors Influencing Individual Health Outcomes

Health and housing are inextricably linked, with mounting evidence conveying that stable and secure housing is, in fact, the most effective intervention to improve the health of people experiencing homelessness.[7]

The health burden attributable to homelessness in WA is colossal. For the 2014/15 financial year, for example, WA health data indicates that there were 31,654 inpatient days and 5,048 ED presentations attributed to patients coded as NFA (no fixed address) in WA hospitals, equating to a cost of $79 million in that year alone.[8] Of these, the mental health-related burden for NFA patients for the same period is conservatively estimated at $33.6 million, comprising 22,727 inpatient days for homeless patients with a principal psychiatric diagnosis and 2,013 mental health-related ED presentations in Perth hospitals alone.[8] Thus almost half of the costs associated with the treatment of homeless patients in WA can be attributed to presentations to metropolitan hospitals with a primary mental health diagnosis. People experiencing homelessness often cycle between

homelessness, poor health and hospital admissions, with deterioration after discharge leading to frequent readmissions and a further decline in health status (see Figure 4).

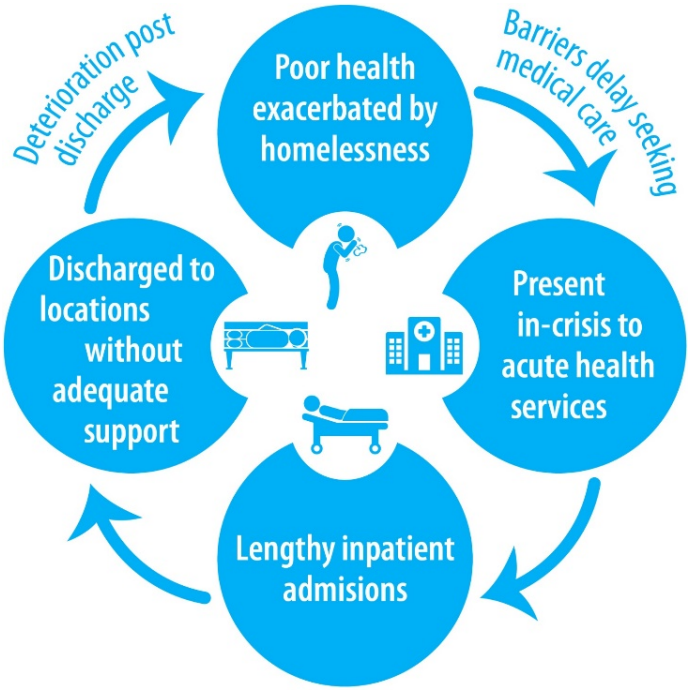

Figure 4: Rationale for Specialised Homeless GP Service Intervention

1.3 WA Policy Context Relevant to Homelessness and Health

There have been several key policy directions within the WA health sector over the last two years that have drawn sharper attention to the imperative to better address health inequalities experienced by people who are homeless. Each of these has a bearing on the rationale for the work of HHC:

WA Clinical Senate on Homelessness and Health. This was held in November 2016 and brought together a wealth of expertise from key academics, clinicians and community organisations to discuss the challenges involved in providing healthcare to people who are homeless and potential solutions.[9] HHC and the RPH Homeless Team presented to this Senate.[9] The Senate led to a series of recommendations to the Director General of the Health Department and the Minister for Health for health system reform and improvement.[9]

The Sustainable Health Review.[10] was instigated by the Minister for Health in June 2017 and commissioned a panel to advise the government on developing a more sustainable health system. The interim Sustainable Health Review Report[10] was released in February 2018 and highlighted some priorities and future directions of direct relevance to the health and wellbeing of people experiencing homelessness. In particular, the report noted the imperative to reduce health inequalities experienced by vulnerable population groups and improve integrated continuity of care, and the need for more consumer-focused models of care.[10] Furthermore, the panel called for the more efficient use of resources by providing more care in the community, specifically exploring different models for reducing ED admissions.[10] These recommendations align well with the community support model of healthcare provided by HHC.

WA Alliance to End Homelessness.[11] This is a growing coalition of community organisations and individuals committed to ending homelessness in WA and is an active player in the recently established

Australian Alliance to End Homelessness. In April 2018, the WA Alliance to End Homelessness (WAEHA) released its first iteration of a ten-year action plan to end homelessness in WA (The WA Strategy to End Homelessness).[11] The Strategy notes that chronic health issues, mental illness, trauma, and AOD dependence coalesce with entrenched disadvantage, domestic violence and unaffordable housing as the major contributing drivers of homelessness.[11] Conversely, the Strategy also posits that effective housing and homelessness programs can improve health and reduce mortality.[11]

10-Year Strategy on Homelessness for WA. All states and territories are now required to have a homelessness strategy as part of the new National Housing and Homelessness Agreement that came into effect in July 2018. The Department of Communities has been undertaking state-wide consultations as part of the development of the WA 10-Year Strategy on Homelessness, and the interface between health and homelessness was among issues raised at the recent Perth consultation. The 10-Year Strategy is also being informed by the recently released report on *Homelessness in Western Australia.*[12] The compounding inter-relationship between health and homelessness and the need for inter-sectoral solutions in WA has also been highlighted in this recently released report undertaken for the Department of Communities. As poignantly articulated in the reports opening chapter:

> *Homelessness is one of the deepest expressions of social exclusion and extreme poverty in Australian society. At its core, homelessness is a housing issue as it represents the lack of permanent secure housing. However, if we look only through a housing lens we miss the multi-dimensional nature of homelessness. Homelessness intersects with many other deep social, health and economic issues. Without addressing these issues alongside a housing response we will not be able to fully address the problem of homelessness.*[12(p1)]

1.4 Purpose of This Report

This first evaluation report for Homeless Healthcare aims to:

1. Describe the model of care and scope of primary care and support provided by HHC.
2. Document the demographic profile and health needs of current HHC patients.
3. Assess changes in hospital use (e.g. ED presentations, hospital admissions, length of stay) for two subsets of HHC patients:
    i) the most frequent presenters at RPH ED, and
    ii) patients who have been housed by 50 Lives and who receive support from HHC.
4. Identify gaps to be addressed in healthcare for people who are homeless in Perth.

1.5 Methodology

1.5.1 *Overall Study Design*

This report is part of a broader evaluation of HHC and the health, economic, social and wellbeing benefits of HHC services across a range of primary care, community and hospital settings. This report draws data from the larger mixed-methods study and uses a variety a qualitative and quantitative data sources, including Perth Metropolitan Hospital database (WebPAS) for the administrative hospital and ED data, HHC GP's clinical database (Best Practice) and, for the case studies, the VI-SPDAT database held by Ruah Community Services and observational data from HHC and RPH staff. Qualitative data was collected through in-depth interviews with a sample of HHC staff and patients. A short survey was also undertaken with organisations where HHC mobile clinics are held.

1.5.2 *Study Population*

While HHC has seen around 4,200 patients since it began in 2008, the study population for this report (see Figure 5) primarily focuses on two subsets of HHC patients, active patients (those seen at least three times in the last two years) and housed patients (housed through 50 Lives).

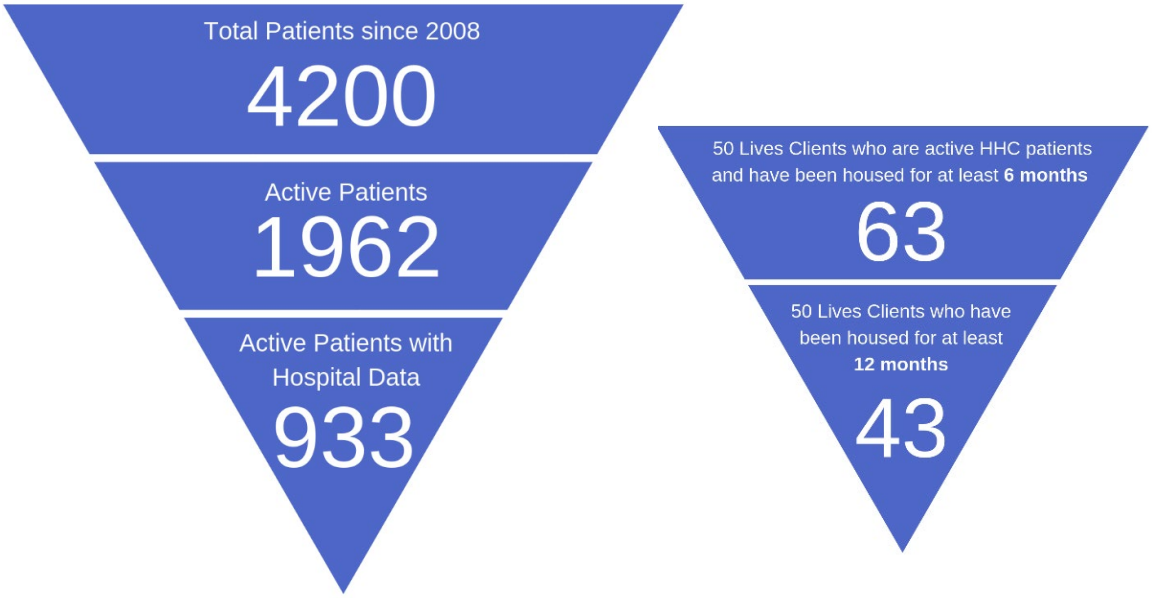

Figure 5: Study Populations for First HHC Evaluation Report

Photo 1: HHC Nurse Monitoring Blood Sugar Levels during Street Health Outreach

2 HOMELESS HEALTHCARE

It is futile to simply patch up the health of people who are homeless while their health continues to deteriorate without a safe and stable place to sleep or call home. – Dr Andrew Davies, HHC

2.1 Overview

Homeless Healthcare is a dedicated multi-site GP practice that has the dual aims of improving the health and welfare of people while they are homeless, and providing ongoing healthcare, support and connections to housing programs, to enable people to break the cycle of homelessness. A critical plank of the HHC Model of Care is to provide primary care in settings familiar to people who are experiencing homelessness. This is achieved through the operation of multiple mobile clinics run at drop-in centres, shelter and transitional accommodation facilities, women's refuges, and a drug and alcohol therapeutic community, with an additional mobile outreach service for people who are street homeless. For those housed through 50 Lives, there is an after-hours service that provides nursing care and social support in their homes via the After-Hours Support Service (AHSS). Since mid-2016, HHC has also provided an in-reach service at RPH hospital (the RPH Homeless Team), based on the UK Pathway model,[13] which involves hospital in-reach by a specialised homeless GP. For people who can access and attend scheduled GP appointments, there are also clinics at HHC's centrally located GP practice. Across all of its services, HHC staff work closely with the major homelessness services in Perth and prioritise housing as part of care.

Healthcare and support are provided by HHC to people across the spectrum of homelessness and risk of homelessness. This includes street present rough sleepers, people residing in crisis or transitional accommodation, and those who have been re-housed. The literature recognises that even when housed, people who have been long-term homeless remain vulnerable to loss of tenancy and continue to have complex health needs best met by a specialist homeless GP service that has already established patient trust and is familiar with their history.

> The first priority target group for this service is individuals who are experiencing or at risk of homelessness in and around the Perth Central Business District (CBD).
>
> The second priority target group for this service is individuals who have previously experienced homelessness in and around the Perth CBD.
>
> *Homeless Healthcare (2014) Preferred Service Provider, Request for Primary Health Services for People Experiencing Homelessness.*

The HHC Model of Care is grounded in a *'social determinants of health'* ethos with strong collaborative partnerships with homelessness, housing and social sector organisations. Connecting patients to stable housing is prioritised as an essential part of healthcare.

2.2 Service Delivery and Locations

Currently, HHC operates numerous mobile clinics, outreach services and other activities primarily in the Perth Central Business District (CBD) (Figure 6), but also in Gosnells where the Harry Hunter rehabilitation centre is located, and most recently, via an in-reach clinic in transitional accommodation in Fremantle. The mobile and multi-site delivery of care is intentional, as HHC seeks to provide as many contact points as possible for people to access the healthcare they require. In mid-2016, HHC commenced an innovative in-reach GP service at RPH, forming the RPH Homeless Team as a collaboration between HHC and RPH.

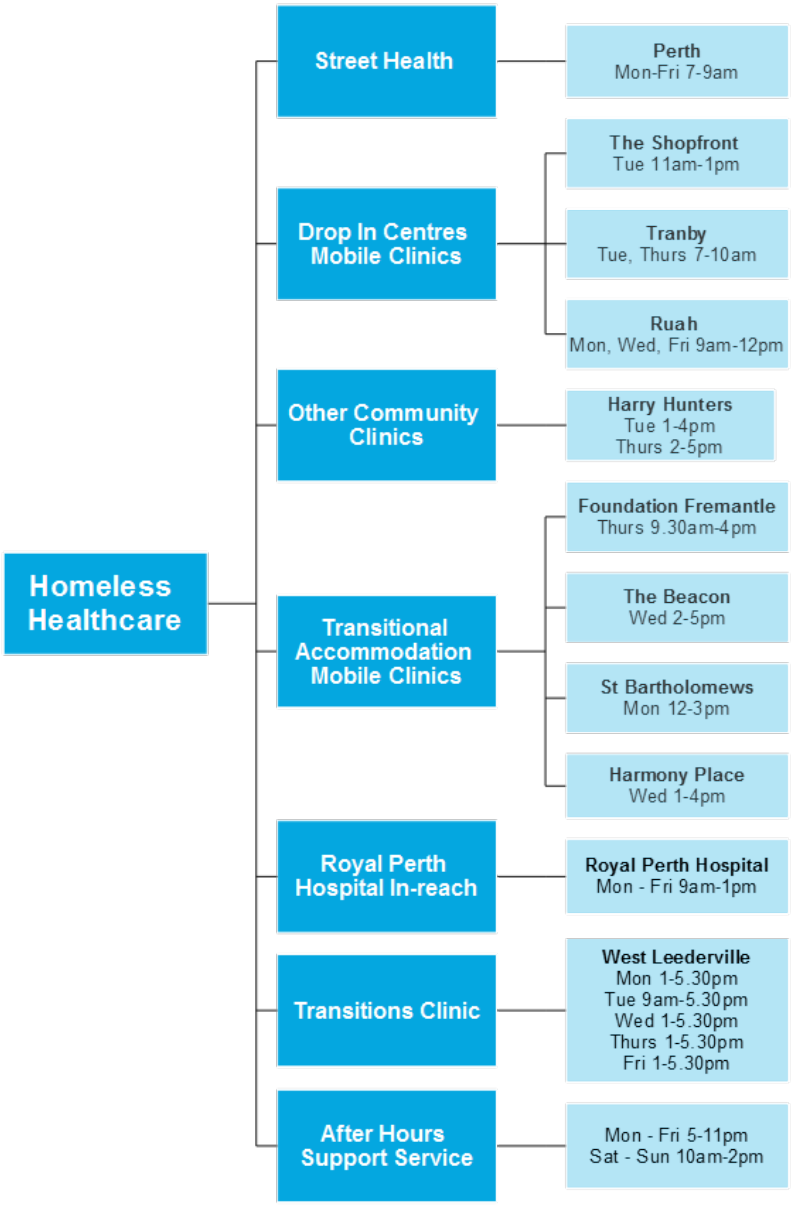

Figure 6: Homeless Healthcare Clinic Locations[1]

2.2.1 *Mobile GP Clinics*

A key component of the HHC Model of Care is bringing the services to where people are, and through its current WA Health contract, HHC provides 11 mobile clinics each week at seven different locations. An additional mobile clinic (funded by a philanthropic donation) commenced at Foundation Housing in Fremantle in June 2018.

[1] NB: As of November 2018, additional Mobile Clinics will be held at Passages (a youth homeless engagement hub in Northbridge) and Ruah Community Services in Fremantle, and an additional Street Health service will be provided in Fremantle.

2.2.1.1 *Drop-In Centre Clinics*

The Perth inner-city area has three drop-in centres frequented by people experiencing homelessness. These are places that provide a place for people to shower, socialise, have something to eat, and access support and advice from case workers present. The mobile GP clinics are run on scheduled days and do not require an appointment. Each clinic is attended by one or two practitioners (dependent on site) and a nurse. The drop-in centres see many of Perth's long-term rough sleepers, and HHC work with drop-in centre staff about connecting patients to temporary and transitional accommodation services and community AOD services. The drop-in centres are often the first point of contact with HHC for people who are homeless.

HHC Collaborating with Drop-in Centres
We had a client recently that HHC flagged as having fallen through the gaps and it was brought to our attention that no one was working with him. We then created a team of support around this client and with consent we were able to piece all the information and health concerns together to create a solid support plan and touch points for this client with the AHSS team. This led to the client being successfully accommodated and supported for five months. This would not have been possible without the joint effort of our organisation and HHC. – **Drop-in centre with HHC mobile clinics**

The convenience of being able to see a GP at the drop-in centres where other supports also exist has been noted by several HHC patients. One patient, for example, reflected the convenience of being able to shower and get a meal while they wait for a doctor at the drop-in centres:

> *…because a lot of the homeless people haven't got time to go to the hospital and the hospital makes you wait for hours and hours. Plus at the same time they give you a meal there. You get coffee sitting around waiting. You line up and they take your name down and while you're having your breakfast... They give you showers and all at Tranby. It's good. Ruah's the same…the doctors are friendly and like I say - they go to the centres… They go to where you are virtually. Most of the homeless go to these centres like Ruah and Tranby.* ***– HHC Patient***

2.2.1.2 *Mobile Clinics at Transitional Accommodation Facilities*

For people who are in transitional accommodation (such as The Beacon, St Bartholomew's House), the mobile clinics enable HHC staff to see patients more regularly, and to begin to address health and psychosocial issues that are difficult to tackle while someone is still sleeping rough.

Homeless Healthcare has also been active in assisting some of its patients to access transitional accommodation. The case study in Box 1 illustrates both the role of HHC in facilitating a referral to The Beacon and the way in which HHC was able to work with the patient to stabilise his health and address some of his more complex and inter-related health issues.

Benefits of HHC Mobile Clinics
We had a client who presented with an acute mental health episode and was expressing suicidal ideation—our staff were able to communicate concerns to the HHC GP who prioritised the case. An assessment was carried out and the client referred to a specialist mental health provider. This client was new to the service at the time and due to early intervention and ongoing support was able to continue to be accommodated in transitional accommodation for four months and continue to be supported by the HHC mobile clinic. **– Transitional accommodation with HHC mobile clinics**

Box 1: Case Study Mobile Clinics

Background

Tyson is a male in his mid-fifties who has been intermittently homeless for six years, spending most of that time as a rough sleeper. He has suffered trauma, substance abuse, persistent insomnia, and infections exacerbated by the challenges of personal hygiene while living on the street.

> *My foot went gangrene. It wouldn't have gone gangrene if I had a house… if I hadn't been homeless I would have been showering more often, taking care of myself, washing my toes…*

Across a three-year period (2015–2017), Tyson presented to the ED 24 times, had 30 general inpatient days and 27 psychiatric inpatient days. His costs for this period equated to $137,997.

Role of HHC

Tyson had not been engaged with any GP service prior to an RPH admission in mid-2017. During this admission, he was supported by HHC in-reach services as part of the RPH Homeless Team. Short-term backpacker accommodation was arranged post-discharge to help prevent reinfection. He was then linked with transitional accommodation at The Beacon. Tyson was then able to have regular GP appointments at the HHC mobile clinic run on-site at The Beacon, and this enabled diagnosis and management of his multiple health morbidities, including 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.

Current Health and Housing Situation

Tyson's health has improved substantially since HHC has supported him and he has had only one short admission to RPH since July 2017. Following The Beacon, he moved to long-term community housing and continues to be supported by HHC.

Note: Hospital costs based on the latest IHPA Round 20 figures for the 2015–16 financial year for WA.[8]

2.2.2 *Transitions Clinic*

The Transitions Clinic is located in West Leederville and provides a more structured clinic where people can come in by appointment. The Transitions Clinic allows HHC patients to have continuous medium- to long-term care with the same staff, maintaining trust and reducing the risk of returning to homelessness.

The goal of the Transitions Clinic is to link patients into mainstream health services. This clinic is attended by some patients who are now housed, along with patients who may still be in precarious housing circumstances, but who can attend scheduled appointments.

All staff at HHC (from receptionists through to nurses and GPs) have undertaken trauma-informed care training recently, and this is but one example of the efforts of HHC to ensure that, at all points of contact, anxiety for patients is minimised.

Photo 2: Transitions Clinic, West Leederville

Box 2: Case Study Transitions

Background
Walter is a man in his mid-fifties who has a long history of post-traumatic stress disorder after witnessing an accidental shooting. He has alcohol dependency, and this was exacerbated when he began rough sleeping.

Role of HHC
Walter initially saw HHC at one of the drop-in centre mobile clinics and now regularly comes to the Transitions Clinic. His engagement with HHC has enabled numerous health issues to be addressed, including treatment for alcohol dependency and commencement of medication for his PTSD and depression.

Current Health and Housing Situation
Walter was housed through 50 Lives and, though he still experiences multiple health issues, continues to engage with HHC for treatment of these.

2.2.3 *Street Health*

Street Health provides nursing care and support to rough sleepers in public places around Perth's CBD. It aims to address this group's lack of access to medical care by engaging rough sleepers where they are, in public spaces, rather than expecting them to present to medical facilities. Street Health recognises that many long-term rough sleepers have experienced trauma and often have co-existing mental health and AOD issues and can be wary of engaging with traditional health services or hospitals. The case study in Box 3 illustrates the importance of seeking out homeless individuals instead of waiting for them to access healthcare.

Photo 3: HHC Nurse Providing Wound Care during Street Health

Box 3: Case Study Street Health

Background
Chris is in his late forties and has been homeless for nearly a decade. In 2014, he scored 10 on the VI-SPDAT survey and reported having comorbidities of mental health and AOD issues. During 2017, Chris had multiple ED presentations relating to a cyst on his hip that was repeatedly infected over a two-month period. Chris initially approached Street Health who transported him to RPH for abscess draining and dressing. He returned to ED on four occasions for dressing changes in the days following the initial drainage at the hospital. The average ED visit in a Perth public hospital is costed at $765, equating to an estimated cost of $3,060 for dressing changes in the ED setting.

Role of HHC
He subsequently saw the Street Health nurses nine times over the next month to have his abscess wound dressed. As observed by Dr Amanda Stafford of the RPH Homeless Team, *"It has taken 6 weeks of dressings by Street Health and the wound has now completely healed".* Having his wound re-dressed by Street Health cost substantially less, with an average consult with the Street Health team costing $37 (compared with the cost of $765 for an ED presentation). Hence, nine visits with the Street Health nurse for his dressing changes totalled only $333, compared with a cost of $6,885 to the health system if he had presented at ED on these nine occasions.

Note: Hospital costs based on the latest IHPA Round 20 figures for the 2015–16 financial year for WA.[8] Street Health cost based on operating costs provided by Homeless Healthcare.

Five days a week, between 7 am and 9 am, an HHC nurse and an Assertive Outreach Worker from Ruah or Uniting Care West visit Ozone Reserve and Wellington Square. Basic medical care is provided out of the Street Health Van, such as wound dressing, blood pressure and blood sugar checks, with more serious conditions referred to the mobile GP clinics or RPH ED. Street Health nurses seek to build trust and rapport with rough sleepers and refer them to support and housing services where possible.

2.2.4 *RPH Homeless Team*

In response to the increasing demand that homelessness has placed on inner-city hospitals, and recognition of the revolving door many patients who are homeless are trapped in, the RPH Homeless Team was founded in June 2016. Based on the UK Pathway,[14] the multidisciplinary team represents a partnership between HHC and RPH and sees GP in-reach into the ED and wards where there are patients who are homeless.

The team links patients with existing community-based support, such as HHC GP clinics and Ruah Community Services, to enable social circumstances to be addressed alongside health issues. The majority (71%) of the patients engaged through the Homeless Team are rough sleepers, and many had no GP contact for many years.[14]

Photo 4: HHC GP and Nurse with Patient at RPH

2.2.5 *After-Hours Support Service*

In 2016, HHC was contracted by the WA Primary Health Alliance (WAPHA) to provide an after-hours service to former chronic rough sleepers housed through the 50 Lives Housing First program in Perth. The AHSS provides home visits and support for people to assist them with maintaining tenancies and improving quality of life. The team comprises HHC nurses and an outreach staff member from Ruah Community Services. They operate seven nights a week between 5 pm and 11 pm, and on weekends and public holidays between 10 am and 2 pm.

As reflected by one of the AHSS Nurses, by taking the time to build rapport with a patient in a non-confrontational environment, they have been able to make massive inroads with a patient over the past year:

> *He had a fall from a big height and now suffers from memory impairment and seizures…his condition wasn't well managed as he couldn't remember to go to all his follow-up appointments, and*

unfortunately he just lapsed into homelessness and was completely lost to all follow-up. He kept having seizures and reinjuring himself…Part of what we are doing is about encouraging him to take his seizure medication. He has a fear of hospitals and health professionals is petrified of the idea of taking medication. We have been engaging with him to some formal diagnoses and supports for daily living in place. It is hard for him as he is really independent, adverse to having people help him, doesn't want handouts. Over time we have built rapport and he has told us how frustrated he is about his injury, his memory impairment… gradually we can broach things like getting strategies to remember things from the occupational therapist who works with HHC. We have been able to build rapport and unpack things with him that you couldn't do in a hospital setting. That's the strength of after-hours! **– *AHSS Nurse***

The example in Box 4 illustrates the pivotal role of HHC nurses as part of the AHSS teams.

Box 4: Case Study After-Hours Support Service

Background

Cathy is an Aboriginal woman in her mid-forties with a complex history of homelessness, domestic violence, troubled family circumstances, and numerous health issues including cancer, lower limb amputation and alcohol/drug use; as well as anxiety and depression.

Role of HHC

HHC supported Cathy to address her multiple health issues, linked her with 50 Lives, and continued supporting her through the AHSS after she was housed. Over the last year, among varying health concerns such as her amputated leg, Cathy's custody case regarding her child has been the cause of considerable worry. Through AHSS, the HHC nurse has provided a steady combination of weekly home visits and telephone calls that proved extremely beneficial for her. Her anxiety has often been calmed, and her problems and burdens talked over with the help of the AHSS. One of Cathy's concerns was keeping it all together, both health and housing wise, and this AHSS support has been the mainsail for keeping everything on track.

Current Health and Housing

Recently, Cathy has described herself as doing *"really well"*. The steps towards this outcome were maintaining the positive trajectory of her mental health, continuing her sobriety and improving positive relationships with family. She has been supported to increasingly self-manage her conditions and has now transitioned from weekly contact to calling HHC only when she requires additional support.

2.2.6 *Location of HHC Patients*

While the current HHC contract with WA Health focuses on people who are homeless or have experienced homelessness in and around the Perth CBD—where the bulk of HHC current mobile clinics are delivered—active HHC patients live across a breadth of Perth suburbs and surrounding areas, transcending the WA health metropolitan health services boundaries. This is visually depicted in the mapping to the postcode level, the nominated 'addresses' of 1,931 active HHC patients (see Figure 7). By the very nature of homelessness, many patients have no fixed address (NFA), and it is pertinent to note that 786 of these active HHC patients were listed as NFA or provided a c/o address for a drop-in centre or some form of temporary accommodation. However, even for those with NFA, the nominated postcode provides some indication of where people are sleeping rough; for many, this was concentrated in the inner areas of Perth (Perth CBD, Northbridge, East Perth and Highgate), but there is also a sizeable cluster of patients with NFA nominating the Harry Hunter rehabilitation centre in Gosnells as their address.

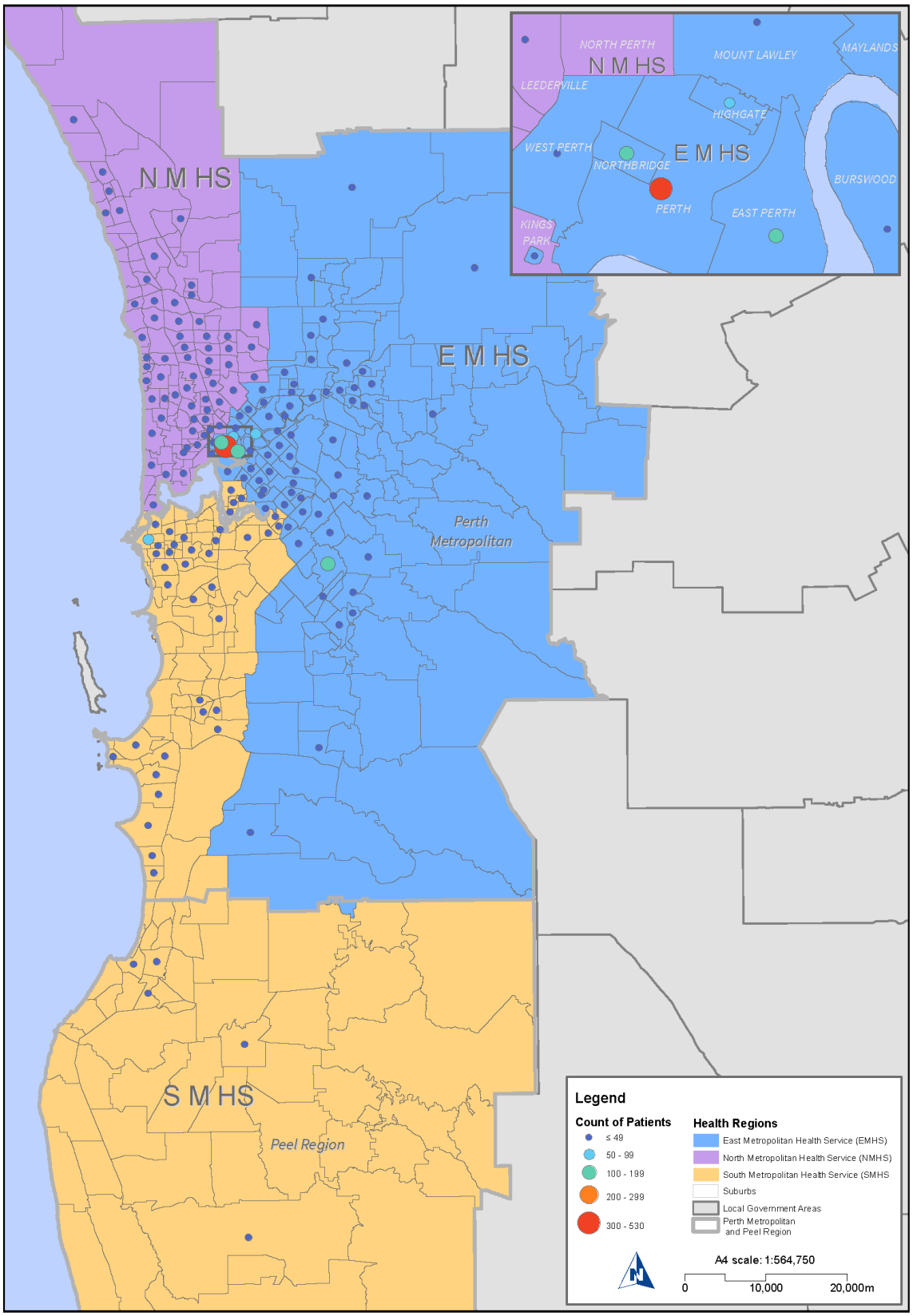

Figure 7: Map of Active HHC Patient Suburbs of Residence

Note: Of the 1,931 suburbs of residence mapped, 786 were listed as NFA or with a c/o for a drop-in centre listed.
Produced by: The University of Western Australia Copyright © October 2018. Projection MGA94 Zone 50. Map by: Bridget Beesley

There are several explanatory reasons for this spread of patients across Perth suburbs:

Homelessness in Perth is not solely concentrated in the CBD	As shown in the map in Chapter 1 (Figure 2), the 2016 Census statistics for Perth confirmed that homelessness is by no means concentrated in the CBD area alone and is spread across health service boundaries.
Itinerancy and Homelessness go hand in hand	People experiencing homelessness rarely live in one location or suburb and will often move around to find a safe place to sleep, and gentrification of inner-city areas has resulted in more people experiencing homelessness migrating to the suburbs. *As more buildings in Northbridge and the inner city get redeveloped or turned into gentrified properties, there are fewer places for people to sleep. So they move further out to the suburbs.* – **Case worker, NGO agency**
People often migrate to CBD in the daytime to access services including HHC	In interviews conducted with HHC patients, a number discussed sleeping rough outside of the CBD (often for safety) but spend the daytime in inner-city areas where services are located, and for social connections. This was observed in the 50 Lives project evaluation,[15] even once people were in stable, permanent housing, many gravitate back to the inner-city food services and drop-in centres where their social networks are located or to access centrally located services. *I have been sleeping out under a bridge in Maylands for about 3 years, but I come in here to go to the soup van, and can go to the Street Health van here if I need it. I have been offered accommodation but people can drink there, and I am trying to stay sober, so better to sleep under the bridge for now and it is safer out there.* **– Rough Sleeper, Street Health Van**

Homeless Healthcare seeks to be responsive to the changing location and demographics of people who are homeless in Perth, but funding limitations have constrained its capacity to offer more clinics outside of the inner Perth area (except Gosnells where Harry Hunter's rehab is located). Transportation is a major barrier to accessing healthcare; hence, one of the central components of the HHC Model of Care remains to bring services to where people are. Homeless Healthcare is active in advocating for the expansion of their service locations (see Chapter 6) and has successfully secured funding to start two new services in Fremantle from November 2018—a mobile clinic at Ruah's Fremantle Drop-in centre and a Street Health service. Of note, the North Metropolitan Health Service (NMHS) catchment has a high number of people who are homeless, but as yet, no dedicated homelessness GP or health services delivered in this area, except the AHSS outreach service to some 50 Lives clients housed within NMHS area.

2.3 The HHC Model of Care

The standard medical model in Australia does not encompass the harsh and complex realities of being homeless and often fails to recognise an individual's priority of meeting the immediate needs of survival versus addressing ongoing health issues.[16] As noted by Wise and Phillips:[17]

> *"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."*[17(p366)]

Reducing the health inequalities and providing primary care to people experiencing homelessness requires a unique approach that acknowledges and addresses the barriers to care they face. In this sub-chapter, we identify the eight central tenets of HHC's Model of Care (see Figure 8) for specialised homeless GPs.

Figure 8: Homeless Healthcare Model of Care

Patient Reference Group

In addition to this model of care, a patient reference group was established in 2017 to provide feedback to HHC on the provision of its services from patients with lived experience of homelessness. Coordinated by an HHC nurse, the group meets quarterly and currently has five members, including individuals with different cultural backgrounds.

2.3.1 *Recognise Underlying Issues*

> *"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. This constellation of underlying social issues challenges traditional clinical boundaries: they are not seen as "medical" problems although they are major determinants of health for people experiencing homelessness."* [16(p1535)]

One of the benefits of being a specialised homeless GP is the staff are aware of the complex issues faced by people who are experiencing homelessness. Evidence from Australia[18] and internationally[13,19] has shown that specialised services can increase patient engagement, which is one of the main challenges when working with homeless populations. Additionally, HHC has very strong connections within the homelessness sector, recognising many of the causes of ill health among this group are due to non-medical problems.[13,20] When working with people experiencing homelessness, practitioners need experience managing complex multi-morbidities, and need to be able to prioritise problems. It can overwhelm practitioners and exhaust patients if doctors try to solve everything in one consultation.[21] The ability of staff to work with patients in a non-judgmental way was noted by both partner organisation staff and patients themselves.

> *I think because they're less judgmental I think is probably the only way I can put it. You feel that because you've taken drugs, you've had drugs, you're put in a category. That's just me saying that from my point of view, but here [at the HHC clinic] when you talk about that you've got a smiley face looking at you. You've got someone that's not judging you. You've got someone that's wanting to help you.* ***– HHC Patient***

2.3.2 *Trauma-Informed*

There is a strong relationship between homelessness and experiences of trauma, hence psychiatric conditions such as depression and PTSD are common.[22,23] This contributes to the reason people experiencing homelessness often struggle to trust health practitioners and the system in which they work. This was noted by one HHC patient who had a previous horrible experience with a GP in the community who failed to acknowledge how hard it was for her even to seek help:

> *I reached out to a GP [not HHC]… said I need help, and this guy virtually didn't even look at me. He typed on the computer the whole time and he threw me a piece of paper and he said well you've got to go and have a blood test before we can do anything… it's hard enough to walk in there and admit you've got a problem. I'm lucky I had my dad there in the moment with me... Imagine a young person who really wants some help and they've got no family to turn to or no one to talk to and that's the only interaction you get that day. You can understand then why somebody walks out and the first thing they want to do is go and take more drugs because that's what you encounter.* ***– HHC Patient***

HHC strives to make all aspects of practice trauma-informed to gain trust, maintain engagement and ensure continuous, wrap-around care for this vulnerable group. As part of this commitment, all staff undertook a trauma-informed care course conducted by the WA Association for Mental Health in early 2018.

A specialist GP practice ensures the practitioners are aware of the issues facing people experiencing homelessness and can act in an informed way. For example, a physical examination is often an invasion of privacy and people experiencing homelessness find it particularly so. As a general rule, they will only examine a patient at the first consultation if necessary.

Box 5: Case Study Importance of Trauma-Informed Care

Background

Kylie had been homeless for the six months prior to entering transitional accommodation. At 50 years old, Kylie has a complex history of life stressors experiencing miscarriage, family suicides, an abusive partner, four-year methamphetamine addiction and separation from her children. When Kylie first attended the HHC clinic, she was in need of a review for sleep disturbances and iron deficiency.

> *I was anaemic before I came in here and I had to have an iron infusion because I was slowly basically just trying to - I was killing myself because I didn't want to deal with all these things.*

Role of HHC

Between mid-2017 and early-2018, Kylie was seen by HHC 14 times. She was treated for a range of conditions including, depression, panic disorder, anxiety, anaemia, sleep disturbance and heavy periods. HHC helped her to develop a mental healthcare plan, and this was one of the first opportunities Kylie had ever had to talk about her trauma and anxiety. A referral was eventually made to a psychologist, while she was also assisted with medication management and organising counselling sessions.

> *..you can be a doctor, you can be a psychiatrist, you can be all these sort of people, and you can have the degrees on the wall, but unless you've got that empathy for people you're not going to get through to a lot of people, especially a lot of the people that [my partner] and I have met.*

Current Health and Housing Situation

Kylie and her partner have since moved into a unit with the Community Living Program and are well. She is case-managed by the Salvation Army outreach team, and she has been coming to The Beacon for counselling sessions regularly.

2.3.3 *Bring Services to Where People Are*

People experiencing homelessness face significant barriers that prevent them from accessing primary health services. Lack of affordable transport and higher priorities (i.e. finding food and shelter) results in people ignoring health issues until they develop into acute crises requiring ED presentation or admission.[17] Bringing services to places already frequented by people experiencing homelessness allows them to access healthcare without ignoring other priorities. Establishing clinics within drop-in centres easily and already accessed by people experiencing homelessness is one of the strategies HHC have employed to try to address this barrier. Unfortunately, some people experiencing homelessness are so disengaged from society that they do not visit drop-in or support services. People who are sleeping rough are notoriously difficult to engage in a traditional medical model of healthcare.[16] Most rough sleepers have had traumatic life experiences, compounded by negative experiences with health services that do not understand or adapt to their specific and complex needs.

> *The nurses are awesome. There's a program in the morning, the Salvos, they come to the park here and the nurse comes with them. You can get a check-up, I can get my sugar taken. They have things like toiletries and stuff. You have a cup of tea and they just talk to you and stuff.* ***– HHC Patient***

2.3.4 *No Cost to Client*

Most people living in homelessness rely on either weekly or fortnightly Centrelink payments for survival, and some don't have the requisite ID even to get this. If they are fortunate enough to be in temporary accommodation or public housing, this typically takes 85% of their Centrelink payment, leaving very little for food and other basic needs. Therefore, out-of-pocket expenses, no matter how small, create a significant barrier for people experiencing homelessness.

> *…because RPH just literally down the road. I said please, please can I just walk down because the last ambulance cost me $800.* ***– HHC Patient***

2.3.5 *Continuity of Care*

> *"…to improve person-centred approach to services and ensure our most vulnerable people do not fall between the cracks"*[10(p28)]

The recent Sustainable Health Review brought to attention the need to improve the continuity of care within the WA health system, particularly for vulnerable people who can get lost when being referred between different parts of the system.[10] The transient nature of the homeless makes comprehensive medical care difficult. Referrals and effective follow-up are often impossible, and people experiencing homelessness are often lost to follow-up when moving from one part of the system to another. The result of fragmented and discontinuous care in this population is the progressive deterioration in health and greatly shortened life expectancy. These issues can be reduced by having a specialist homeless service working across as much of the system as possible. However, often discontinuous care can occur for no other reason than the people working with the homeless person have changed, and trust is lost. HHC strives to have the same practitioners, nursing and reception staff working across as much of the service as possible. HHC believes working with people experiencing homelessness should be a career choice and not something done on a part-time basis to supplement another career. Furthermore, strong links to the homelessness sector ensure the continuity of care is maintained for housing and other support.

> *I found for me having the three services, After-Hours, the [Ruah] day centre and the Homeless Healthcare GP, they're all not judgmental, and therefore you're not under the pump, they're really there to help you so it's massive. And they're all connected so they know what's going on without going against your privacy so you don't get a pop quiz all the time. –* **50 Lives Client**

2.3.5.1 *Synergies of HHC Working Across Multiple Settings*

The mix of mobile clinics, Street Health outreach and in-reach services at RPH enable patients to have continuity in their healthcare, regardless of changes in their living or life circumstances. This continuity of support allows patients to build trusting relationships with HHC staff and ensure that patients are linked with the appropriate services so that their health needs are met. Due to the transient nature of individuals experiencing homelessness, patients can access the services at whichever clinic they can make it to and still receive their usual care, allowing for continuous treatment.

> *I've been in and out of them every so often. I've been to the one in Leederville. I've been to the Northbridge one as well, the Ruah Centre.* ***– HHC Patient***
>
> *If you're unable to see a doctor here then we get told to go across to [Tranby's]. They've got a doctor there every Thursday, Friday… I've gone a couple of times. But it's the same doctors. I was quite surprised by just the accessible it is to see a doctor and psychologist and all that. It's been good. –* ***Beacon Resident and HHC Patient***

Box 6 below provides an example of a patient who was first seen by the team at Street Health before being referred to RPH for treatment.

Box 6: Case Study Working Across Multiple Settings

Background

Beth is an Aboriginal woman from a remote community who is in her early fifties. She has cognitive impairment (mix of long-term alcohol dependence and traumatic brain injuries) and primarily speaks her local Aboriginal language with limited English. Beth has been street homeless for several years, and regularly rough sleeps in parks.

Role of HHC

In mid-2016, Street Health noticed a large ulcer on her lip, which they suspected to be a cancerous lesion as it was growing with no signs of healing. Homeless Healthcare coordinated appointments with the plastics clinic at RPH and ensured that Beth attended. A biopsy confirmed cancer, requiring surgery. A coordinated effort with community services was undertaken to ensure that Beth completed the complex series of outpatient investigations needed for planning her surgery. As a result, she did not require any inpatient admissions for investigations and was admitted only for her surgery.

However, due to complex life circumstances, her alcohol dependence and the lack of an appropriate place to recuperate (such as a Medical Recovery Centre), she was admitted as an inpatient for a month post-surgery to enable the wound to heal properly.

Fortunately, the early detection of Beth's cancer and rapidly coordinated treatment enabled the cancer to be removed in a single operation with follow-up care provided by HHC.

2.3.6 *Medium to Long-Term Care*

Many people experiencing homelessness have complex, chronic health conditions that require ongoing management and support, including severe and persistent mental health conditions. Even once housed, many patients will continue to require medium- to long-term care.

The Transitions Clinic in West Leederville allows HHC to continue to provide more structured care to people who have been recently housed or are in a stable enough situation to be able to maintain appointments. For one patient who was about to move from transitional to permanent housing, they were relieved to be able to access the Transitions Clinic to continue their treatment with the same practitioners.

So we're still allowed to go there so that will give me a sense of relief because I didn't' want to have to start again because I've held a lot of this stuff in for over 20 years. It was nice to meet someone that I could finally talk to, and I don't - I couldn't start again. I couldn't go back to that vulnerable thing. – ***HHC Patient***

2.3.7 *Referrals to Housing and Other Supports*

2.3.7.1 *Housing*

> *"Addressing homelessness is, itself, an important form of healthcare, not a separate "non-health" issue."* [16(p1535)]

At the core of a homeless person's poor health and high utilisation of the acute hospital sector is the absence of a safe and secure house in which to live.[7] Hence connecting people to housing and accommodation is a critical part of HHC's social determinants of health approach. This encompasses short-term crisis accommodation (e.g. Tom Fisher House), referrals of patients to transitional accommodation options (such as St Bartholomew's and The Beacon), and administering the VI-SPDAT[24] with patients to assess their eligibility for 50 Lives.

International evidence indicates that the best way of housing someone who has been chronically homeless is through a Housing First model. Contrasting with treatment first models (i.e. usual care), Housing First not only facilitates access to housing, but the model subsequently attempts to engage individuals in mental health and AOD services.[25,26] As part of the model, support is offered to the individual to assist them in maintaining their tenancy and address issues that might otherwise see them return to homelessness.[27]

Box 7: Case Study Referral to Housing

Background

Gregory is in his mid-forties with a diagnosis of schizophrenia dating back to the 1990s. He had historically very little contact with psychiatric services. By 2009, he was street homeless and, after two brief psychiatric admissions, was placed in a psychiatric hostel, but soon returned to the streets. For nearly three years, there was no record of any psychiatric care. He presented to ED sporadically in 2014–15 with complaints such as sore feet, but although he was noted to be living on the streets and schizophrenic, he was discharged back to the street each time.

Role of HHC

Gregory was first detected by Street Health in early December 2015 with a large abscess on his back. Initially reluctant to accept treatment, the abscess worsened, and he agreed to be admitted to RPH ED. During this admission, he underwent a psychiatric review and subsequently received his first injection of antipsychotic medication in three years. The psychiatric team discharged him with an arrangement for GP follow-up with HHC for voluntary treatment with depot antipsychotic medication. However, he refused any further medication, and HHC actively advocated for admission to enable his schizophrenia to be treated. In late December 2015, he was admitted to a mental health unit where he spent five months (141 days) receiving treatment, including antipsychotic medication. Over these months, his psychosis slowly resolved and he was discharged to a supported psychiatric hostel. It emerged that he had a wife and children from whom he had become estranged due to his illness.

Current Health and Housing Situation

Through 50 Lives, Gregory secured a place in supported accommodation for people with chronic mental illness and has now resided there for two years.

Homeless Healthcare has been advocating for such a model in Perth since its inception and has worked closely with Ruah Community Services and the broader homelessness sector to get 50 Lives (Perth's first

Housing First program) off the ground. Homeless Healthcare was the first agency to join the collaboration after Ruah (who are the backbone support organisation for the program) and currently plays an active role in the steering and working group meetings.

The evidence for the cost-effectiveness and improved health outcomes of a Housing First approach continues to grow.[28-30] Studies internationally and in Australia demonstrate significant reductions in ED presentations and inpatient length of stay when housing is coupled with wrap-around support for homeless individuals.[31-34] Other studies have shown that providing supportive housing can reduce the days/nights spent in psychiatric hospitals and non-psychiatric hospitals.[35-37]

2.3.7.2 *Referrals to Other Health Services and Support*

For patients needing more specialist healthcare, or who present with an issue that is beyond the scope of the GP practice, HHC provides referrals to numerous services including counselling and other allied health services, AOD services, financial services, homelessness services, specialist medical services and hospital ED, when appropriate.

> *After-hours referred me to the women's health centre on Newcastle Street when I had diagnosed with fibroid in my uterus. I'm still in the process of getting treated for that.* ***– 50 Lives Client***

Linking patients with allied health services is also an important part of the HHC role. Some of this is provided on-site at HHC clinics, as this builds on the trust and familiarity already established with patients in these settings and reduces the likelihood of patients not following through with referrals to external services. Currently, HHC is collaborating with a physiotherapist who attends one mobile clinic per week (2 hours) and a podiatrist (3 hours per week), counsellor (11.5 hours per week) and mental health occupational therapist (2 hours per week) who provide services at the Transitions Clinic.

2.3.8 *Collaborations with Homelessness Sector*

It is vitally important that the specialised homeless GP has strong links to the homelessness sector. HHC GPs have noted that the more embedded the practice has become with the sector, the better the outcomes that can be achieved for individual patients. Conversely, there are also collaborative benefits for the settings in which HHC provides its mobile clinics, as shown in the two collaboration examples here.

Collaboration Vignettes

One of our clients was a rough sleeper who lost their most recent accommodation. The client was linked with HHC; medical support was provided to enable the client to be accommodated in transitional housing. The client was offered transitional accommodation that day and still maintains this. **– Drop-in centre with HHC mobile clinics**

A client in our transitional accommodation was very unwell and had major mental health concerns. The HHC GPs were able to contact RPH and the Police and get the client into psychiatric care in a dignified and human way. This averted the need for the client to be evicted with police presence and restraint used. The individual is now back at our service, stronger and at a place where he can receive from the service counseling, therapy, music, etc., to assist him back to wellness. He is back in a community that cares for him and he was welcomed back. – **Transitional accommodation with HHC mobile clinics**

Homeless Healthcare is extremely active in collaborating with the wider homelessness sector. Current examples include its involvement on the 50 Lives Steering Committee and its rough sleepers working group, participation in the recently established working group exploring the feasibility of a Common Ground model for Perth, and participation in the development of the WA Alliance to End Homelessness strategy.

Close partnerships and collaborations with other services in the homelessness sector allow HHC to achieve the best possible outcomes for their patients; this includes advocacy for patients to obtain suitable accommodation and access to other supports (see Box 8).

Box 8: Case Study Collaborations with Homelessness Services

Background

Daniel is a male in his mid-fifties who has experienced two decades of homelessness. While rough sleeping, he most frequently slept in parks in the Perth CBD, where he was victim to attack on multiple occasions and engaged in self-harm. In 2016, Daniel scored 12 on the VI-SPDAT, indicating high vulnerability. He had been homeless and housed again five times in the three years preceding the survey. Daniel has a history of incarceration, both in youth detention and the adult prison system. At 15, he experienced extreme trauma, witnessing the death of a friend as they were trapped in a motor vehicle following a head-on collision. Daniel's poor health profile is consistent with that of other individuals who have experienced long-term homelessness. He has had ongoing issues with his mental health and drug and alcohol abuse and was heroin dependent for more than 30 years. Daniel has also developed alcoholic liver disease which has led to hepatocellular cancer, and has emphysema due to his ongoing tobacco dependence, as well as being positive for hepatitis C.

Role of HHC

Daniel's first contact with HHC came in 2016 through the Ruah mobile clinic, and he continued to be seen every few days throughout 2016 and 2017. HHC provided Daniel with general advocacy support, assistance with his housing needs and basic medical care, which continued once he was housed at The Beacon. When Daniel underwent major surgery at RPH, HHC supported him through his inpatient stay and worked to manage his infection and long-term wound care. During this time, HHC also supported Daniel with his mental health concerns. Liaison between RPH and HHC ensured that Daniel was able to stay in crisis accommodation pre-operation and remain in hospital until he had appropriate housing for discharge. This included advocacy on his behalf to engage him with Centrelink and Ruah during his inpatient stay.

Case conferences were held between HHC, Ruah, RPH Homeless Team, Street to Home and mental health outreach services to help Daniel secure housing and access his superannuation. With their assistance, he was able to move into his community housing apartment in August 2016, with Ruah also supplying him with white goods to aid the move. His initial hospital experience left him traumatised to the extent that when his wounds become infected post-discharge, he refused to return to the hospital or call an ambulance. His infection became so severe that it nearly resulted in his death. However, representatives from HHC were able to call an ambulance on his behalf and reassure Daniel through the process. Post-discharge from this admission, AHSS provided ongoing wound care and assistance with his nutrition as he had become severely underweight.

Current Health and Housing Situation

He continued to be supported by HHC, although his contacts decreased considerably as he became increasingly stable in his living situation. Daniel successfully applied for rent assistance and moved to private rental accommodation in his hometown located in the Midwest.

3 PATIENT DEMOGRAPHICS AND NEEDS

Health and wellbeing for all can only be achieved if those currently at the margins of society are counted, specifically targeted with appropriate interventions, and included in all available services....[38(p179)]

Since 2008, HHC has provided healthcare to over 4,000 patients through its various mobile clinics and street outreach service. This chapter outlines key demographic characteristics for active HHC patients—those who have had GP visits with HHC at least three times in the past two years (n=1,962). It is pertinent to note that there are an increasing number of people accessing drop-in centres and transitional accommodation who have not previously been linked with a GP. In a recent survey, transitional accommodations providers that host HHC mobile clinics estimated that, on average, they had 131 new clients per month without a GP. Drop-in centres that host HHC mobile clinics estimated that they had 40 new clients per month that were not receiving primary care. As outlined in this section, HHC patients experience high levels of vulnerability and adverse psychosocial circumstances.

3.1 Demographics

Of active HHC patients, nearly two-thirds were male (65%), with 34% of patients identified as female and 1% as transgender (See Table 1). Overall, 20% of active HHC patients identified as Aboriginal or Torres Strait Islander, compared to the 2.8% of people who identify as Aboriginal or Torres Strait Islander within the general Australian population.[39]

Table 1: Patient Demographics Active HHC Patients

Active HHC Patients (n=1,962)		n (%)
Gender	Male	1,290 (65)
	Female	655 (34)
	Trans	17 (1)
Aboriginal and Torres Strait Islander		389 (20)
Non-Aboriginal and Torres Strait Islander		1,161 (59)

Most of the active patients seen by HHC are between the ages of 25 and 64 years (89%), with 8% under 25 years and 3% aged 65 or over (Figure 9).

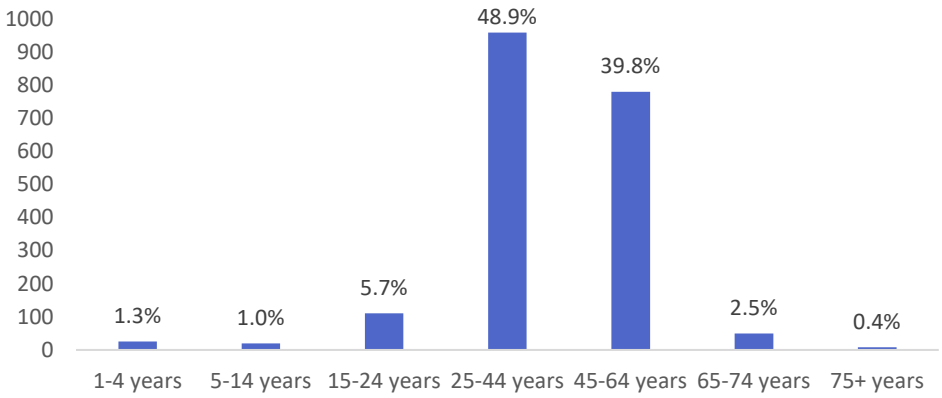

Figure 9: Age Ranges of Active HHC Patients

3.1.1 *Smoking Status*

Australia has one of the lowest smoking rates in the world, with only 11% of the adult population estimated to smoke either regularly or occasionally.[40] However, smoking is strongly associated with socio-economic and psychosocial disadvantage and the international literature suggests that people experiencing homelessness have significantly higher smoking rates than the general population[41-43], and unfortunately Australia is no different. Of the active HHC patients who had smoking status recorded, the vast majority were daily smokers (81%), with 9% having previously smoked (Figure 10). This is considerably greater than the general Australian population rate and, given the enormous negative consequences smoking has for health, further entrenches the worse health outcomes of people who are homeless. Contributing to this burden is the expense and limited availability of the full variety of Nicotine Replacement Therapies (NRT). Patches are subsidised on the Pharmaceutical Benefits Scheme (PBS); however, people are currently only able to access one PBS-subsidised 12-week course of nicotine patches (one original 4-week script plus two repeats) per year or two courses for Aboriginal and Torres Strait Islander people. As discussed in Figure 11, this inflexible approach to affordable NRT presents significant barriers to successful cessation among people experiencing homelessness.

> *Every person, whether they are accessing a hospital, an alcohol and other drug treatment service, a mental health service or homelessness service should be asked about their smoking, and should be offered free and unrestricted access to evidence-based pharmacotherapy to support their nicotine dependence. If this were done routinely and consistently across all services, we'd see an enormous impact on outcomes for treatment, health and other areas of disadvantage in those who need the most support.* **– Cancer Council WA**

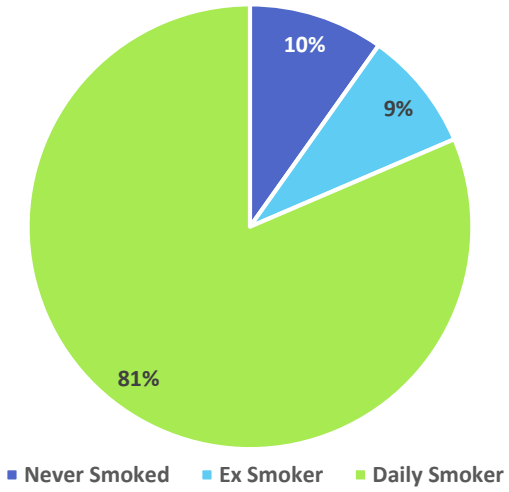

Figure 10: Smoking Status Active HHC Patients

Note: n=1,374 patients with recorded smoking status, n=550 not recorded

For people experiencing homelessness, there are often substantial barriers to smoking cessation and the healthcare providers supporting them through these attempts. As shown in Box 9 and Figure 11, competing priorities, mental health comorbidities and high levels of transience can complicate cessation attempts.

Box 9: Case Study Smoking Cessation Attempt

Background

Len is a 37-year-old man who cycled in and out of homelessness for six years. He most often lived in a squat, which negatively impacted his physical and mental health conditions. He has complex medical conditions including chronic obstructive pulmonary disorder (COPD), asthma, mobility impairment, anxiety and depression. Between 2015 and 2017, Len presented to the ED 35 times and had 26 inpatient admissions with a total length of stay of 85 days. His hospital presentations have predominantly been due to breathing difficulties resulting from asthma and COPD, as well as obstructive sleep apnoea.

Role of HHC

Len first became a patient of HHC in 2011, and he has been seen by HHC on 99 occasions, mostly in its community-based clinics. Co-morbid mental health and respiratory issues dominate his contacts with HHC. He has attempted but struggled with smoking cessation.

Smoking cessation: Len's bare facts

- Smoked 30 cigarettes a day.
- Prescribed a full battery of medications over the years to manage smoking cessation and respiratory-related issues, especially chronic asthma and COPD.
- Cessation first consult with HHC in 2012.
- Second attempt in mid-2017.

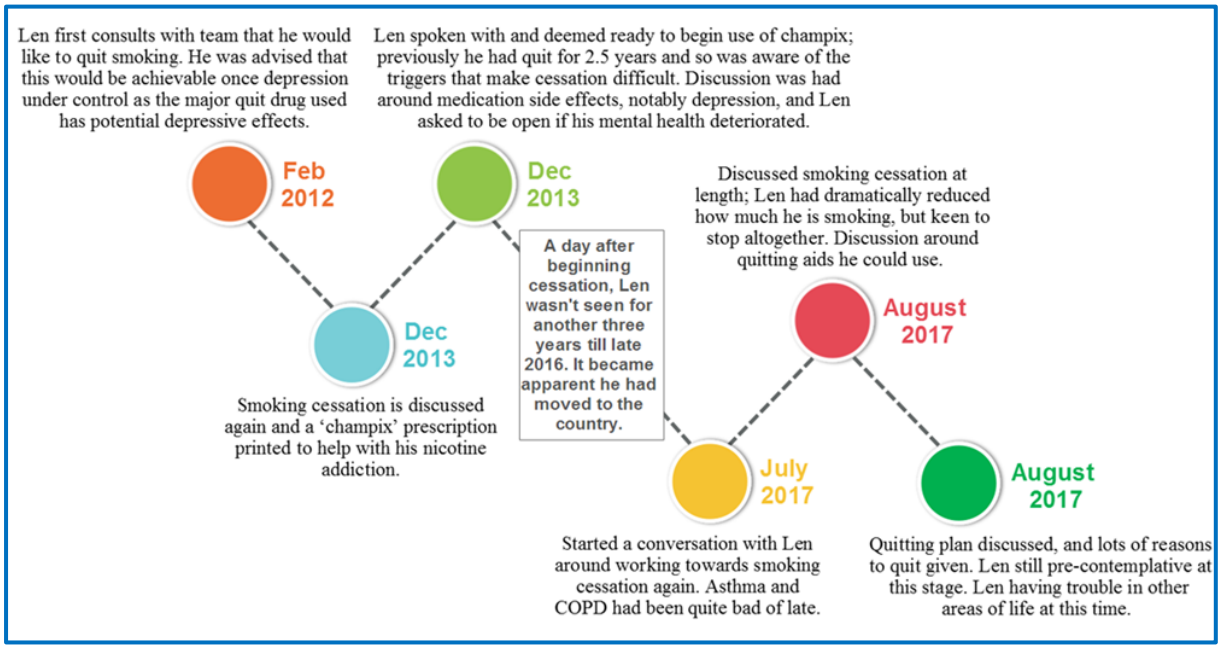

Figure 11: Timeline of Smoking Cessation Attempt

3.1.2 *Overweight and Obesity*

People experiencing homelessness face significant barriers to obtaining adequate food of acceptable nutritional value.[44] Food distributed through homelessness services is often high in fats, sugars and salts and contributes to growing levels of overweight and obesity among people who are homeless.[44] Overweight and obesity are significant issues for HHC patients, both as health issues in of themselves and compounded with other comorbidities (Figure 12).

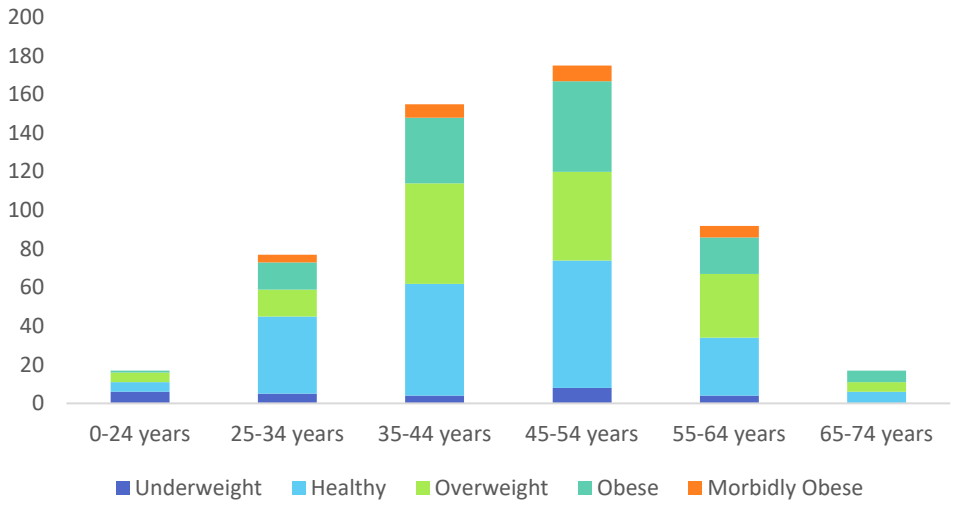

Figure 12: Overweight and Obesity Active HHC Patients

Note: n=558 patients with recorded Body Mass Index, n=1,404 not recorded

3.1.3 *Alcohol Consumption*

Alcohol consumption is associated with significant morbidity among people experiencing homelessness.[45,46] Of the active HHC patients who had alcohol consumption status recorded, just over half reported consuming alcohol (51%), while the other 49% were non-drinkers (Figure 13).

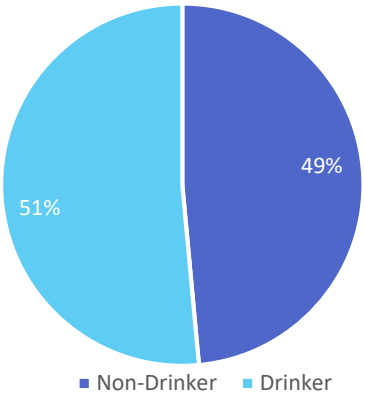

Figure 13: Alcohol Consumption Active HHC Patients

Note: n=1,057 patients with alcohol consumption status recorded, n=845 not recorded

> We see people that don't necessarily want… to go to a formal rehab program but they have problems with alcohol or other drugs. Our specialist GPs have that extra experience and training in drug and alcohol … Also, treating the underlying anxiety and depression, bipolar, whatever, schizophrenia—a lot of schizophrenics just drink themselves into oblivion so they don't have problems with the voices. So treating their underlying problems and also that counselling that GPs do so well and some of the more specialised medications like Baclofen, that's other ways that you can address those drug and alcohol things. – **HHC Nurse**

3.2 Health Needs of HHC Patients

People who are homeless have significantly worse health outcomes than the general public, and these are compounded by the experience of homelessness.[47] There are very high levels of tri-morbidity, co-occurring physical, mental health and AOD issues among people experiencing homelessness, which lead to extremely complex health profiles and frequent use of acute health services.[48,49]

3.2.1 *Physical Morbidity Burden*

The majority of HHC patients have multiple serious health conditions. Among active patients, the most common physical health conditions they presented with were asthma, hypertension, type II diabetes and osteoarthritis (Figure 14).

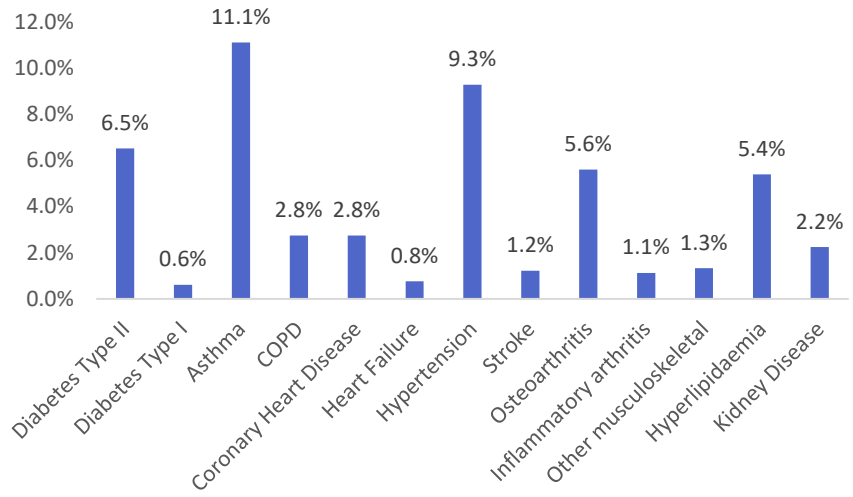

Figure 14: Percentage of Active HHC Patients with Physical Conditions

Visits to HHC related to the treatment and management of asthma, hypertension, type II diabetes and osteoarthritis accounted for nearly a quarter of contacts with active patients (Figure 15).

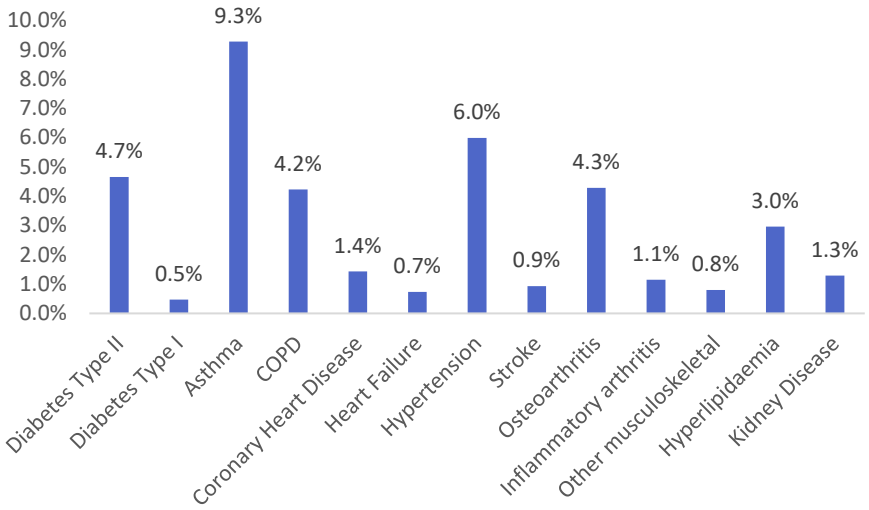

Figure 15: Percentage of Visits for Physical Conditions in Active HHC Patients

3.2.2 *Allied Health Services*

There is a significant unmet need for allied health services among HHC patients. While HHC does refer patients to the physiotherapist, podiatrist, counsellor and mental health occupational therapist who provide services at HHC clinics, these appointments are often full, with insufficient funding to increase service hours. Additionally, service providers can only bill for a limited number of appointments through Medicare, and patients' conditions often require additional appointments. The podiatrist currently working with HHC holds appointments with patients who have exceeded their five visits on a voluntary basis.

3.2.3 *Cancer Screening*

People experiencing homelessness face significant barriers to participating in screening programs.[50] HHC patients have very low rates of screening for colorectal and breast cancer and, as shown in Figure 16, participation in cervical screening is particularly low. Only 7% of eligible HHC patients receive appropriate cervical cancer screening compared to 56% of the eligible general population.[51] Of the 93% of eligible patients who had not received adequate screening, there was no record of screening for 89%, with a further 4% of patients overdue for screening. Within the patients who received cervical screening, 6% were HPV positive. This is not a reflection of GP neglect but exemplifies the complexity of this cohort group. Women who have been affected by family and domestic violence or sexual abuse, for example, can find procedures such as these very traumatic. As discussed in Chapter 6, there is a need for a more tailored women's clinic grounded in trauma-informed principles to redress the enormous deficit in preventative screening among this vulnerable cohort.

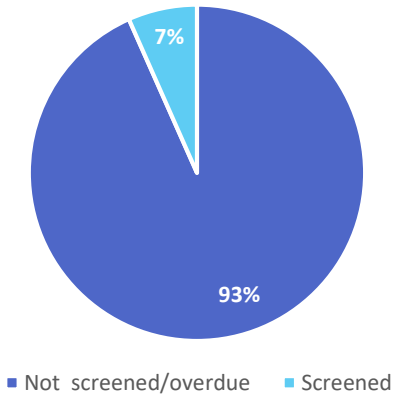

Figure 16: Cervical Screening in Eligible HHC Patients

3.2.4 *Psychiatric Conditions*

There is a close relationship between mental health and homelessness; untreated conditions often precipitate homelessness, and homelessness itself is a significant risk factor for poor mental health.[45] Psychiatric conditions are common among active HHC patients, with depression (35%), anxiety (32%), schizophrenia (9%), bipolar (7%) and Attention Deficit Hyperactivity Disorder (ADHD) (4%) the most frequent conditions (Figure 17).

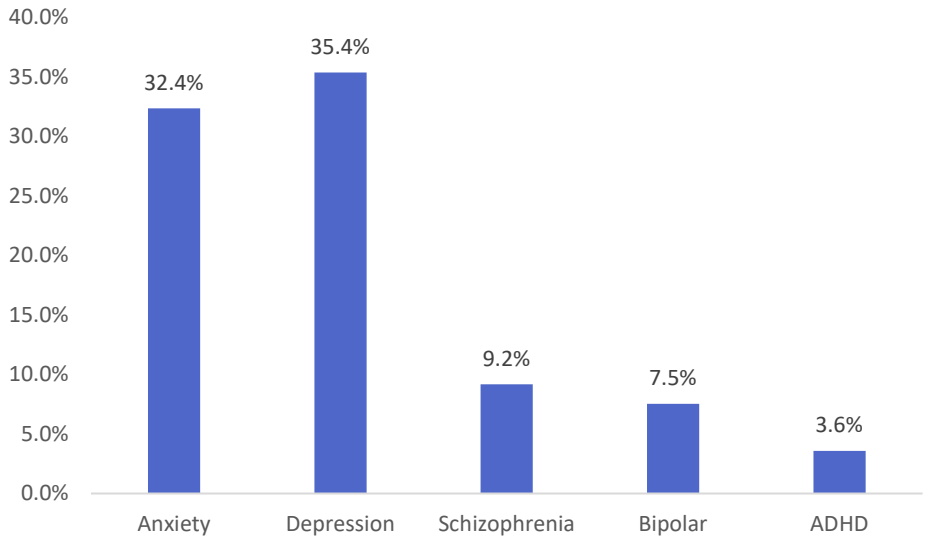

Figure 17: Percentage of Active HHC Patients with Mental Health Conditions

Anxiety and depression account for the majority of visits among active HHC patients related to mental health conditions (Figure 18).

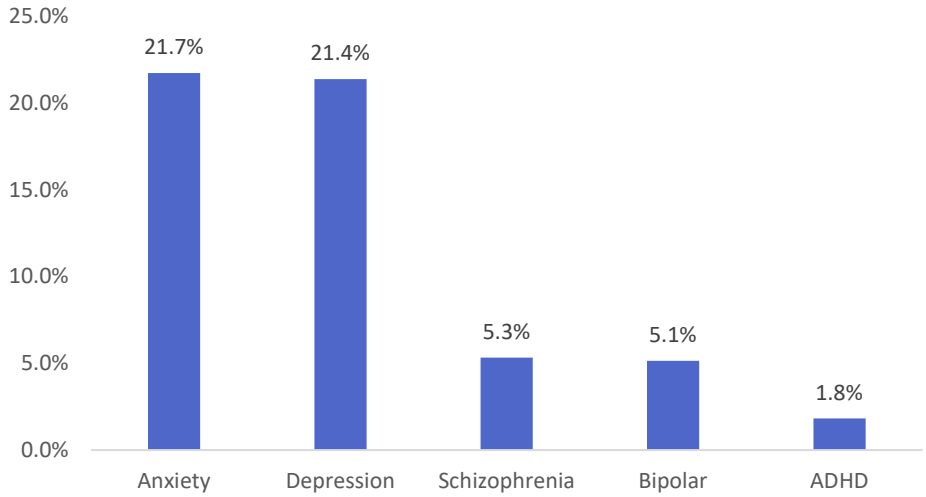

Figure 18: Percentage of Visits for Mental Health Conditions in Active HHC Patients

3.3 Morbidity Burden of HHC Patients

3.3.1 *Prevalence of Multiple Morbidities*

Among people who are homeless, multiple complex morbidities are the norm. As articulated in a recent paper in The Lancet,[52] a vertical or silo-based approach to health can overlook multi-morbidities and the underlying social issues contributing to poor health, leading to missed opportunities for prevention, early diagnosis, disease management, and mitigation of social risk factors. Most of the patients seen by HHC have a multitude of complex health conditions and unstable social circumstances, with high levels of physical, psychiatric and substance-related morbidity. Box 10 highlights the complexity of patients seen by HHC.

Photo 5: Street Health Nurse Checks Patients Blood Pressure

Box 10: Case Study Multiple Morbidities

Background

Leighton has a history of long-term homelessness. Now 40, Leighton has been a drug user since his early twenties, mostly consisting of codeine and morphine. Prior to his residency in transitional accommodation, he had been living in another crisis accommodation for 3–6 months before being asked to leave due to an overdose on medication. This event led him to attempt to take his own life through an overdose of prescription medication.

> *I got kicked out [the crisis service] for abusing my medication so then I thought alright I'm going to OD on all my pills. I took three and a half weeks' worth of meds all at once and I woke up to paramedics slapping my face…I went into hospital after OD'ing on my meds and they kicked me out onto the streets. So after hospital, I was out on the streets because it was a personality disorder that they assessed me as, not a mental disorder.*

Role of HHC

Leighton first saw HHC at the mobile clinic run through the transitional accommodation service. He has since seen HHC on at least 34 occasions. Reflective of his complex situation, his list of health concerns addressed includes chronic depression and anxiety, schizophrenia, back and knee pain, skin infections, tendonitis, opiate and benzodiazepine dependence, respiratory infections and issues with smoking cessation. Much of HHC's input has been around addressing his medication needs and ensuring he has a cost-effective and manageable course of pharmaceuticals. HHC has also helped organise his mental healthcare plan, including a psychological referral. In January 2018, Leighton moved into long-term community housing while he waits for access to public housing.

Data pulled from the PEN CAT Software System generates aggregate figures for the National Health Priority Areas[53] of diabetes, respiratory conditions, cardiovascular disease, musculoskeletal conditions, kidney disease and mental health conditions. Of active HHC patients, 71% had at least one of these conditions. Of the 1,391 people with these conditions, 34% had two or more (see Figure 19).

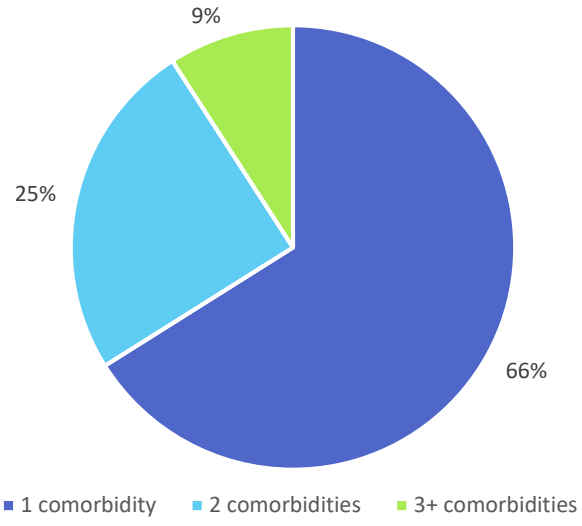

Figure 19: Comorbidities among Active HHC Patients

Reflecting their complex health profiles, the majority of HHC patients are taking medication to manage their health conditions (Figure 20). Managing and storing medications while experiencing homelessness presents significant challenges as it is common for patients to report that their medications have been stolen. In addition, the lack of accommodation with adequate facilities such as refrigeration makes appropriate

medication storage difficult. These challenges are particularly significant for HHC patients, with 27% of active patients taking five or more medications.

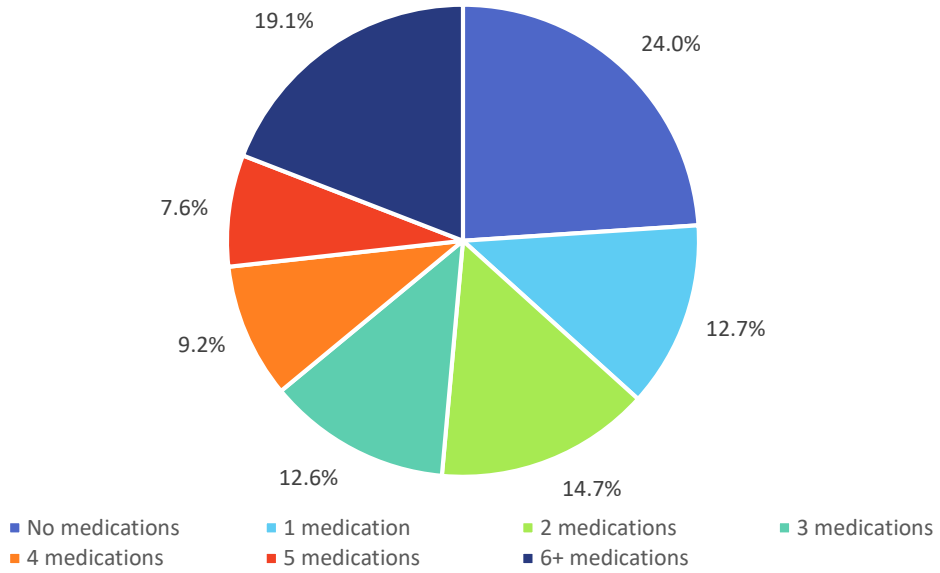

Figure 20: Number of Medications in Active HHC Patients

3.4 Patient Use of HHC Services

The complex, high health needs and the transient, mobile life of people experiencing homelessness mean that many patients are seen by HHC at multiple service locations. As shown in Figure 21, 2,895 unique patients attended at least one of 11 locations: AHSS, RPH, Transitions, St Bart's, The Beacon, Shopfront, Tranby, Ruah (drop-in), Harry Hunter's, Harmony, and Street Health. Of these, 830 (29%) attended two or more locations.

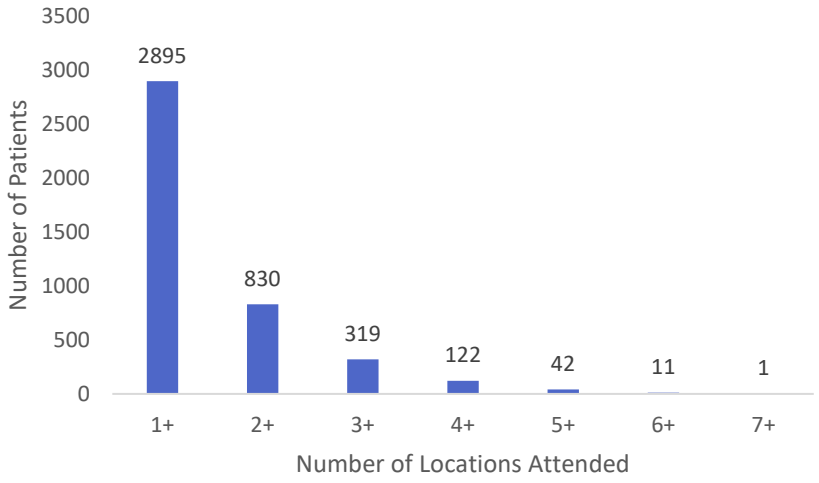

Figure 21: Number of Service Locations Attended by HHC Patients

The RPH Homeless Team saw the highest number of patients at 804 (28% of the total number of unique patients), as indicated in Figure 22. An evaluation of the Homeless Team's first 18 months conducted earlier this year showed 53% of patients seen had no previous contact with HHC.[14] This shows the necessity of hospital in-reach to identify and engage homeless patients and link them to HHC GP for follow-up. RPH Homeless Team was followed by Ruah Drop-in Centre with 670 patients (23%) and Street Health with 539

(19%), showing the benefits of offering services across a variety of locations. Street Health is particularly vital for engaging rough sleepers, and even though it saw nearly a fifth of total patients, it relies solely on philanthropic funding.

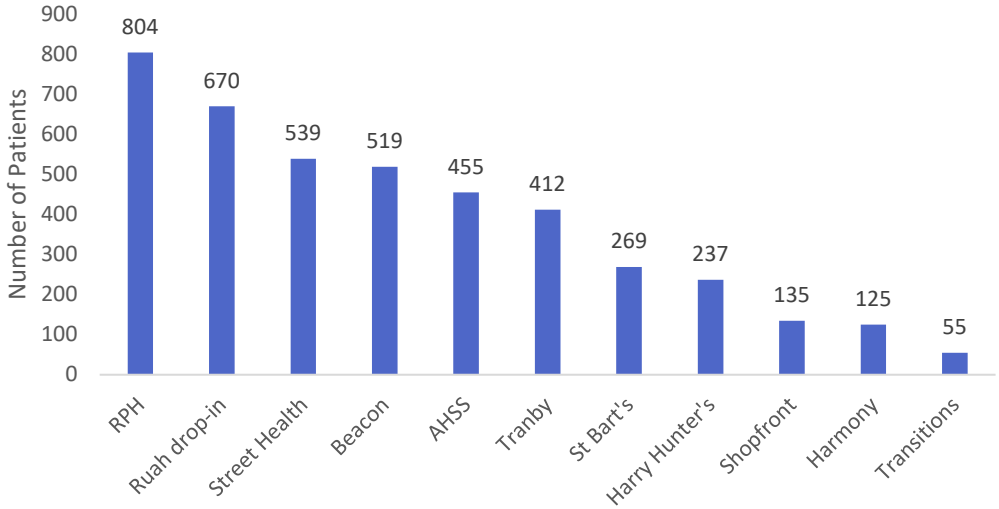

Figure 22: Number of Patients Attending Each Service Location

Figure 23 is a graphical illustration showing the number of unique patients who attended each two-way combination of locations. Patients who only attended one location are illustrated by the chords that return to itself. It is important to note this diagram only shows two-way combinations, so patients may have attended more than two locations, which are not demonstrated in this diagram. As shown in Table 9, Appendix 1, the highest two-way combination attendance was RPH and AHSS, with 191 unique patients attending both locations, followed by RPH and Ruah drop-in centre (156 patients).

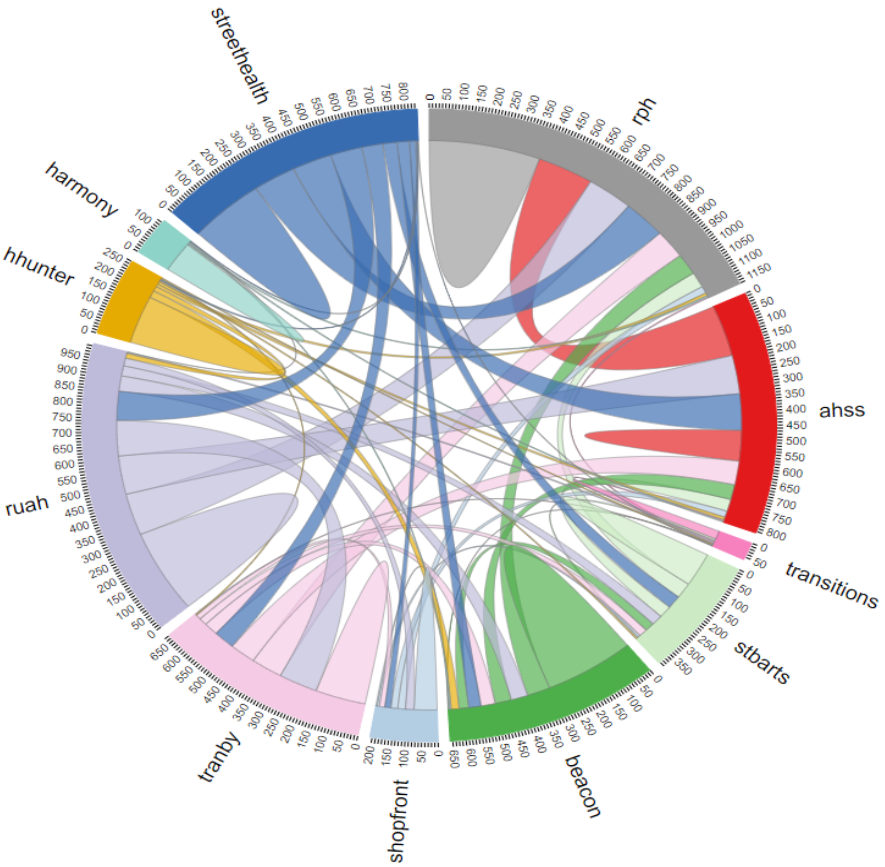

Figure 23: Chord Illustration of Common Two-way Combinations of Location Attendance

4 HEALTH SERVICE UTILISATION

...they trust us because we've been there for them in the drop-in centres when they've been really crook or they've been withdrawing... we've seen how these people will just sit on serious illness because they don't want to go to hospital... – HHC Nurse

This chapter uses administrative hospital data from four hospitals in the EMHS catchment area (RPH, Bentley, Kalamunda and Armadale) to explore the cumulative burden for HHC patients over a four-year period (2014–2017) and to investigate changes before and after housing (for those housed through 50 Lives).

4.1 Active HHC Patients Health Service Usage

Homeless Healthcare patients, due to their complex health profiles, multi-morbidities and experiences of homelessness, are among the most frequent presenters to EDs and often have lengthy inpatient admissions. This high level of acute health service utilisation imposes a substantial burden on the health system and is particularly significant when a number of these presentations and admissions relate to the deterioration of health conditions that would have been better and more appropriately managed in a primary care setting at an earlier stage.

The research team had access to linked administrative data for 933 of the 1,962 active HHC patients for the period 1 January 2013 to 30 April 2018. Administrative health data were provided by the WA Health Business Intelligence Unit.

"Emergency Department attendances continue to grow at an unsustainable rate. Between 2005 and 2015 ED attendances have increased by 49% and hospital admissions by 39%. This can lead to overcrowding in our EDs and hospitals which may ultimately lower the standard of care for patients requiring urgent or acute care."[10(p29)]

4.1.1 *ED Presentations*

Over a four-year period from 2014 to 2017, 81% of active HHC patients presented to an ED, with a total of 8,442 presentations (See Table 2). This equates to an average of nine ED presentations per person in the four-year period or more than two ED presentations per person per year. There were 57 HHC patients that presented to the ED on more than 20 occasions in a one-year period, 13 of which presented to ED more than 30 times in one year, and four presented to ED more than 40 times in one year.

Table 2: ED Presentations for Active HHC Patients from 2014 to 2017

n=933	2014	2015	2016	2017	Total
Total people (%)^	333 (36)	418 (45)	522 (56)	539 (58)	755 (81)
Total presentations	1,351	1,794	2,500	2,797	8,442
Mean (SD)^	1.4 (3.7)	1.9 (4.0)	2.7 (5.1)	3.0 (5.3)	9.0 (14.1)
Range	0–38	0–33	0–55	0–54	0–54

^Percent and mean of the total group (n=933), including individuals who did not present to the ED in the period specified.

The highest utilisation of the ED was observed in 2017, where 58% of active HHC patients presented to an ED nearly 2,800 times, for an average of 3.0 presentations per person (See Table 2). The most common primary diagnoses for active HHC patients presenting to an ED were injury/poisoning (18%), AOD use disorders (16%), specific procedures/care (10%) and mental health conditions (9%) (See Figure 24).

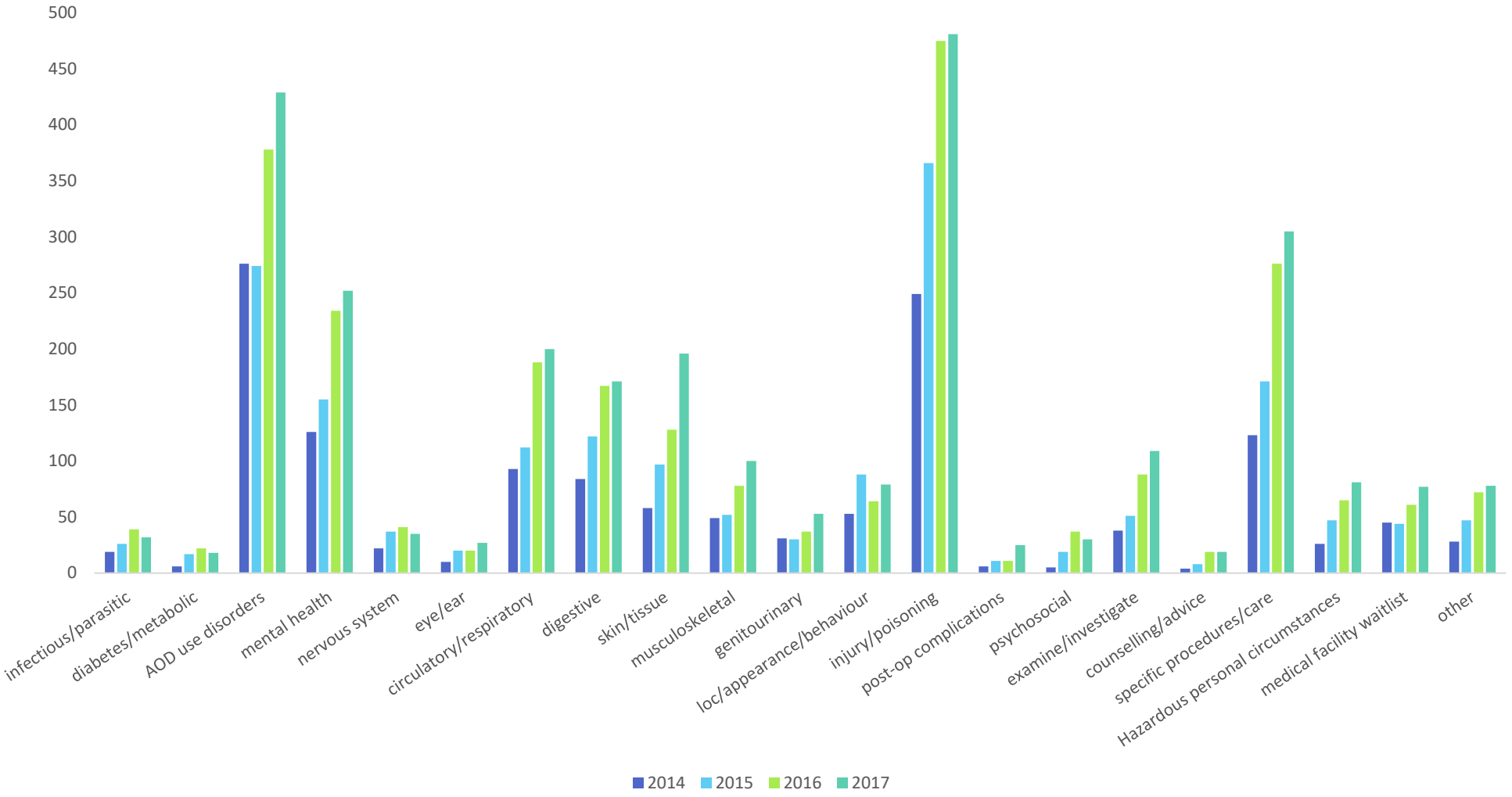

Figure 24: Primary ED Diagnoses for Active HHC Patients from 2014 to 2017

4.1.1.1 *ED Presentations Avoided Through HHC Clinics*

For each mobile GP clinic that is run, practitioners record if they believe the appointment has avoided the patient presenting to ED. Between 2015 and 2017, HHC provided nearly 9,000 appointments in drop-in centres and transitional accommodation facilities; of these, it was reported that 42% of appointments had indeed avoided an ED presentation. For the 3,660 appointments recorded as an ED substitution and based on IHPA costs of $765 per ED presentation, this poses a potential avoidance of $2.8 million in ED presentations and associated costs. While these figures are rough, they do provide indicative data of the valuable role HHC plays in redirecting healthcare back to a primary care setting and away from the ED. Future reports will investigate the rates of ED substitution by analysing HHC appointment and administrative ED data to determine how many appointments were closely followed by an ED presentation.

4.1.2 *Inpatient Admissions*

Nearly two-thirds (65%) of active HHC patients had an inpatient admission in the four-year period from 2014 to 2017, totalling more than 3,000 separate admissions (See Table 3). The combined length of stay for active HHC patients across this period was 11,484 days. The conditions associated with the most days in hospital were mental health (36% of days), AOD use disorder (15%), injury/poisoning (13%), circulatory/respiratory (7%) and digestive (6%). People who are homeless are on average admitted 30% longer for mental health treatment than the general public.[54]

The largest number of inpatient admissions were observed in 2017, where 40% of active HHC patients had at least one admission, with an average stay of 4.2 days.

Table 3: Inpatient Admissions for Active HHC Patients from 2014 to 2017

N=933	2014	2015	2016	2017	Total
Inpatient Admissions					
Total people (%)^	214 (23)	260 (28)	359 (38)	376 (40)	604 (65)
Total admissions	449	598	940	1,048	3,035
Mean (SD)^	0.5 (1.3)	0.6 (1.4)	1.0 (2.0)	1.1 (2.2)	3.3 (5.2)
Range (per person)	0–15	0–12	0–16	0–29	0–46
Days Admitted					
Total days	2,104	1,947	3,524	3,909	11,484
Mean (SD)^^	2.3 (8.4)	2.1 (7.3)	3.8 (10.8)	4.2 (11.8)	12.3 (25.2)
Range	0–80	0–122	0–117	0–140	0–243

^Percent and mean of total group (n=933), including those who did not have an inpatient admission during the period specified
^^Mean days calculated per person, not per admission

Most of the HHC patients who were admitted as an inpatient in the four-year period had total inpatient days of between one and seven days (67%), with 11% admitted for more than 22 days, and 7% for more than 28 days (See Figure 25).

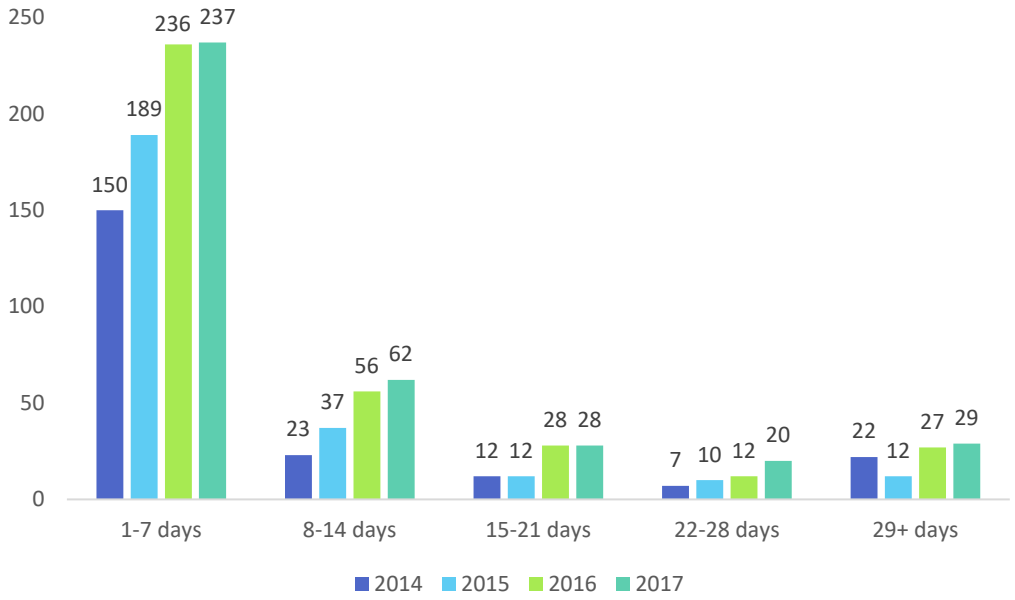

Figure 25: Days Admitted for Active HHC Patients from 2014 to 2017

4.1.3 *Associated Economic Cost*

Crude costings based on the aggregate ED and inpatient data for the 933 active HHC patients with hospital data equates to more than $37 million over four years alone, or approximately $10,000 per person per year (Table 4). It should be noted, however, that these cost estimates are conservative as data for hospitals outside of the EMHS catchment were not included, nor data for Midland hospital. The cost estimate also does not incorporate the different costs for psychiatric stays or other more costly admissions such as ICU. Despite the conservative nature of this cost estimate, it demonstrates the significant cost burden associated with hospital service use by patients experiencing homelessness.

Table 4: Aggregate Health Service Usage for Active HHC Patients from 2014 to 2017

	Presentations / Days^	Unit Price*	Aggregate Cost	Cost Per Person (n=933)	Per Person Per Year
Aggregate ED Presentations	8,442	$765 per presentation	$6,458,130	$6,921	$1,730
Aggregate Inpatient Days	11,484	$2,718 per day admitted	$31,216,230	$33,458	$8,364
TOTAL			$37,674,360	$40,379	$10,095

^Hospital data from East Metropolitan Catchment area (RPH, Bentley, Armadale, Kalamunda) only
*Costs based on the latest Independent Hospital Pricing Authority (Round 20) figures for the 2015–16 financial year for WA[8]

It should be noted, however, that there is huge variability among patients in regard to health service utilisation during this period. At the extreme end is one patient who presented to EDs 69 times and accumulated a total of 216 inpatient days. Within the EMHS catchment, the health service utilisation for this patient alone, equated to more than $1.1 million over four years.

4.2 Working with Frequent ED Presenters

For homeless people, the emergency department (ED) may be the only place they can obtain treatment for their health problems, and many homeless people are frequent ED attenders. In Australia, being homeless is known to be a strong sociodemographic predictor for ED re-presentation.[48(p422)]

4.2.1 *Relationship Between Homelessness and Frequent ED Presenting*

The over-representation of people experiencing homelessness among frequent presenters to ED is well documented in Australia[48,55] and internationally.[56-58] As noted in one Australian study by Moore et al.,[48,55] accurately identifying the risk factors for ED re-presentation and patterns of ED use among people who are homeless is important, as this can "*inform the development of interventions that take into account the role of community and hospital resources in providing healthcare delivery to this vulnerable group of ED service users*".[48(p422)]

> Emergency Department attendances are expensive to provide and should be prioritised for urgent needs. Health services for people experiencing or at risk of homelessness can be provided more effectively through other models of care. The aim of a community-based primary health service is to reduce public hospital Emergency Department attendances and provide ongoing care and support.
>
> *Homeless Healthcare (2014) Preferred Service Provider, Request for Primary Health Services for People Experiencing Homelessness*

Published studies in Australia[48,59,60] and internationally[57] have looked at factors associated with more frequent ED presentations among people experiencing homelessness, as depicted in Figure 26.

Factors associated with frequent ED presentations among homeless people
Complex health needs[48,57]
Higher prevalence of severe and persistent mental health issues[60]
Delayed help seeking[59]
Lack of access to primary care[48]
Intoxication or injury associated with AOD use[60]
No suitable location to recover from hospitalisations results in re-presentations[57]
Difficulty of managing chronic conditions living on the street[57]
Higher likelihood of crime victimisation[57]

Figure 26: Factors Associated with Frequent ED Representations Among People Who Are Homeless

4.2.2 *Prevalence of People who are Homeless Among Frequent ED Presenters RPH*

In 2017, there were 1,308 NFA patients seen at RPH ED, accounting for 3.9% of all ED presentations. From 2016, the RPH Homeless Team has been tracking the prevalence of people experiencing homelessness among frequent presenters to the RPH ED (See Figure 27).

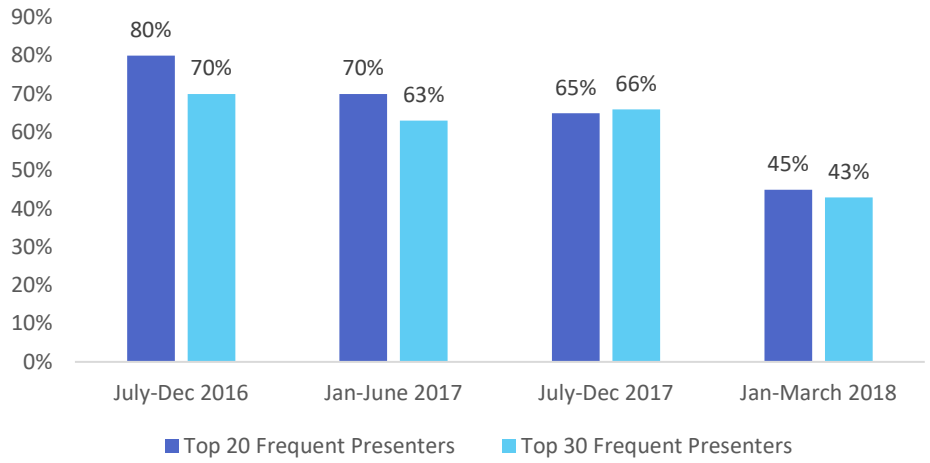

Figure 27: Proportion of People who are Homeless in the Top 20 and Top 30 Most Frequent Presenters to RPH ED

4.2.3 *Prevalence of HHC Patients Among Frequent ED Presenters RPH*

Data were obtained from RPH for the 50 homeless patients who presented most frequently to RPH ED in 2016 and 2017, which were then matched to the list of active HHC patients. The proportion of active HHC patients among the top 50 homeless ED presenters to RPH was then computed. As shown in Figure 28, 20 (44%) of the most frequent homeless presenters to ED in 2016 are active HHC patients, while of those in 2017, 28 (60%) are active HHC patients.

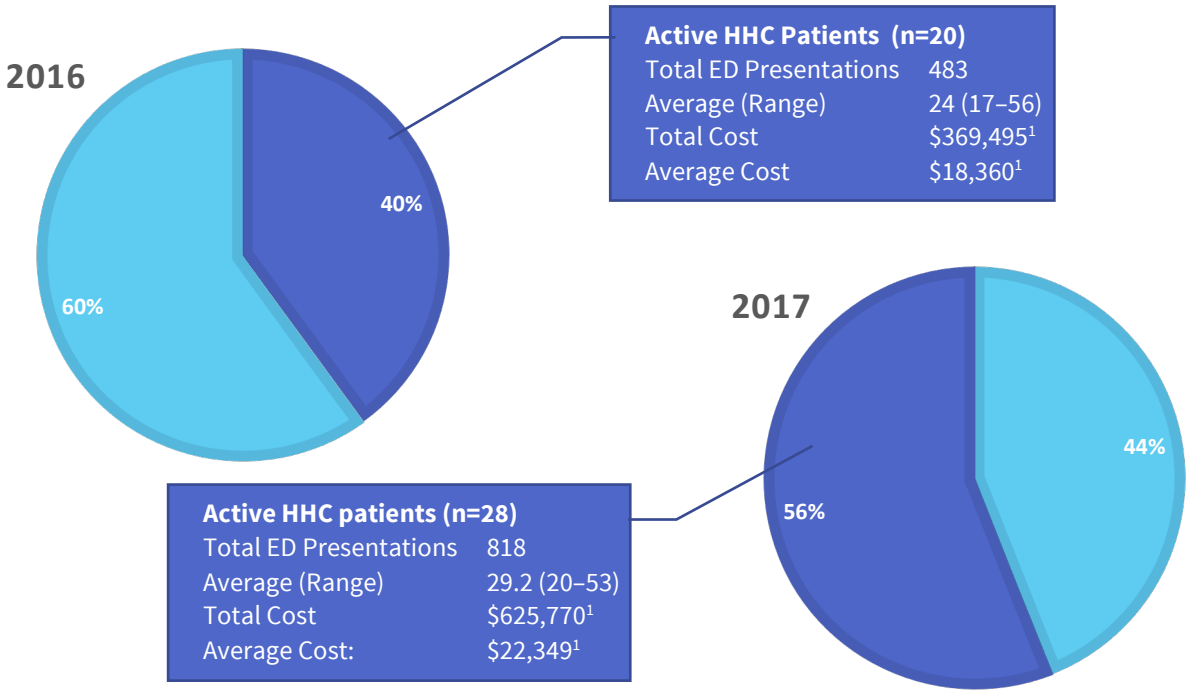

Figure 28: Proportion of HHC Patients in Top 50 Homeless Frequent Presenters at RPH ED

[1]Based on round 20 IHPA figures of $765 per ED presentation in WA[8]

As shown in Figure 28, the number of ED presentations cumulated across these patients is substantial. The cost to the health system associated with these ED presentations is also substantial, at a total cost of $995,265[8] to the health system for these 48 patients over 2016 and 2017.

4.2.4 *HHC Work with Frequent ED Presenters*

The recent Sustainable Health Review drew attention to the increase in ED attendances in WA over the last decade, and the unsustainability of this upward trend in acute care.[10] In WA and across Australia, there is increased awareness that focused intervention on frequent ED presenters to address their unmet needs contributes to a reduction in ED presentations and savings in hospital healthcare dollars. One of the Directions put forward by the Sustainable Health Review pertains to "*Better use of resources with more care in the community.*"[10(p29)]

Homeless Healthcare is helping to achieve this through the provision of primary health services embedded within a social determinants model of care to address the needs of the nearly 50% of people experiencing homelessness among the top 50 ED presenters in 2016 and 2017.

Importantly, a number of these patients were frequently presenting to ED prior to becoming HHC patients. The in-reach work of HHC via the RPH Homeless Team has enabled many of these highly vulnerable people to be identified and connected to HHC, and also to housing and other community supports. For example, for many homeless frequent ED presenters in 2016 and 2017, HHC was instrumental in referring the patient to 50 Lives and working to address the health and psychosocial issues that were contributing to frequent ED presentation.

4.2.4.1 *Changes in Patterns of ED Frequency Among HHC Patients*

Of the 28 HHC patients who were among the top 50 homeless presenters to the RPH ED in 2016, 11 no longer featured in the top 50 ED presenters to RPH ED in 2017. Of the nine patients who were on both the 2016 and 2017 list, three patients had fewer ED presentations in 2017, with a 54% decrease in ED presentations by one of these HHC patients in 2017.

The Case Study in Box 11 refers to one of the top 20 RPH ED attendees who was homeless in 2016.

Box 11: Case Study HHC Support Stabilises Mental Health

Background

Wayne has a complex history including mental health, AOD use and poor physical health. He came into contact with RPH in late 2015, frequently presenting at ED and was often admitted. His deteriorating mental health culminated in several suicide attempts and psychiatric admissions in 2016. During 2016, Wayne had 23 ED presentations, six psych admissions (total 56 days LOS) and four other unplanned admissions (11 days LOS). This equated to an estimated cost of health service use of $126,509 in 2016.

Role of HHC

Wayne was initially reluctant to engage with support services, but through the efforts of the HHC Street Health nurses, he became more receptive to engaging with HHC GPs while in RPH ED. In early October 2016, he was offered a Housing Authority unit as part of the 50 Lives project and has continued to receive HHC medical care, along with support from a case worker and the AHSS.

Current Health and Housing Situation

Wayne had no hospital presentations in the first half of 2017 and only a handful later in 2017. Although he struggled to maintain his tenancy and became homeless again in early 2018, he continued to engage with HHC through Street Health and received support to manage his psychosis, and there have been no hospital attendances in 2018. As of October 2018, he has had 32 contacts with HHC. This ongoing support has led to considerable improvements in his mental health, and he has recently been re-housed.

Note: Hospital costs based on the latest IHPA Round 20 figures for the 2015–16 financial year for WA.[8]

The Case Study in Box 12 refers to the second highest RPH ED presenter who was homeless in 2017.

Box 12: Case Study HHC Support Facilitates Housing and Reduced Service Use

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. 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

HHC via 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 support him 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 May 2018, Hamish has had no inpatient admissions and has only presented to ED once, instead attending a handful of non-acute outpatient clinics.

Note: Hospital costs based on the latest IHPA Round 20 figures for the 2015–16 financial year for WA.[8]

Of the HHC patients who were frequent ED presenters in either 2016 or 2017, some have been housed by 50 Lives and others have obtained transitional accommodation. However, a number of these patients continue to cycle between temporary accommodation, couch surfing with friends/family and rough sleeping. HHC remains an important point of stability for these patients, with the flexibility of HHC service locations enabling them to receive support despite changes in their circumstances. For those in transitional accommodation, HHC can provide more continuity of care via the GP clinics delivered each week at these facilities. This enables the long-term management and treatment of conditions that have contributed in the past to frequent ED presentations.

Photo 4: RPH Homeless Team in Action

Box 13: Case Study Frequent Support from HHC

Background

William is a 44-year-old man who has a history of unstable housing and complicated health issues. When he was sleeping rough in 2016, he completed the Homelessness Registry Week VI-SPDAT survey. William had been in foster care as a child, spent time in prison, has an acquired brain injury, and has previously self-harmed. Other reported health issues include epilepsy, drug and alcohol problems, asthma, heat exhaustion and dental problems. When asked what he would need to be safe and well, he replied: "*stable accommodation*".

Presentations to RPH and WA Hospitals

During 2016 and 2017, William presented to the ED eight times, with five inpatient admissions (58 inpatient days). He required two prolonged admissions for complex wound care in 2017. Being a rough sleeper, he was required to stay in hospital for the totality of the wound healing process, which included vacuum dressings and skin grafts. Other diagnoses in his hospital data highlight a complex medical profile, presenting for sepsis, drug and alcohol intoxication, polypharmacy overdose, a subdural rectal pressure ulcer, aspiration pneumonia, cellulitis of the lower leg, suicide attempt, arm abscess, hypothermia and injury sustained from assault. The cost associated with his ED presentations and inpatient admissions was $176,166.

Homeless Healthcare

William first presented to HHC with opiate dependence in mid-2016 but didn't regularly seek or accept healthcare until early January 2017. Since then he has interacted 76 times with HHC staff in the clinic, at hospital, at home, in a hostel or over the phone. Issues dealt with include opiate dependence, back pain, major depression, abscesses, skin ulcers, wounds, dressing changes, drug overdoses, incontinence, constipation, benzodiazepine dependence, neuropathic pain and exacerbation of COPD.

Note: Hospital costs based on the latest IHPA Round 20 figures for the 2015–16 financial year for WA.[8]

For those housed permanently (e.g. through 50 Lives), HHC provides ongoing care in the community via two avenues:

- GP clinics which are often provided in multiple settings, with some 50 Lives clients attending the Transitions Clinic, some seeing an HHC GP at drop-in clinics, and some at a mix of clinic locations.
- AHSS which visits housed 50 Lives clients in their homes on evenings and weekends and involves HHC nurses.

Photo 6: Homeless Healthcare Consultation with Patient

The Case Study in Box 14 refers to a long-term HHC patient who was among the top 50 most frequent homeless ED attendees in 2016 before she was housed.

Box 14: Case Study Working to Reduce ED Presentations

Background

Daniela is a woman in her mid-forties who cycled in and out of homelessness for at least three years and was living on the streets when she completed the VI-SPDAT in late 2016, scoring 15, indicating high vulnerability. Daniela has had a troubled life since childhood, including a history of foster care, not completing high school and spending time in youth detention. Daniela has also spent time in prison as an adult and has reported experiencing legal issues. She suffers from complex multi-morbidities, including kidney disease, hepatitis C, alcoholism, injected drug use and has an acquired brain injury. Life on the streets has compounded her health issues with reports of loss of prescription medications, dehydration, heat exhaustion, dental issues and being a victim of assault.

Role of HHC

She became involved with 50 Lives in October 2016 but had been on the Housing Authority priority list since August 2014. She was housed by the Housing Authority in May 2017 and remains housed. Through 50 Lives, she has had support from her case worker across a range of areas, including relationships, money management, emotional and physical health, AOD use and reducing her risk of offending. She has been visited regularly (over 40 times) by the AHSS team since being housed and receives support for health issues through the HHC nurses and GPs.

Current Health and Housing Situation

Since being housed, there has been a notable decrease in Daniela's hospital presentations. In the 12 months prior to housing, Daniela had 18 ED presentations, six general inpatient admissions (totalling seven days), and two psychiatric admissions (totalling 27 days). HHC has worked with Daniela to reduce her drug use and stabilise her mental health and having secure housing has enabled her to do this. In the year following housing, Daniela has presented to the ED just seven times, had only one overnight general inpatient admission and three psychiatric admissions (totalling 22 days). Notably, she has not presented to hospital at all in the first nine months of 2018. These figures represent a $19,378 reduction in hospital costs annually throughout the two-year period.

As noted by Homeless Healthcare

> *for someone like Daniela who has complex health needs it is important that she has ongoing support to ensure that she remains stable and maintains her housing.*

Note: Hospital costs based on the latest IHPA Round 20 figures for the 2015–16 financial year for WA.[8]

4.3 Changes in Health Service Use Once Housed

Safe and stable housing is an essential component of attaining and maintaining good health. The findings presented in this section of the report relate to a sub-group of HHC patients who have been housed through the 50 Lives project, and who continue to receive support from HHC through the AHSS. We have looked at changes in hospital use for two subsets of the HHC patients—those that have been housed for six months or more as at 30 April 2018 (n=63), and those housed for 12 months or more (n=43).

4.3.1 *Changes in ED Presentations Once Housed*

The proportion of patients presenting to ED reduced in both the six- and 12-months after housing groups as did the total number of presentations.

For active HHC patients who had been **housed at least six months** (n=63), there was a 22% reduction in the number of patients who presented to ED from the six months before to the six months after housing (Table

5). The total number of ED presentations for the patient group housed for six months reduced significantly by 39% in the six months after housing, compared to the six months prior. The average number of ED presentations per patient also decreased from 2.0 in the six months prior to housing to 1.2 in the six months after housing.

For active HHC patients who had been **housed at least 12-months** (n=43), there was a 26% reduction in the number of patients presenting to ED when comparing 12 months before to 12 months after housing. The average number of ED presentations per person in the year after housing also decreased, from 4.7 in the year prior to 2.0 in the year after housing (Table 5). There was a substantial reduction in the total number of ED presentations, which more than halved in the year after housing, compared to the 12-months prior (57% reduction).

Table 5: ED Presentations in the 6- and 12-Months Pre- and Post-Housing

	6 Months (n=63)			12 Months (n=43)		
	Pre	Post	% Change	Pre	Post	% Change
Total people (%)^	36 (57)	28 (44)	−22%	31 (72)	23 (53)	−26%
Total presentations	126	77	−39%**	204	88	−57%**
Mean (SD)	2.0 (3.2)	1.2 (2.5)		4.7 (6.8)	2.0 (4.4)	
Range	0–16	0–14		0–26	0–25	

*p<0.05, **p<0.01

^For six months pre/post n=63. For 12 months pre/post n=43

4.3.2 *Most Common ED Diagnoses*

The most common ED diagnoses in the six and 12-months prior to patients obtaining housing were related to injury/poisoning, AOD use disorders, digestive issues, mental health concerns and genitourinary problems (See Table 6). With the exception of mental health diagnoses for patients **housed at least six months**, the frequency of ED presentations with the other four diagnoses all decreased after housing. The largest reductions six and 12-months post-housing were observed for diagnoses of genitourinary conditions, with an 89% reduction in ED presentations for this primary diagnosis.

For patients who were **housed for at least 12-months,** the largest reduction in primary ED diagnoses was also observed for genitourinary conditions (reduction of 79%). Presentations relating to injury/poisoning and digestive problems also decreased substantially, with reductions of 70% and 57%, respectively. Other changes in ED diagnoses for patients who had been housed for at least 12-months are shown in Figure 29.

Table 6: Top Five ED Diagnoses in the 6- and 12-Months Pre- and Post-Housing

Diagnosis	6 Months			12 Months		
	Pre	Post	Change	Pre	Post	Change
Injury/poisoning	27	13	−52%	53	16	−70%
AOD use disorders	13	10	−23%	21	12	−43%
Digestive	12	10	−17%	21	9	−57%
Mental health	12	12	0%	17	9	−47%
Genitourinary	9	1	−89%	14	3	−79%

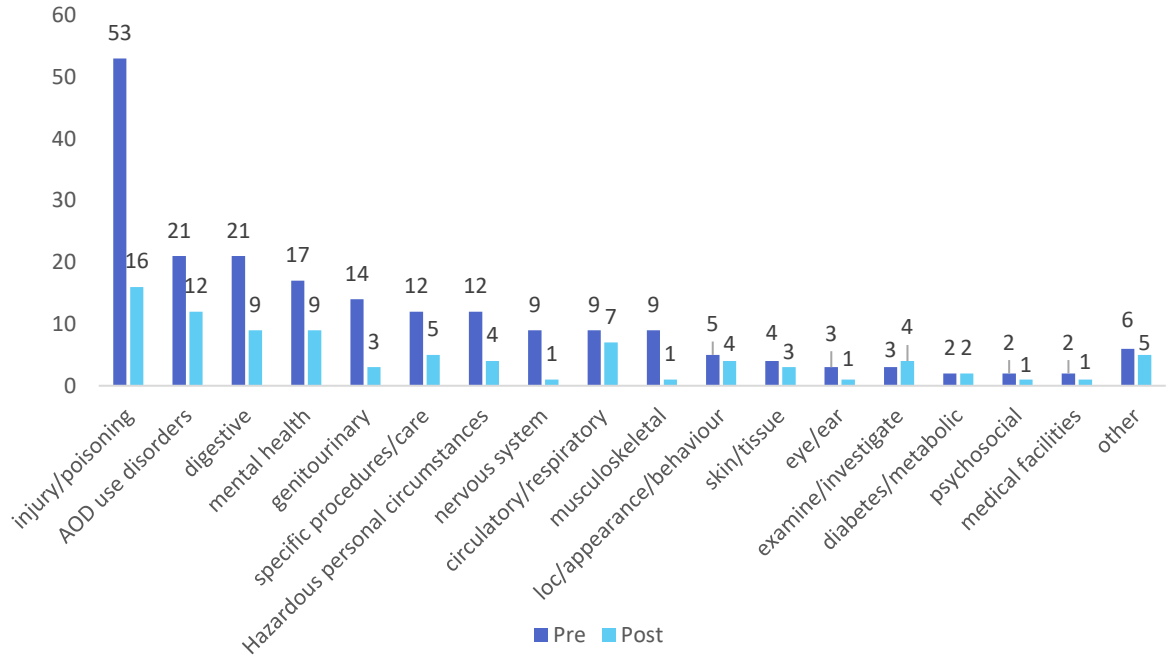

Figure 29: Number of Primary Diagnoses for Presentations 12-Months Pre- and Post-Housing

4.3.3 *Change in Inpatient Admissions and Days*

Findings from international studies suggest that it can take people who have previously been homeless time to adjust to being housed and that during this adjustment period health service utilisation may temporarily increase.[29,61,62] The greatest reductions in health service utilisation in these studies have been observed after people have been stably housed for two years.[28,63] At the time of the report, we do not have data available for two years post-housing. Therefore, changes in inpatient admissions and length of stay were assessed for those who had been housed for at least six months and 12-months or more.

For active HHC patients who had been **housed for at least six months** (n=63), there was a reduction in the proportion of patients who were admitted to hospital and the total number of admissions (Table 7). The number of admissions for this group after being housed for six months, compared to the six months prior to housing, decreased by 25% (from 96 to 72 admissions). There was also a substantial reduction of 48% in the number of days spent admitted in the six months after housing (from 243 to 126 days), and the average number of admissions per patient almost halved compared to the six months prior to housing (from 3.9 to 2.0).

For active HHC patients who had been **housed for at least 12-months** (n=43), the number of people admitted as inpatients in the year after housing reduced by more than one-third (36%), and the total number of admissions reduced significantly by 29% (from 161 before housing to 115 in the year afterwards) (See Table 7). The total number of days admitted to hospital also reduced once patients had been housed, decreasing from 302 days in the year prior to 179 in the 12-months after being housed. The average number of days admitted to hospital per person reduced from 7.0 to 4.2 in the year after housing.

Table 7: Hospital Inpatient Admissions Pre- and Post-Housing

	6-months (n=63)			12-months (n=43)		
	Pre	Post	% Change	Pre	Post	% Change
Inpatient Admissions						
Total people (%)	24 (38)	18 (29)	−25%	22 (51)	14 (33)	−36%
Total admissions	96	72	−25%*	161	115	−29%**
Mean (SD)^	1.5 (6.5)	1.1(6.2)		3.7 (14.9)	2.7 (14.1)	
Range	0–51	0–49		0–98	0–93	
Days Admitted						
Total days	243	126	−48%	302	179	−41%
Mean (SD)^	3.9 (11.7)	2.0 (6.9)		7.0 (19.1)	4.2 (15.5)	
Range	0–61	0–50		0–108	0–100	

*p<0.05, **p<0.01

^For six months pre/post n=63. For 12-months pre/post n=43

4.3.4 *Changes in Diagnoses for Inpatient Admissions Once Housed*

The most common diagnosis for inpatient admissions prior to housing was specific procedures/care, and this remained the most common after housing for both the patient group housed for six months and those housed for 12-months. Injury/poisoning was the second most common diagnosis pre-housing and remained so in the period after housing for both groups. The frequency of this diagnosis declined in the six months (50%) and 12-months (65%) post-housing compared to the respective pre-housing periods. Other changes in inpatient diagnosis after housing are shown in Figure 30.

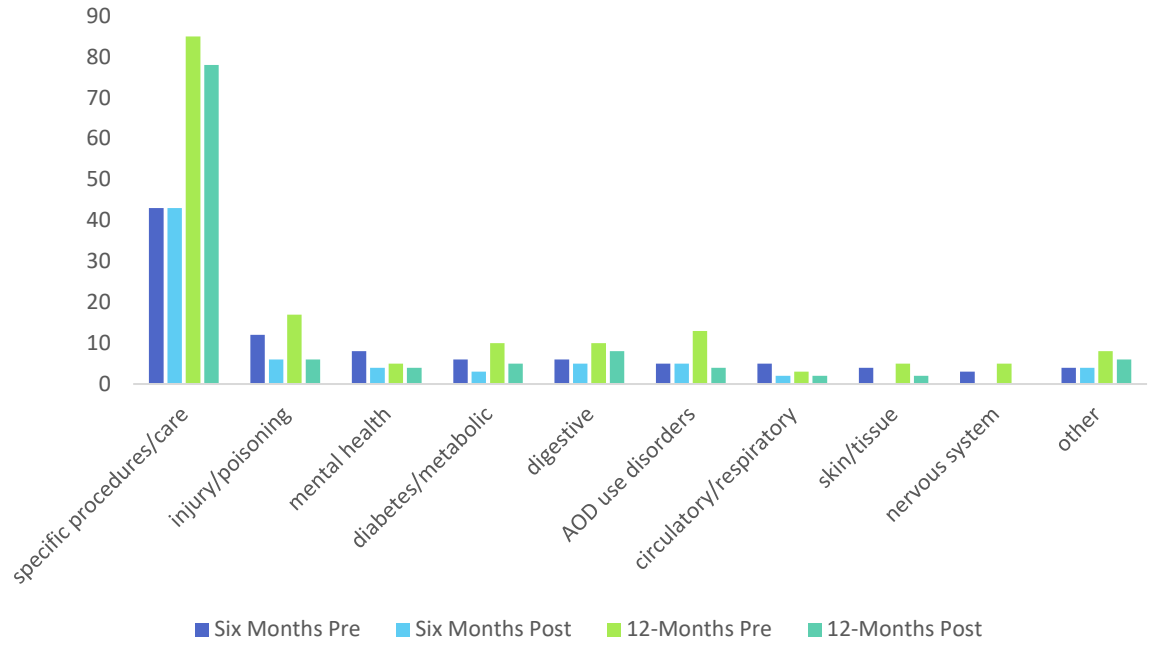

Figure 30: Changes in Inpatient Diagnoses 6- and 12-Months Pre- and Post-Housing

Housing has a substantial positive impact on health service utilisation by people who have experienced homelessness. However, ongoing support after housing is also critical for managing their complex ongoing multi-morbidities. Homeless Healthcare has an important role in assisting people to stabilise their health once they have been housed and this, in turn, reduces health service utilisation.

4.3.5 *Associated Economic Cost*

Crude costs associated with the observed changes in ED presentations and inpatients admissions have been calculated for active HHC patients housed for both at least six months and 12-months or more. The most recent costs provided by the IHPA indicated that an average ED presentation in a WA hospital cost the health system $765, while the average inpatient cost in a WA public hospital was $2,718 per day.[8] As shown in Table 8, the combined reduction in health service utilisation for HHC patients housed for at least six months was associated with a reduction of $5,643 per person in costs to the health system. The greatest reductions in health service utilisation and the associated reduction in costs were observed for those housed for at least 12-months, with an estimated cost saving per person of $9,838 in the year after housing. The total estimated cost saving associated with reductions in ED presentations and inpatient admissions for the 43 HHC patients housed for at least 12-months was $423,054.

Table 8: Change in Cost Associated with Changes in Health Service Usage for those Housed for 6 and 12 Months

	Change in Presentations / Days^	Unit Price*	Change in Aggregate Cost	Change in Cost Per Person
Six Months pre/post (n=63)				
Change in ED Presentations	–49 Presentations	$765 per presentation	–$37,485	–$595
Change in Inpatient Days	–117 Days	$2,718 per day admitted	–$318,006	–$5,048
TOTAL			–$355,491	–$5,643 per person^
Twelve Months pre/post (n=43)				
Change in ED Presentations	–116 Presentations	$765 per presentation	–$88,740	–$2,064
Change in Inpatient Days	–123 Days	$2,718 per day admitted	–$334,314	–$7,775
TOTAL			–$423,054	–$9,838 per person^^

^Cost per person change for the 63 people who had been housed for six months or more
^^Cost per person change for the 43 people who had been housed for 12 months or more
*Costs based on the latest Independent Hospital Pricing Authority (Round 20) figures for the 2015–16 financial year for WA[8]

Photo 7: HHC Patient at a Clinic

5 CONTRIBUTION OF HHC TO BUILDING CAPACITY IN THE HEALTH WORKFORCE IN WA

The right to a home is not just a matter of social cohesion and justice. Providing stable housing is an important upstream intervention to reduce avoidable deaths and improve health and wellbeing[38(p179)]

Homeless Healthcare is active in providing medical student and GP registrar placements, enabling the ethos and practice of the service to be experienced by the future members of the WA medical workforce. With the Sustainable Health Review[10] highlighting the need to improve the health of vulnerable population groups, student and registrar exposure to the work of HHC provides a valuable contribution to the WA health sector. This is reflected in the quote from the UWA GP term coordinator:

> *Homeless Healthcare seems a very valuable and rather unique placement for our students. It exposes students to aspects of healthcare that they would not see so much in a "mainstream" general practice. I understand there is a strong emphasis on mental health and substance issues in the work of the Homeless Healthcare team, plus sometimes acute medical issues presenting later than usual. There's also opportunities for students to see vividly the effects of adverse social determinants of health. Students can otherwise be rather isolated from these. Our students praise the variety inherent in Homeless Healthcare's work, the way the team members are so keen to teach, and the excellent role-modelling of patient-centred care that they see.* ***– Dr Brett Montgomery, General Practice term coordinator, UWA***

Over the last seven years, HHC has provided placements to 66 medical students and four registrars (See Figure 31).

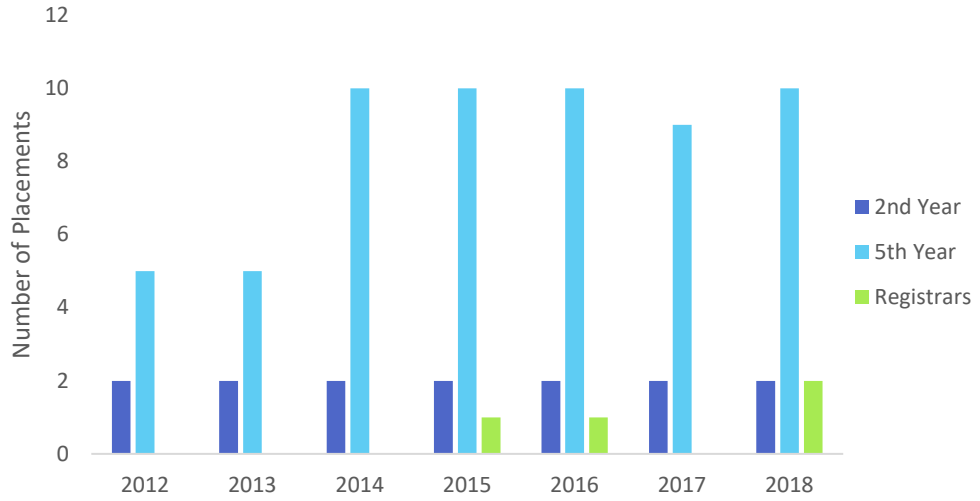

Figure 31: Homeless Healthcare Medical Student and Registrar Placements

In the UK, homelessness medicine is increasingly being recognised as a sub-specialty of general practice, and there is a growing recognition of the need for this in Australia also.[7] HHC is in an excellent position to improve the standard of care delivered to its vulnerable clientele through ongoing research and evaluation and by training the future medical workforce. By exposing students to the HHC model and facilitating sub-specialty training of GP registrars, the service is leading the way in the development of the upcoming workforce in homelessness medicine. Previous medical students provided some feedback regarding their placements at HHC, some of which are included below. The benefits they reported, such as increased understanding of issues affecting people experiencing homelessness, are consistent with the experience of GP registrars taking part in a similar service in Ireland.[64]

Very interesting placement – allowed me experience in an area and population group I otherwise wouldn't have a lot of experience in. – ***Previous HHC Medical Student***

Dr Andrew fantastic at motivational interviewing – it was great to observe and learn. ***– Previous HHC Medical Student***

Variety of clinics and therefore presentations. ***– Previous HHC Medical Student***

The doctors are so keen to teach, they also are great doctors with excellent interpersonal skills and empathy to patients. – ***Previous HHC Medical Student***

Many opportunities to practice GP in other settings. ***– Previous HHC Medical Student***

Really broadened my perspective on homelessness and their common conditions. ***– Previous HHC Medical Student***

Photo 8: UWA Medical Student at Street Health

The role of HHC in building workforce capacity is congruent with several recommendations of the WA Sustainable Health Review, including:

Direction 10 of the Sustainable Health Review[10] (*Develop a supported and flexible workforce*) emphasises the need to "*look for opportunities for more efficient service delivery and to fully utilise the scope of practice for all health professionals*" through "*exploration of…multidisciplinary models that make better use of the skills and experience of the professions employed within the health system*". Students and registrars placed with HHC gain experience in multidisciplinary collaboration and working with vulnerable population groups who have complex multi-morbidities.

The proposed service also addresses Direction 9 of the Sustainable Health Review (*Harness and support medical research, collaboration and innovation*). Partnerships between the HHC service, Universities and The Royal Australian College of General Practitioners have laid the foundations for future research, training and service-delivery collaborations with a view to expand the evidence base in homelessness medicine. This will lead to innovative solutions to the problems of homelessness and associated social and medical issues as well as optimisation of existing, established approaches. Collaboration with educational institutions facilitates the early exposure of trainees to the rigours and rewards of homelessness medicine, potentially instilling the desire to develop a career in the sector.

6 THE NEED TO DO MORE – ADDRESSING GAPS IN HEALTHCARE FOR PEOPLE WHO ARE HOMELESS IN WA

Because of the high prevalence of serious health conditions in this marginalised population, effective action is urgently needed to address both ill health in people who are homeless and the underlying issue of homelessness itself[65(p1541)]

Homeless Healthcare is an innovative example of a service that seeks to meet the primary healthcare needs of people experiencing homelessness in community settings, while also assisting patients to access housing and other support. Although the physical delivery of healthcare is the entry point, the service recognises that the causes of both homelessness and associated poor health are multifactorial and that more tailored and multi-pronged solutions are necessary. This first HHC report provides an overview of the model of care and scope of service delivery provided by HHC. The demographic profile and profound health needs of HHC patients are described, and the significant implications for the health system through the frequent use of health services are discussed. This section of the report identifies gaps in the current provision of healthcare for people who are experiencing homelessness and provides potential solutions to improve health and wellbeing among this vulnerable group.

The 2018 Sustainable Health Review's interim report[10] highlights the compelling need to tackle the significant and persistent inequities in health outcomes experienced by some populations within the WA community. As this report has shown, the magnitude of health disparities among people who are homeless is sobering. Other themes in the Sustainable Health Review report also resonate closely with the work and ethos of HHC and its commitment to reducing the enormous health disparities experienced by people who are homeless. These include improving integrated continuity of care, the need for more consumer-focused models of care, the urgent need for mental health system reform, and calls to reduce pressure on ED through more community-based care. The Review also stresses the undeniable need for more effective and efficient use of public funding if the WA health system is to be sustainable. Additionally, a key theme articulated in the Sustainable Health Review is the importance of improved coordination of care for patients transitioning between hospitals and community-based primary care.[10] This is a core area of focus for HHC, reflected through their in-reach work through the RPH Homeless Team.

As shown in Chapter 2, the HHC Model of Care places the wellbeing of patients at the centre of their service and works beyond primary care to address the broader social determinants of health in partnership with other services and sectors. As noted by a recent article in The Lancet, this unique approach is essential for improving outcomes for patients who are homeless.[26] The model of care that HHC provides and their strong collaborative links to the health and homelessness sectors allow for a more cohesive and comprehensive service to be delivered. The opportunity to improve patient health is enhanced by meeting 'non-health' needs such as housing, welfare and legal support.

> *"Multicomponent interventions with coordinated care are most effective and should include both health and non-health services. Partnership working and service design around the whole person is necessary to achieve the best results."* [26(p274)]

6.1 Challenges and Gaps

While HHC has made massive strides towards supporting and providing healthcare to individuals experiencing homelessness, some challenges have been identified that need to be addressed to accelerate the reduction of health inequities experienced by people who are homeless.

6.1.1 *Continuity and Expansion of Funding*

Homeless Healthcare is partially funded by WA Health, but an increasing proportion of their services rely on philanthropic funding or are currently operating without funding (See Figure 32). Many of the essential services HHC currently provides to deliver healthcare to their extremely vulnerable patients do not have ongoing funding. Street Health ran out of funding in mid-2017 and would have been discontinued if it was not for a generous $100,000 philanthropic donation. The recently announced Fremantle clinic, the soon to commence youth clinic and the expansion of Street Health to Fremantle have precarious funding and rely on philanthropy. The central Transitions Clinic is also currently without ongoing funding. Due to the lack of secure, ongoing funding for HHC's existing services, the scope to expand and deliver new services has been limited. However, significant areas of unmet need and service gaps have been identified and HHC has responded to these despite funding limitations.

As shown earlier in this report, homelessness is present across the Perth metropolitan region (and wider WA), and HHC is currently supporting patients across all three WA metropolitan health services (east, south and north) (See Figure 7). This broad geographic spread of homelessness highlights the need for a whole of WA health approach to the provision of general practice healthcare for people experiencing homelessness. Homelessness defies suburbs and health service boundaries and HHC has built, over the past decade, positive relationship with approximately 4,200 clients and close collaborations and partnerships with homelessness services and housing providers across the greater Perth area.

> *It's a human right that we have people delivering service to our most vulnerable in the community. I don't know of any other service that can do that, probably on the shoestring budget that Homeless Healthcare does it. We don't see government delivering it on the streets and from a - if I can just correlate to policing, the biggest issue is street level service provision. That's what we need. More street level service providers. So, services that Andrew provides and others like it are invaluable and we couldn't do without it.* **– Detective Superintendent Kim Massam, WA Police**

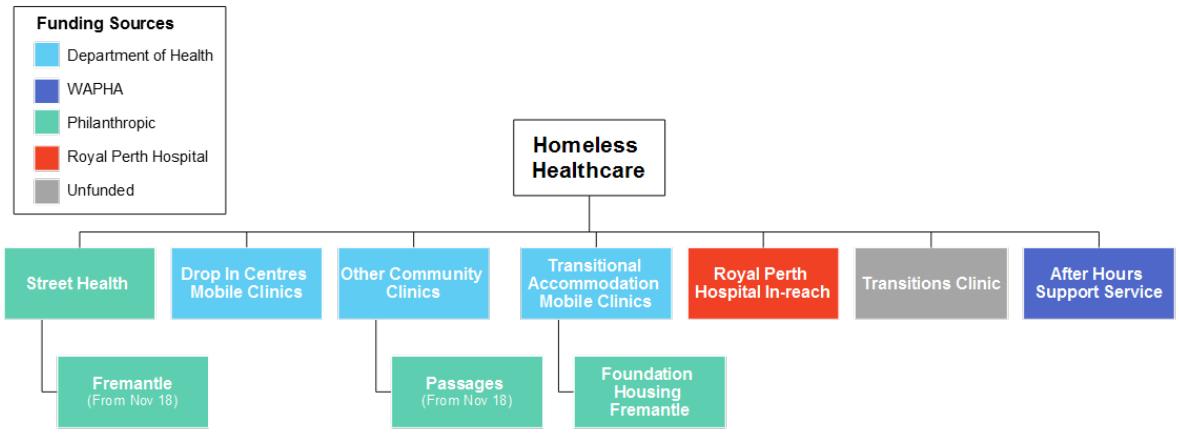

Figure 32: Homeless Healthcare Services by Funding Sources

6.1.2 *Expansion of Funding for Existing Clinics*

There is a need for expanded funding for existing HHC clinics to meet the increasing levels of demand among the patient group. Demand for a GP at several of the HHC mobile clinics located at drop-in centres and transitional accommodation providers is currently unable to be met due to a lack of funding to expand clinic hours. A recent survey of drop-in centres and transitional accommodation providers that host HHC clinics estimated that, on average, between 10 and 70 new clients a month had not received support from a GP.

> *Availability of appointments can be problematic at high-demand times such as when we have a full programme of 40 residents and we can only fit 20 into allotted times.* **– Transitional Accommodation Provider**

> *Demands greater than service availability.* **– Temporary Accommodation Provider**

There are also increasing numbers of people engaging with drop-in centres and transitional accommodation who have not previously been linked with a GP. HHC is working to meet this increasing need, taking on 1,736 new patients in the last two years. However, the need for ongoing long-term support among existing patients makes this challenging without increased funding, as shown in the data and case studies presented in this report.

In addition to expanding clinic hours, increased funding for existing clinics could be used to employ a health outreach worker. This is a model that has been used internationally to build positive relationships and link people who are homeless with primary care services.[66] In drop-in centres, the health outreach worker would work across drop-in centres and transitional accommodation providers to engage with patients, build trust, link them with HHC and provide education to improve health literacy.

6.1.2.1 *Funding for Transitions Clinic*

Homeless Healthcare's Transitions Clinic runs daily and provides a vital service for their patients. However, it is currently unfunded. The Transitions Clinic is primarily for patients who have been housed and provides continuity of support as they adjust to housing with the goal of eventually transitioning to mainstream primary care services. The more structured nature of the Transitions Clinic is also important for HHC patients experiencing homelessness who do not engage with drop-in centres, often because they find the environment confronting. Funding for the Transitions Clinic will allow HHC to maintain and expand this essential service. It is pertinent to note that while this clinic is unfunded, the HHC contract with WA Health identifies people who have previously experienced homelessness as a priority target group.

6.1.2.2 *Expansion of Funding for Other Geographical Areas*

Homeless Healthcare has identified a substantial unmet need in geographical areas beyond their core service areas that require increased funding to expand services. Fremantle has a substantial population of people experiencing or at risk of homelessness. Recent census data[2] indicates that 385 people identified as homeless in Fremantle, the highest number in the South West Metropolitan Area of Perth, and one of the highest in the metropolitan area outside of the Perth CBD. However, the recent closure of Fremantle Hospital ED has contributed to a significant increase in demand for specialist homeless GP services in the Fremantle area. The Fiona Stanley Hospital ED is difficult to reach via public transport, meaning that people who are homeless have avoided seeking help and then presented in crisis at a later stage. To address this urgent gap in service delivery, HHC opened a mobile clinic at a transitional accommodation provider in Fremantle, supported by a philanthropic donation. However, the funding is insufficient to meet current demand for GP services. A key component of the HHC Model of Care is the trust they build with patients and their commitment to ongoing support. However, the uncertainty of philanthropic donations can undermine these principles and future service delivery.

6.1.2.3 *Expansion of Funding for Youth Clinic*

Youth homelessness is a growing issue in Australia, with 25% of people experiencing homelessness in WA aged under 25 in 2016.[2] Currently, 8% of HHC patients are aged under 25, and there is a need to expand funding to operate more youth-specific clinics. The Passages clinic has engaged a substantial proportion of young people who were not previously receiving HHC support, indicating the need for additional youth-specific

clinics. These could be mobile outreach clinics based at transitional accommodation providers for young people experiencing homelessness, or based at the central Transitions Clinics and supported by an outreach worker[66] to transport patients to and from the clinic and their transitional accommodation.

6.1.2.4 *Expansion of Funding for Street Health*

Homeless Healthcare's Street Health Service is currently funded by a philanthropic donation. However, this funding is only secured until mid-2019. As shown in this report, Street Health is often the only point of contact for rough sleepers seeking healthcare, other than ED. Street Health provides essential outreach services to HHC patients who are rough sleeping, is central to early detection of health conditions and prevention of deterioration, and ensures patients do not 'fall through the gaps'.

6.1.3 *Mental Health and AOD Dual Diagnosis*

People experiencing homelessness who have a dual diagnosis of a mental health condition and AOD issue have multiple complexities[5,47,61], and there is currently a gap in delivering a cohesive and holistic service that addresses both mental health and AOD comorbidities. The RPH Homeless Team's experience with the current specialist AOD and mental health services in WA is that most homeless patients bounce endlessly between the two services without improvement in their conditions, remain homeless, and repeatedly present to hospitals in crisis.[14] The interaction of homelessness, mental health conditions and AOD issues is increasingly discussed within the homelessness sector, as observed by the Chief Executive Officer of St Bartholomew's House:

> *The homelessness sector in Perth has noted over the last 12 months an increase in the number of clients experiencing comorbidity of drugs, alcohol and mental health issues. In the first 6 months of 2018, 9–10% of our clients have been assessed as high suicide risk, and about two-thirds have a mental health diagnosis. Access to a specialist psych support team that could visit on-site would assist with recovery, prevent escalation of risk, and reduce use of Emergency Departments.* **– Chief Executive Officer, St Bartholomew's House**

However, interventions that simultaneously address mental health and AOD issues have the potential to yield substantial cost and health benefits.[34] Some of the strongest evidence around reducing hospital demand has emerged for interventions specifically targeting those who are homeless and in need of psychiatric care. A recent study linking WA hospital and housing data for a cohort of formerly homeless people found that the most dramatic reduction in healthcare use was in individuals with serious and persistent mental illness.[34] The net cost saving was $84,135 per person per year.

Homeless Healthcare has been active in advocating for a specialist service to address this enormous gap in existing services for people who are homeless and have a dual diagnosis, and was recently successful in securing a Research Translation Projects Grant from the Department of Health. The new Homeless Dual Diagnosis Service will support and provide care for homeless people experiencing both mental health and AOD issues. This service will comprise an Addiction Psychiatrist and a Senior Mental Health AOD Case Worker who will work within the existing HHC clinics. This grant, however, only provides funding until 2019 and there is a clear need for longer-term support for this patient group.

6.1.4 *Chronic Disease Primary and Secondary Prevention*

> *"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."*[10(p23)]

Reducing health inequalities and attaining health equity in society requires a more concerted effort to achieve more rapid improvements in health for those whose health is worse off.[67]

As shown in this report, preventable chronic disease and risk factors for chronic disease are far higher among this population group and account for a substantial number of avoidable ED presentations and inpatient admissions. The myriad of social determinants at play in these patients' lives is one of the impediments to chronic disease primary and secondary prevention, but there are also structural and system-level barriers that result in people who are homeless not being able to access the type or duration of intervention they need. In this report, we highlight two areas where the 'standard' Medicare rebateable care available to GP patients in the mainstream population is inadequate to meet the needs of this low income, high-risk cohort. In both of the examples below, while some of the constraints require wider reforms (such as TGA and PBS), there are examples from other states and territories where innovative responses are being implemented that enhance preventative efforts and prevent hospital admissions.

6.1.4.1 *Tobacco Cessation Support*

Alfred Health in Melbourne has conducted a scoping report, evaluating the provision of NRT.[68] Emerging evidence suggests that individually targeted NRT, often through a combination of different delivery systems, has led to greater success in smoking cessation, particularly in vulnerable populations with high smoking rates, and has had follow-on benefits for other health conditions, particularly for patients with mental health issues requiring antipsychotic medication.[68] HHC also faces system-level barriers to providing their patients with appropriate healthcare and support. Despite the high prevalence of smoking among HHC patients and high levels of willingness to attempt cessation, restrictions on prescribing NRTs mean that HHC is unable to provide best-practice support to their patients attempting cessation. Available literature suggests that cessation attempts supported by combinations of NRT, for example, nicotine patches and intermittent forms such as gum or mouth spray, are more likely to be effective than attempts where only patches are used.[68] However, combination NRT is not able to be prescribed through the PBS and over-the-counter purchases are unaffordable for people experiencing homelessness.[68] There is also some evidence that the dose of NRTs prescribed through the PBS are insufficient to reduce cravings among people highly dependent of nicotine.[68] Additionally, there are restrictions on the duration for which NRTs can be prescribed through the PBS, and these may be insufficient to support cessation in people experiencing homelessness who often have circumstances that complication cessation.[68]

6.1.4.2 *Inadequate Access to Allied Health and Other Care*

There is a high need for allied health services, particularly physiotherapy and podiatry, among people experiencing homelessness.[47] Osteoarthritis is one of the five most common physical health conditions seen by HHC and physiotherapy is often part of the management of this condition. However, the limited number of appointments available through Medicare are insufficient to meet the complex needs of patients; the majority of HHC patients exceed the five appointments covered by Medicare rebates, and additional appointments are currently covered by the physiotherapist on a voluntary basis.

6.1.5 *Homeless Women's Health Service*

As shown in this report, less than 10% of HHC patients are receiving adequate screening for breast, colorectal or cervical cancer. Only 7% of eligible HHC patients had received adequate cervical screening. There is a clear gap in specific outreach services to women who are homeless who require specialist gynaecological services in WA. As men are more likely to be rough sleepers, which is the most visible type of homelessness, it is often falsely viewed as a 'male' problem. The number of females accessing specialised homelessness services overtook males in 2016–17, with family and domestic violence the main contributing factor.[69] Women also require access to specific health services, such as preventative cervical and breast cancer screening, antenatal care and family planning/contraception. This is particularly important for homeless women, as they are at a higher risk for sexually transmitted diseases[47] and cancers,[70] have higher pregnancy rates,[71] and experience a higher number of adverse birth outcomes.[72] There is a clear need for a trauma-informed specialised women service to address this enormous unmet need.

> *Our experience is that for the many women we work with in our Safe as Houses program their health issues take a back stage to the emotional, social and legal issues associated with their experience of family and domestic violence and their risk of homelessness. This group of women would profoundly benefit from a trauma informed clinic specialising in preventative health screening specifically designed for them.* **– Carmen Acosta, Safe as Houses**

> *… a women's only clinic for client's experiencing trauma would be of a significant benefit for women affected by family and domestic violence, as they are more likely to seek supports and medical checks from a specialist service.* **– Holly Wells, Family Services, Ruah**

It is essential to undertake efforts to provide adequate healthcare for this underserved population. An example of this type of service is cohealth[73], offering specialist health services in Melbourne's CBD, inner northern and western suburbs for people experiencing homelessness, with specific health services for women experiencing homelessness.

6.1.6 *Medical Recovery Centres: Places for Pre- and Post-Hospital Care*

People experiencing homelessness are often discharged from hospital when they no longer require a costly hospital bed but are too sick to survive on the streets, resulting in high rates of unplanned readmission.[74] Furthermore, preparation for many elective procedures and operations is increasingly being done in the home, resulting in many homeless people being unable to undergo these procedures. For example, bowel preparation required for colonoscopies (a common diagnostic procedure) is impossible when people have limited access to toilets.[7] Homeless Healthcare is advocating for a solution to these two problems—Medical Recovery Centres (MRCs). Based on the respite centre model in the United States, MRCs provide homeless people with a place to live and receive care when they are too sick for the streets, but not sick enough for a hospital bed.[75] As well as being cost saving, these centres can also help homeless patients access care in a trauma-informed environment.

> *We know that hospitals can be a terrifying, traumatic and overwhelming place for people who are homeless- hence the high discharge/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, South Eastern Sydney Local Health District**

A growing body of evidence is showing that MRCs can result in improved health and housing outcomes for homeless patients, with a number of US studies reporting substantial reductions in hospitalisations and hospital readmissions.[75] There are only a few examples of MRCs in Australia, including Sister Francesca Healy Cottage at St Vincent's Hospital Melbourne and Tierney House at St Vincent's Hospital Sydney.[76] However, this could soon be expanded:

> *NSW is looking at potentially replicating Tierney House (a 12 bed medical respite centre affiliated with St Vincent's Hospital Sydney) in other places – as well as a place to discharge people who are homeless to, it takes an entirely different approach to healthcare that is necessary for this group with complex needs, and the model of care is flexible, sustainable and cost-effective. Self-discharge is less likely because it is not an intimidating hospital environment, and while people are there, it enables us to undertake complex community assessments in a non-acute and highly supportive setting. The establishment of Tierney was probably the best homelessness health development in the inner city for years.* – **Stephanie Macfarlane, South Eastern Sydney Local Health District**

The case study in Box 15 gives an example of a patient who would have benefited from an MRC.

Box 15: Case Study Benefits of MRC

Background

Henry is a male in his mid-forties who has experienced homelessness for 20 years and has a multitude of serious chronic health conditions. He scored 11 on the VI-SPDAT indicating he is highly vulnerable. He was attacked while sleeping on the street, further compounding existing trauma. In one six-month period, he accessed crisis services 20 times. Henry's health issues include hepatitis C, heart problems and drug use issues. Added to this are a brain injury and learning difficulties.

Presentations to RPH and WA hospitals

Between 2015 and 2017, Henry presented to the ED 48 times and had 18 inpatient admissions (one psychiatric admission for one day, and 17 non-psychiatric admissions equating to 89 days in hospital). Recorded reasons for hospital admissions were diverse, including back pain, hallucinations, auditory issues, suicidal ideation, benzodiazepine overdose, gastrointestinal issues, drug and alcohol intoxication, pelvic fracture, chest pains, pneumonia, hip pain, cellulitis and a psychiatric review. The resultant cost associated with his ED presentations and inpatient admissions was $326,093.

Role of HHC

Since 2010, HHC has had 279 interactions with this patient. Many of his tri-morbidities are chronic and highly recurrent. He has suffered ongoing medical issues relating to schizophrenia and other mental illnesses such as anxiety and depression, benzodiazepine dependence, dental problems, back pain, drug dependence and prescription drug abuse. In addition to these recurring complications, he has experienced bronchitis, paranoia, febrile illness, cardiac abnormalities, iron deficiency anaemia, aspiration pneumonia, weight loss and lacerations suffered during a motor vehicle accident.

Why this patient would benefit from an MRC

Complex patients such as this are 'bouncing balls' in the hospital system with very short hospital stays which do not address the multitude of issues and result in further presentations. They also have catastrophic events, such as Henry's motor vehicle accident in 2017, which lead to very prolonged admissions, as demonstrated above. When major injuries or illnesses strike a person who is homeless, the admissions are generally long and difficult, and early discharge results in further complications and admissions. An MRC can markedly reduce the LOS of these catastrophic events, comparable to a housed person because they have a place of rest, supervision and access to home hospital services. The MRC will also use this time for stabilisation of mental health and AOD problems which cannot be done on the streets, and therefore smooth the path to long-term housing.

Note: Hospital costs based on the latest IHPA Round 20 figures for the 2015–16 financial year for WA.[8]

6.1.7 *Data Collection, Research and Evaluation*

Homeless Healthcare believes in providing evidence-based services and wants to continue its ongoing evaluation with UWA. However, homeless populations are notoriously difficult to study, with many people

having multiple pseudonyms and conflicting details. This has made linking hospital data difficult and time-consuming. Furthermore, the current patient management program used by HHC does not allow for easy data export. Additionally, HHC relies on funding from a variety of sources (See Figure 32), which often do not include an evaluation component.

While it may seem axiomatic that a research and evaluation report would make recommendations for further research, the need for more robust data and evaluation around homelessness and around homelessness and health has been echoed by many; a recent paper in The Lancet notes that:

> *The ability of health and social policy to address the needs of the most marginalised populations should be a key indicator of quality. Such initiatives need to be supported by information systems that can provide data for continuing advocacy, guide service development, and monitor the health of marginalised populations over time.*[52(p8)]

Closer to home, the recent report on homelessness in WA stated:

> *Research and evaluation is the fulcrum of progress towards addressing homelessness. Without robust, continuous evaluation of programs and policy, there is no way of knowing whether investment is being well directed or whether it should continue. Ongoing research can fill the gaps and limitations of current measures of homelessness and measure changes in the profile of homelessness, which will facilitate a deeper understanding of the nature of homelessness in WA upon which responsive policy can be developed. Further, central to effective research and evaluation is the articulation of the connection between resources, activities, and intended outcomes.*[12(pxvi)]

6.1.8 *Peer Navigators and Lived Experience Engagement in Homeless Healthcare*

There are growing calls for greater consumer involvement in all areas of health, and this is reiterated in the Sustainable Health Review.[10] Consumer involvement has become more normalised in mainstream WA mental healthcare, but this is yet to occur for the sub-group of mental health patients experiencing homelessness. In the UK, Pathway has been at the forefront of involving people with lived experience in homeless health service delivery, planning and research.[21] Homeless Healthcare has been proactive in instigating the HHC Patient Advisory Committee in 2017, and the UWA research team is working to build traction for the engagement of people with lived experience in homeless health research and service input. Given the emphasis on consumer involvement and the imperative to better address health inequalities in vulnerable groups, there is a need in WA for government commitment and resourcing to support lived experience input and the role of peer navigators in homeless health services. An initial evaluation of the Choices program, a service run through Ruah Community Services and funded by WAPHA with a substantial number of participants experiencing homelessness, has shown the benefits of peer workers in supporting people to navigate the health system and engage with support services.[77]

6.1.9 *Need for a More Comprehensive Whole of Government Response to Providing Healthcare to People Experiencing Homelessness*

People experiencing homelessness place a substantial burden on both health system resources[31,36,78] and the broader homelessness sector through the intensity of support they require and complex underlying health needs.[31,79] There is a clear bi-directional relationship between homelessness and health[79], whereby mental

> *"There is also a significant opportunity for the health sector to partner with other providers, such as the human services sector, in relation to housing, education, vocational training and primary care to address some of the many issues faced by people with mental illness. Addressing the patient as a whole in relation to mental health is a key part of helping them stay well and managing their illness within the community."*[10(p35)]

illness and chronic diseases can precipitate homelessness, and unstable housing can result in a deterioration in mental health and exacerbation in health conditions.[79] Homeless Healthcare services have the potential to substantially reduce the burden of frequent service utilisation by people experiencing homelessness, both within and beyond the health sector. As demonstrated in the recent evaluation of 50 Lives, for example, the work of HHC has had a central role in supporting people to maintain their tenancies.[15]

In WA and around the world, an extraordinary amount of money is spent on hospital healthcare for people experiencing homelessness, and for many, it is a revolving door.[16] The traditional medical model does not improve overall health or reduce healthcare usage over time and, as shown in this report, the cumulative healthcare costs continue to accrue and often accelerate as health and social issues worsen. Without a commitment to ongoing funding and service expansion, this dire situation will continue to escalate.

Photo 9: HHC Patient Receiving Treatment in Mobile Clinic Rather than Hospital Presentation

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APPENDIX 1: SUPPLEMENTARY DATA TABLES

Table 9: Homeless Healthcare Clinic Attendance (Two-Way Combination)

	RPH	Beacon	AHSS	Transitions	St Bart's	Shopfront	Tranby	Ruah (drop-in)	Harry Hunter's	Harmony	Street Health
RPH	804										
Beacon	79	519									
AHSS	191	56	455								
Transitions	4	2	5	55							
St Bart's	58	33	45	6	269						
Shopfront	26	4	23	0	8	135					
Tranby	107	48	88	2	28	18	412				
Ruah (drop-in)	156	57	143	5	38	29	132	670			
Harry Hunter's	11	27	10	3	5	0	4	18	237		
Harmony	5	4	4	0	0	0	0	1	0	125	
Street Health	145	135	1	48	42	21	72	108	5	3	539

Note: This table is limited to two-way relationships only and does not depict those who attended three or more sites.

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