The Housing Prescription: A Case Study of Houston's Integrated Care for the Chronically Homeless Program

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Abstract

A growing body of research indicates that social determinants of health (including socioeconomic status, education, race, gender, etc.) have a profound impact on individual health outcomes. This begs the question of just how these determinants can be addressed through policy. I explore one social determinant: homelessness. In the United States, homeless populations experience worse health outcomes and live shorter lives than the general population.

I begin by exploring the health challenges and barriers to health care access faced by homeless individuals. I then transition to exploring how policy can better address the health needs of homeless individuals through a case study of the Integrated Care for the Chronically Homeless (ICCH) program in Houston, Texas. ICCH takes a cross-sector approach to the health issues of chronically homeless individuals, providing clients with housing and social support services in addition to traditional medical services.

My research consists of interviews with twenty-two individuals, including ICCH program staff, people working with homeless individuals in traditional hospital settings or homeless service agencies in Houston, and staff at similar programs in Los Angeles, California and Chicago, Illinois.

Ultimately, I find that homeless individuals face a variety of formal and informal barriers in accessing health care and maintaining their health more broadly. I find that ICCH's approach appears to be effective in addressing these barriers, improving program participants' health-related quality of life and reducing their utilization of emergency department services. I also find certain aspects of ICCH's structure, namely its provision of comprehensive, coordinated, and client-centered services, as being critical to these successes.

If policymakers want to effectively address the persistent health challenges faced by homeless populations, they need to broaden their focus beyond the individual to encompass how their social context impacts their health status. Houston's ICCH and similar programs provide a viable model to begin doing so. Future research should continue to monitor these programs to gain a deeper sense of long-term outcomes and program sustainability. Nevertheless, this case highlights the potential for great gains to be made, both at the individual and societal level, through a more socially conscious approach to health policy.

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List of Abbreviations

BHH……...Better Health Through Housing
CHW……..Community Health Worker
EHR……...Electronic Health Record
ED…….....Emergency Department
ER…….....Emergency Room
HF…….....Housing First
HFH……...Housing for Health
HHH……...Healthcare for the Homeless—Houston
HOT……...Homeless Outreach Team
HRQOL…….Health-Related Quality of Life
HUD……...U.S. Department of Housing and Urban Development
ICCH……..Integrated Care for the Chronically Homeless
LA…….....Los Angeles
LCSW…….Licensed Clinical Social Worker
MI…….....Motivational Interviewing
MPP……....Master of Public Policy
MSW……...Master of Social Work
NHH……...New Hope Housing
RN…….....Registered Nurse
PHQ-9……Patient Health Questionnaire-9
PSH……....Permanent Supportive Housing
SDH……...Social Determinants of Health
SF-36……..Short Form Health Survey-36
TTM……...Transtheoretical Model

Introduction

"The connection between the health and dwelling of the population is the most important one that exists." –Florence Nightingale

On any given night, it is estimated that over 500,000 individuals across America are experiencing homelessness. This totals to 2.3-2.5 million Americans each year (Baggett, 2019). These individuals are vulnerable from a variety of perspectives, not the least of which is health. When it comes to health issues, the situation of homeless individuals is characterized by a dual difficulty. First, homeless individuals utilize emergency health services at disproportionately high rates and, as a result, incur disproportionately high health care costs. Second, despite this high level of utilization, homeless individuals also suffer disproportionately poor health outcomes. They experience high rates of infectious disease (such as tuberculosis, hepatitis, and HIV/AIDS), diabetes, cardiometabolic disorders, respiratory illnesses, chronic pain conditions, substance abuse issues, and mental illness. In a nationwide survey, over 50% of individuals experiencing homelessness rated their health as fair or poor, compared to just 17% of the general population (Bagget, 2019). Unfortunately, this manifests in homeless individuals living 25 years less on average than their housed peers (O'Connell, 2005). Given these stakes, finding a solution to this dual difficulty of high acute care utilization and persistently poor health outcomes among homeless individuals is imperative.

Health issues have traditionally been approached through the biomedical paradigm, which stems back to the mid-nineteenth century with the work of Louis Pasteur and his germ theory of disease (Sadigh, 2013). According to this framework, disease and ill health are the result of discrete biological causes and have traceable etiologies. Health issues can be entirely explained and accounted for by malfunctions in an individual's biology. This strict biological understanding of health problems naturally gives rise to a strict biological understanding of health solutions. Effectively treating a health issue thus becomes a task of identifying a disease's biological cause and targeting it with treatment. This paradigm has created a cultural conception of health care that is overwhelmingly, and almost exclusively, associated with medicine and the medical professions—from hospitals and surgeries to primary care physicians and prescription medications.

However, this traditional conception of health has come under increasing scrutiny in recent decades, as scholarship has begun to suggest that biological mechanisms are not the sole contributors to illness. In 1995, Link and Phelan published their "Social Conditions as Fundamental Causes of Disease," codifying this alternative approach to understanding health and disease. They argue that biological mechanisms were not the primary contributors to disease, and specifically to health disparities. Instead, they argue that social factors (including race, education, socioeconomic status, gender, and, most importantly for this analysis, housing status) play a vital role in determining the resources that individuals can use to safeguard their health and address presenting health issues. This disparity in social and economic resources in turn makes some individuals more susceptible to poor health outcomes than others. Traditional biological causes are viewed as merely the "proximal causes" of illness." It is these "social determinants of health" that serve as the true "fundamental causes" of disease and disparity (Link & Phelan, 1995).

When the health issues of homeless individuals are viewed through a social determinants of health lens, it becomes clear that our current approach to health policy is insufficient. By only treating these individuals' presenting biological conditions without addressing the social factors underlying and exacerbating them, the traditional medical approach is unable to properly address

the health needs of these individuals. This perpetuates a "revolving door" cycle of individuals seeking emergency health services, being discharged onto the streets, and rapidly returning to the health care system. In light of this disconnect, a cross-sector approach that incorporates health policy with broader social policy may be more effective.

In an attempt to disrupt this "revolving door," one program, Integrated Care for the Chronically Homeless (ICCH), in Houston has taken just such an approach. The program aims to improve health outcomes and reduce health care costs among chronically homeless individuals by providing them with an unusual prescription: housing. In this model, eligible individuals are provided with a place to live and connected with a care team that provides intensive case management services as part of their medical care plan. Evidence is growing to support the social determinants of health (SDH) framework advanced by Link and Phelan, providing a theoretical framework for "housing as health care" programs like ICCH. However, far less is known about the best ways to use this theoretical knowledge to address health issues in practice. Through a case study of the ICCH program, this research project aims to contribute to the body of literature on the SDH and to help to fill the gap in how these determinants can be combatted through policy.

Effective policies cannot be crafted until the nature of and mechanisms behind these determinants are fully understood. Thus, I will begin by exploring the interactions between housing status and individual health in order to better understand this relationship and build a theoretical foundation upon which to base my analysis. Namely, what are the intersections between housing and health? What barriers do individuals experiencing homelessness face both in accessing health care services and in caring for their health more generally?

Once the contours of the relationship between housing and health are more clearly defined, I will then explore how this relationship can be addressed through policy. Specifically, I will examine the approach of one program: ICCH. How does ICCH address the intersections between housing and health and the barriers faced by individuals experiencing homelessness? Is their approach effective in improving individual outcomes (as measured through impact on health outcomes, emergency department utilization, housing stability, and perceptions of individual agency)? What challenges has the program faced, and what improvements can be made?

Finally, I will attempt to broaden my scope beyond Houston and examine the potential for ICCH to be replicated in other cities. To do so, I will attempt to identify the key components of ICCH that make the program successful as well as identify any unique features of Houston that may impede its implementation in other contexts. I will also present a brief survey of similar "housing as health care" initiatives throughout the United States, namely Los Angeles' Housing for Health and Chicago's Better Health Through Housing programs. From this analysis, I will present a list of policy proposals both for the improvement of the ICCH program specifically and for the potential development of similar programs in other areas. More broadly, my research seeks to contribute to a process of re-imagination in the realm of health care by stepping beyond the confines of the traditional biomedical approach and into a more a socially conscious notion of health policy.

Background

The City of Houston: History and Context

The current status of Integrated Care for the Chronically Homeless (ICCH) cannot be fully understood without considering its larger historical and policy context. At the start of the 2010s, Houston was at a crossroads regarding homelessness. In 2011, the Houston homeless population reached an all-time high, with the January Point-in-Time homeless count peaking at 8,471 individuals (Garnham, 2019). That same year, the US Department of Housing and Urban Development (HUD) identified Houston as one of its "priority communities." This designation was reserved for the ten communities in the United States that HUD felt were the most affected by homelessness, highlighting the extent of homelessness in Houston and the necessity of working toward innovative solutions (Nevius, 2015).

City government officials responded in kind. In 2012, Houston's then-mayor, Annise Parker, announced that "moving the needle" on homelessness was one of her top priorities, and she quickly began taking action to achieve this goal (Fraser & Morris, 2014). In 2012, Houston created The Way Home initiative, a citywide collaboration between homeless service agencies, non-profit organizations, and local and federal government agencies focused on ending homelessness in the city. These efforts have proven relatively successful. According to HUD, in 2015, Houston "effectively end[ed]" veteran homelessness, and, as of 2019, Houston has seen a 53% reduction in its homeless population since 2011 (*Houston Ends Veteran Homelessness*, n.d.; Garnham, 2019). Although Mayor Parker's tenure ended in 2016, Houston's current mayor, Sylvester Turner, has continued to make addressing homelessness a priority, with the City currently striving to end homelessness among families and youth by 2020 (Beretto, 2015).

ICCH: Inception and Program Structure

ICCH was started in 2015 as a part of this larger effort to combat homelessness in the city. ICCH is a partnership between three organizations serving the Houston homeless community: Healthcare for the Homeless—Houston (HHH), which provides clients with medical services; SEARCH Homeless Services, which provides clients with case management and social services; and New Hope Housing (NHH), which provides clients with housing at their properties throughout the city. In order to be eligible for ICCH, an individual must be chronically homeless (as defined by the US Department of Housing and Urban Development)[1], have a verified disability, and have at least 3 self-reported emergency room (ER) visits within the last 2 years. Eligible individuals are identified through Houston's Coordinated Access System[2], which screens all individuals seeking any homeless services in the city and matches them with programs for which they qualify. Individuals who meet the criteria for enrollment in ICCH are provided with a housing voucher by the Houston Housing Authority. After an individual has received this voucher, they are provided with a single room occupancy unit (SRO) at one of four NHH housing sites (K. Arscott, personal communication, January 3, 2020).

[1] The specifics of the HUD definition of "chronically homeless" will be discussed in more detail in the "Methodology" section.

[2] The Coordinated Access System is not a unique feature of Houston. Coordinated Access Systems are required by the US Department of Housing and Urban Development (HUD) for any regional or local body receiving HUD funding that coordinates housing services (K. Arscott, personal communication, January 17, 2020).

Once they are ready to move in, individuals are connected with a care team. The care team is present on-site 5 days per week, with office space in the NHH apartment complexes. There is one care team per housing site, and each care team serves approximately 30 clients. The care team consists of a community health worker (CHW), a clinical case manager, and a registered nurse (RN). Broadly speaking, the CHWs help clients navigate bureaucratic processes and coordinate their health care. They help clients schedule doctor's appointments, arrange transportation to and from clinics, and apply for government benefits (including Social Security Disability, SNAP, and Medicaid), among other things. The clinical case managers work with individuals to help them manage their social needs. They mediate between clients and housing providers, help individuals adjust to housing, and provide them with behavioral and therapeutic services. The RN provides basic medical services, monitors individuals' medical conditions, educates clients about their health conditions and medications, and serves as a primary point-of-contact for other team members with specific medical questions. In addition to this core group, an individual's care team is also extended to include any outside health care providers that they see (including primary care doctors, specialists, and outside therapists) (K. Arscott, personal communication, January 3, 2020). As of January 2020, there were 109 clients enrolled in ICCH. In total, ICCH has served 274 clients since it began operating in 2015 (J. Bacon, personal communication, January 22, 2020).

ICCH was made possible through funding from an 1115 Medicaid Waiver. Under the Social Security Act of 1935, federal Medicaid dollars cannot be used to pay for the intensive case management and care coordination services provided by ICCH. However, Section 1115 of the Social Security Act allows for the secretary of a state's Department of Health and Human Services to waive specific requirements for major health and welfare programs, like Medicaid, for "experimental" or "pilot" projects if they believe that these projects will help "assist in promoting the objective of the program." Thus, Section 1115 provides states with flexibility to use federal Medicaid dollars in ways that would otherwise be prohibited and to "institute reforms that go beyond just routine medical care" if they are able to prove that these reforms "drive better health outcomes and quality of life improvements" (Goodwin, 2017). In 2014, the City of Houston secured funding through the State of Texas' 1115 Waiver to provide clinical and supportive services to chronically homeless individuals. The City then contracted with Health Care for the Homeless—Houston and SEARCH Homeless Services to administer the program. One year later, in 2015, the first client moved into their housing unit, and ICCH was born.

The importance of the 1115 Waiver is difficult to overstate. The funding (and flexibility) that it provided was integral to the initial inception of ICCH as well as to its continued success. In fact, the waiver was so integral to the program's founding that all of the interviewees referred to ICCH as "the 1115 Waiver Program" or simply "the 1115 Program." This informal name has become so common that several interviewees did not even recognize that I was inquiring about the 1115 Program when I referred to it as ICCH. Therefore, these terms will be used interchangeably throughout this paper to refer to ICCH, especially in direct quotations from interviewees.

Literature Review

This project focuses on the intersections between housing and health and the potential for solutions to address the health issues of homeless individuals by merging housing and health policy. Accordingly, this literature review follows this problem-solution model. I begin by summarizing the literature on the extent of the problem of health challenges among homeless individuals. Then, I transition to a review of the various policy approaches to these issues in the realms of health (specifically the biomedical approach, the biopsychosocial approach, and the social determinants approach) and housing (specifically the linear approach and the housing first approach). Finally, I conclude with the potential for health and housing policy to be merged by giving an overview of various "housing as health care" approaches.

Health Among Homeless Individuals

Health Challenges

Homeless individuals have significant health care needs. They are much more likely than the general population to experience a wide variety of health conditions. They are nearly three times as likely to rate their health as "fair" or "poor" as their housed peers. Due to the difficulty of identifying homeless individuals, accurate aggregate data on the prevalence of different health conditions in this population is not easy to obtain. However, it is widely agreed that homeless individuals suffer a disproportionately high burden of chronic illnesses and infectious diseases (Salhi, White, Pitts, & Wright, 2018; Baggett, 2018; Tsai, Doran, & Rosenheck, 2013; *Housing and Homelessness as a Public Health Issue*, n.d.). Especially common conditions include bacterial infections, exposure-related skin conditions, tuberculosis, HIV/AIDS, hepatitis, cardiometabolic disorders (including coronary artery disease, hypertension, and diabetes), dental decay, substance use disorders, and mental illness (ranging from mild depression and anxiety to more severe psychotic disorders, such as schizophrenia). Addressing the health challenges of homeless individuals is particularly difficult because the relationship between housing and health is "bidirectional." On the one hand, mental health and substance abuse disorders increase an individual's chances of becoming homeless by making it more difficult for individuals to maintain stable employment and social relationships. On the other, the poor living conditions associated with homelessness (including exposure to cold, food insecurity, cramped living quarters, and increased risk of violence) can increase individuals' risks of experiencing adverse health outcomes (Baggett, 2018).

These health challenges have tragic consequences. Once again, exact aggregate mortality statistics are difficult to obtain. However, community-based studies indicate that the life expectancy of homeless populations is significantly lower than that of the general population. For example, studies from Philadelphia and New York City found mortality rates among homeless individuals to be 3-4 times higher than among the general population (Hibbs et al., 1994 ; Barrow, Herman, Córdova, & Struening, 1999). In sum, existing research indicates that the risk of mortality among homeless individuals is 1.5 to 11.5 times greater than the general population (*Housing and Homelessness as a Public Health Issue*, n.d.). In the United States, this results in homeless individuals living approximately 25 years shorter on average (O'Connell, 2005). This disparity highlights the immense health needs among homeless populations and the insufficiency of existing policy in addressing this issue.

Health Care Utilization and the "Revolving Door"

Homeless individuals utilize hospital and emergency department services at much higher rates than the general population (Kushel, Vittinghoff, & Haas, 2001; Feldman et al., 2017). This elevated usage is largely the product of a "revolving door" of emergency care utilization. In this cycle, homeless individuals are treated in emergency settings, stabilized, and discharged onto the streets or into emergency shelters with little or no support. A retrospective analysis of medical charts by Doran, et al. found that 50.8% of homeless individuals hospitalized during the study period were readmitted within 30-days of discharge. This figure was triple that of non-homeless patients in the study population and significantly above the average readmission rate nationwide. Among homeless patients in the study, discharge to unstable housing situations (including the street and temporary shelters) was a significant predictor of readmission (Doran et al., 2013). Other studies have found similar results (Saab, Nisenbaum, Dhalla, & Hwang, 2016; Lam, Arora, & Menchine, 2016; Rosendale, Guterman, Betjemann, Josephson, & Douglas, 2019; Dirmyer, 2016).

Some of this pattern of high utilization of emergency services can be explained by lack of access to insurance, which bars individuals from seeking less costly, preventative care (Baggett et al., 2010). However, this pattern of high utilization persists even when controlling for other potentially relevant factors, including insurance status. A study of homeless Medicaid recipients in Massachusetts found that homeless individuals used emergency medical services at higher rates than their housed peers, despite their insurance coverage. 33% had one or more hospitalizations and approximately 67% had at least one ED visit in the study period (Lin et al., 2015). Similarly, homeless veterans (who receive insurance coverage through Veterans Affairs) have been found to be four times more likely to utilize ED services than housed veterans (Tsai et al., 2013). In a Toronto study, homeless individuals were admitted to the hospital more frequently than housed individuals of the same socioeconomic status, age, gender, sex, and reason for admission (Saab et al., 2016). These findings are especially notable, as Canada has a universal health insurance system. In sum, this illustrates that, while an important first step, guaranteeing access to insurance is insufficient in ending the "revolving door" of emergency health care utilization among homeless populations.

Approaches to Health and Health Inequalities

The way that a problem is defined determines the solutions that are considered appropriate. As Farre and Rapley point out, in the realm of health, the ways that disease and medical work are conceptualized (by the medical profession itself as well as by governments, non-governmental organizations, and the public at large) are "paramount to understand[ing] the boundaries and scope of responsibility associated with such work" (2017, p. 1). Thus, before solutions to the health challenges of homeless individuals can be discussed, a common framework for understanding the problem must be delineated. Accordingly, this section focuses on varying ways that health, disease, and the role of the medical profession have been defined and how these definitions have evolved over time.

The Biomedical Model

Until the mid-twentieth century, health issues were understood almost entirely through a biomedical model. This model traces its roots to the mid-nineteenth century and Louis Pasteur's germ theory of disease (Sadigh, 2013). According to this model, disease is "fully accounted for by deviations from the norm of measurable biological (somatic) variables" (Engel, 1977, p. 379). This entirely biological notion of disease gives rise to the "doctrine of specific etiology." Under this

doctrine, ill health is caused by "specific diseases, each associated with a specific biological process." The cause of a disease "is biologically specific" (Ibeneme, Eni, Ezuma, & Fortwengel, 2017, p. 14). Thus, under the biomedical model, treating a health issue is a relatively straightforward task. Medical providers must simply identify its biological cause and target it with treatment.

This model has been critiqued for being simplistic and reductionist, as it limits understandings of illness to biological factors and excludes other potentially relevant variables (such as psychological or social factors) (Engel, 1977; Sadigh, 2013; Fuller, 2017). Furthermore, this "narrow definition" of disease has been criticized for giving rise to a "'narrow definition' of medical work," limiting it to only "the physical aspects of illness" (Farre & Rapley, 2017, p. 2). Many believe this narrow approach to be insufficient, pointing to the persistence of health inequalities between advantaged and disadvantaged social groups despite twentieth century biomedical advances (Braveman & Gottlieb, 2014; *Closing the gap*, 2008; Link & Phelan, 2002; Marmot, 2007; Singh et al., 2017). Despite these critiques, the biomedical model has remained the predominate paradigm in medical education and health care into the twenty-first century (Link & Phelan, 2002; Wade & Halligan, 2017).

The Biopsychosocial Model

In response to the perceived insufficiency of the biomedical model, George Engel proposed the biopsychosocial model of health in 1977. This model aims to push medicine beyond the boundaries of biology by "tak[ing] into account the patient, the social context in which he lives, and the complementary system devised by society to deal with…illness" (Engel, 1977, p. 386). Accordingly, Engel takes a general system theory approach to medicine. This approach is based on the idea that the world is made up of an array of different systems, all of which are "structurally and functionally interconnected from level to level with continuous feedback loops" (Farre & Rapley, 2017, p. 2). Engel's model defines disease not as an isolated biological incident but a product of multiple levels of human existence. These include the individual psychological level, the underlying biological level, and the overlying social level of society. In this way, Engel sought to bring a more holistic approach to medicine. A schematic representation of Engel's model can be seen in Figure 1 below.

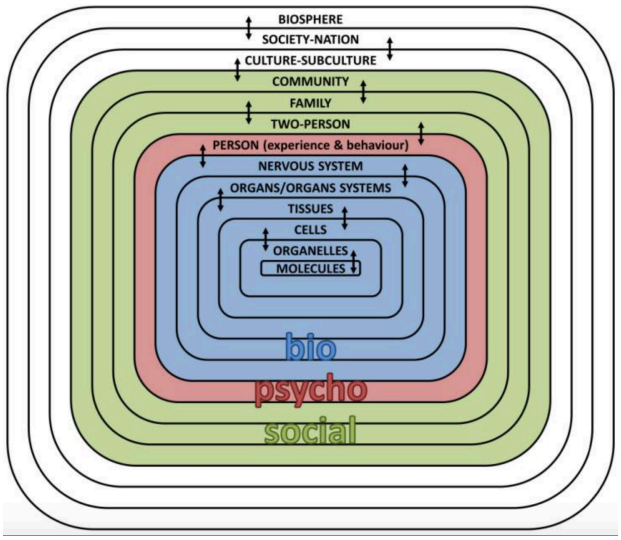

Figure 1. Engel's Biopsychosocial Model. This figure illustrates the different levels impacting an individual's health and how those levels interact with each other (Farre & Rapley, 2017, p. 3).

Nevertheless, Engel's model has been widely critiqued as being underdeveloped and vaguely defined, and thus untestable and difficult to put into practice (Farre & Rapley, 2017). Others have argued that, while it makes positive steps by incorporating an individual's psychosocial environment, it fails to consider how social factors may impact an individual's material physical environment. For example, individuals of lower socioeconomic status not only experience psychosocial stressors associated with their class status but may also live in materially deprived neighborhoods or not have access to sufficient nutritious food. Thus, Engel's model is insufficient because it does not include the "material pathway from social structure to health inequality" (Elstad, 1998, p. 613). Nevertheless, Engel's biopsychosocial model represents an initial shift in the way that health and medicine have been conceptualized.

The Social Determinants of Health (SDH)

In response to this insufficiency, there has been an increasing movement toward a social determinants of health (SDH) approach to health and health policy (Braveman & Gottlieb, 2014). The SDH approach differs from the biomedical in two key ways. First, it focuses on upstream factors that influence health as opposed to immediate biological causes. Second, it looks beyond the specific individual in question to the broader societal forces that influence that individual. SDH are "the conditions in which people are born, grow, live, work and age" that affect health status as well as the "drivers of these conditions" (World Health Organization, 2008, p. 1). The SDH can include a wide variety of factors, including but not limited to socioeconomic status, race, gender, neighborhood quality, and housing status. In addition, a growing body of literature indicates that an individual's social support network is a critical determinant of health, with research connecting low levels of social integration to higher rates of mortality for a wide variety of conditions, including heart failure, diabetes, and breast cancer (Luttik et al., 2005; Reblin & Uchino, 2008). This relationship has also been explored specifically with regards to homeless individuals, with links being found between higher levels of perceived levels of social supports and better physical and mental health outcomes among homeless adults (Hwang et al., 2009).

One way the social determinants are thought to impact health is through toxic stress. Though based in an individual's social context, the actual pathway of this mechanism is primarily biological. Exposure to stress leads to pro-inflammatory responses and the production of stress hormones, like cortisol. This can cause physiologic changes that result in "wear-and-tear" on the body (also known as allostatic load). High stress has also been linked to epigenetic changes in an individual's DNA and cellular aging through telomere deterioration. Allostatic load and epigenetic changes can result from a variety of stressful life experiences, including economic disadvantage, stressful work conditions, and intimate partner or familial violence (Braveman & Gottlieb, 2014). For example, a link has been hypothesized between the stress associated with the "cumulative socioeconomic disadvantage" experienced by African-American women and biological deterioration (or "weathering") of these women's bodies. This biological deterioration has in turn been connected to phenomena like the black-white infant mortality differential (Geronimus, 1992). This differential is stark. In 2013, black infants in the United States were more than twice as likely to die in their first year of life as white infants (11.2 deaths per 1000 live births versus 5 deaths per 1000 live births) (Smith et al., 2018).

Another pathway through which social conditions are thought to affect health is resource-based. In 1995, Link and Phelan published their "Social Conditions As Fundamental Causes of Disease." Their work emphasizes the central role that social conditions (such as race, gender,

education, and socioeconomic status) play in the development of disease and argues that health issues cannot be fully addressed until these conditions are taken into account. Link and Phelan do not eschew the role of biology. In fact, they explicitly acknowledge the role of long-term toxic stress in causing disease and ill health. However, they consider these biological mechanisms to be proximal causes and urge epidemiologists and policymakers to look even further upstream to the social conditions that cause individuals to be exposed to heightened levels of stress (Link & Phelan, 1995).

Link and Phelan's argument rests upon two key ideas: contextualizing risk factors and the theory of fundamental causes. Prior to their paper, epidemiology had focused primarily on causes to disease for which "biological plausibility" could be determined. For example, conditions like diabetes were linked to poor diet, HIV/AIDS was linked to risky sexual behavior, and a wide variety of conditions were linked to toxic stress, as described above. Contextualizing risk factors pushes this model one step further by asking those in the medical field to consider the factors that cause people to be "exposed to risk or protective factors" (Link & Phelan, 1995, p. 85). For example, individuals may be more at risk of developing a poor diet if they are unable to afford healthy foods. Poor women who rely on prostitution as a "survival strategy" may be forced by socioeconomic circumstances to engage in risky sexual behavior (Link & Phelan, 1995).

The second of Link and Phelan's ideas, the theory of fundamental causes, aims to explain why disparities in health persist despite dramatic improvements in public health and life expectancy over the course of the twentieth century. They argue that disparities persist because social factors determine an individual's ability to access vital resources, such as "money, knowledge, power, prestige…and social support and social network" (Link & Phelan, 1995, p. 87). Privileged individuals will always have greater access to these resources than less privileged individuals, and these resources are "transportable." For example, socioeconomic status is a fundamental cause of disease. Wealthy individuals will always be better able to utilize emerging scientific knowledge to avoid disease than poor individuals, whether that knowledge be related to the dangers associated with smoking, a high-fat diet, or unprotected sexual behavior.

Thus, fundamental causes of disease have two key characteristics: 1) they impact multiple diseases and multiple risk factors and 2) they persist even when particular risk factors change. Because of this, Link and Phelan (1995) argue that interventions focused on individual diseases or behavioral characteristics will be insufficient. Instead, the underlying structural factors that determine the distribution of social resources that enable people to properly care for their health and avoid risk factors must be addressed.

This theory cannot be directly tested in an experimental setting. However, it can be tested by seeing whether or not its logical correlates are true. For example, if the fundamental cause theory is correct, disparities should increase as risk factors become better understood. In addition, disparities should be smaller for health conditions for which risk factors are poorly understood or for which social resources cannot be used to mitigate risk. A 2004 study found exactly that. Individuals with more social resources were significantly less likely to die from diseases that physicians rated as "preventable" (such as pneumonia, influenza, and chronic obstructive pulmonary disease) than individuals with fewer social resources. However, this disparity was significantly smaller for diseases rated as less preventable (such as arrhythmias and pancreatic, prostate, and breast cancers) (Phelan et al., 2004).

Acceptance of the social determinants of health framework has been increasing in recent years. In 2005, the World Health Organization established the Commission on Social Determinants of Health. In 2008, the Commission published its final report, which called for "closing the health

gap" between advantaged and disadvantaged members of society by "improv[ing] daily living conditions" and "tackl[ing] the inequitable distribution of resources" (World Health Organization, 2008, p. 2). Since then, similar calls for action on the SDH have been issued in the US. In 2010, the US Department of Health and Human Services added the SDH as a topic area in their Healthy People 2020 initiative. This trend has been supported by a larger call to shift the way that US health care is financed from a fee-for-service model (which pays for the quantity of services provided) toward a value-based care model (which pays for the quality of care provided based on associated health outcomes) (Donkin et al., 2018).

Thus, the SDH have been gaining support, and health care stakeholders and policymakers are increasingly moving toward the SDH framework in the hopes of improving outcomes, reducing inequalities, and cutting costs. Nevertheless, despite this growing recognition of the need to address the SDH, the question of how best to do so through policy remains uncertain. This research project hopes to add to the growing literature on how the SDH can be addressed in practice.

Approaches to Housing

The Linear Approach

In the United States, a linear approach to housing policy has dominated policy discussions for the past three decades (Perl & Bagalman, 2015). This approach requires individuals experiencing homelessness to pass through a series of sequential steps (including placement in emergency shelters and transitional housing) before obtaining permanent housing. In addition, individuals are required to meet specific milestones, such as obtaining employment or achieving sobriety, to progress from one step to another (Williams, 2017).

Emergency shelters serve as the first step in the "staircase model" embodied in the linear approach. These shelters are highly controlled environments, in which clients are under surveillance by caseworkers and are subject to a strict set of rules. Once individuals have proven themselves capable of being "housing ready" under these circumstances, they "graduate" to successively less constrictive settings until they are returned to "long-term stable housing" (Williams, 2017). Those who fail to complete these prerequisite steps are presumed "noncompliant" and unwilling to let go of the "dysfunctional behaviors and choices that supposedly created their homelessness" (Williams, 2017, p. 6). A focus on the linear model was codified into federal law with the passage of the Stewart B. McKinney Homelessness Assistance Act in 1987, which emphasized federal funding for emergency shelters (Williams, 2017).

The linear model has been criticized for creating a system in which an individual has to "earn" housing and perpetuating an idea that homeless individuals must be "reformed" in order to be worthy of help (Williams, 2017). Furthermore, the concept of emergency shelters has been critiqued as being based on a belief that individuals experiencing homelessness are "too dysfunctional to make appropriate choices" about their lives and housing situations. They are seen as emphasizing the role of personal responsibility in housing status and painting homelessness as an individual rather than a social problem (Williams, 2017, p. 7).

Housing First (HF)

Responding to these perceived insufficiencies in the linear approach, Dr. Sam Tsembaris founded Pathways to Housing, a non-profit housing organization in New York City, in 1992. Pathways to Housing is widely credited as creating the Housing First (HF) model (Tsemberis, 2011). In contrast to the linear approach, the HF approach does not require individuals to progress through a series of transitory placements or achieve any individual milestones (Williams, 2017).

Instead, HF focuses on placing individuals into permanent housing as an immediate goal. The HF model has been applied to two main types of housing assistance: rapid re-housing and permanent supportive housing. The former is aimed at individuals and families who need less intensive support services and whose experiences with homelessness have been short-term and transitory. Rapid re-housing typically focuses on providing short-term rental assistance. The latter is aimed at individuals and families who have more complex needs (such as chronic health conditions or substance use disorders) and who have more chronic, long-term experiences with homelessness (*Fact Sheet: Housing First*, 2016).

Permanent supportive housing (PSH) programs that utilize an HF model can take many forms. However, they all share the following basic characteristics: an immediate (or almost immediate) placement of individuals into permanent housing, the provision of voluntary supportive services (such as counseling), a harm reduction approach to substance abuse issues, and policies to continue providing case management services as well as right of return to clients who temporarily leave their housing placements (Pearson et al., 2007). In summary, these HF approaches have low barriers to entry and focus on providing clients with the support services needed to maintain tenancy rather than requiring them to achieve stability before being accepted into the program. The ICCH program in Houston falls into this permanent supportive housing HF category.

Despite their commitment to providing individuals housing without first achieving certain prerequisites or behavioral milestones, HF models do not eschew attempts to promote behavioral change, such as achieving sobriety, employment, or adherence to medical recommendations. They simply attempt to meet program participants where they are and work with them toward positive changes, rather than placing the onus of change entirely on the individual. HF models are varied in their approaches, and there is no one set model for working toward this change. However, one common approach is centered around Prochaska's Transtheoretical Model (TTM) of behavior change. The approach used by the ICCH program in Houston is based upon this model. The transtheoretical model adds a temporal dimension to behavioral change, conceiving of it not as a discrete event but a gradual process. This process consists of six stages, collectively referred to as the Stages of Change. These stages include precontemplation, contemplation, preparation, action, maintenance, and termination (Glanz et al., 2015). A table providing a brief description of each stage of change can be found below. This model has been shown to be applicable to a wide variety of health behaviors, including smoking cessation, alcohol and substance abuse, adherence with recommended mammography screenings, diet and exercise habits, and even the use of sunscreen (Norcross et al., 2011; Prochaska & Velicer, 1997).

Stage	**Definition**
Precontemplation	No intention to take action in the next 6 months, no behavioral changes
Contemplation	Intends to take action in the next 6 months, no behavioral changes
Preparation	Intends to take action in the next 30 days and has taken some behavioral steps in this direction
Action	Changed overt behavior for less than 6 months
Maintenance	Changed overt behavior for more than 6 months

Figure 2. The Transtheoretical Model's (TTM) Stages of Change. This figure was adapted from Glanz et al. and provides a brief description of the stages of change as described by Prochaska (2015, p. 127).

An understanding of the Stages of Change is vital, as an individual's current stage will determine what interventions will be most effective in helping them make progress toward eventual behavioral change. For example, an individual in the precontemplation or contemplation stages will not benefit from typical action-oriented programs, as they are ambivalent to changing their behavior. Instead, TTM encourages providers to use techniques that help individuals in these stages explore their current situation, their future goals, and how their behaviors may be preventing them from achieving these goals. This process of identification and "consciousness raising" in turn helps individuals decrease ambivalence and develop internal motivation for behavioral change. This "stage-matching" approach has been found to be effective in improving behavioral change outcomes for a wide variety of health behaviors (Prochaska & Velicer, 1997).

By requiring individuals to make positive behavioral changes prior to obtaining housing, linear approaches essentially limit themselves to individuals who are at least in the preparation stage. In contrast, HF programs based on the transtheoretical model (like ICCH in Houston) work on guiding their participants through the Stages of Change to eventually achieve behavioral milestones, such as sobriety or adherence to prescribed medical treatment regimens. Research on the Stages of Change has given rise to a general rule that, for any given behavior among an at-risk population, approximately 40% of individuals are in the precontemplation stage, 40% are in the contemplation stage, and 20% are in the preparation stage (Prochaska & Velicer, 1997). Given this distribution, advocates of the HF model argue that it is better able to meet the needs of individuals experiencing homelessness, as it does not exclude the large segments of the homeless population (up to 80%) who may not be willing or able to change so-called "problem" behaviors on their own.

Consensus is growing that the HF approach is both more humane and more effective than the linear approach (Glanz et al., 2015). HF models have proven to be effective in keeping participants stably housed and in helping them reach their non-housing goals. It has been found to reduce homelessness, increase housing stability and length of housing tenure, reduce emergency department utilization and hospitalization, and increase participant satisfaction with their housing placements (Rog et al., 2014; Aubry, Ecker, & Jetté, 2014). Among individuals with a history of substance abuse, HF models have been shown to significantly reduce rates of substance use compared to linear models (Padgett et al., 2011). HF models have also been shown to increase clients' sense of agency and choice, strengthen social relationships, and result in higher overall quality of life scores (Aubry, Ecker, & Jetté, 2014).

Furthermore, the benefits of HF go beyond improved outcomes for homeless individuals. By reducing individuals' usage of emergency medical and jail services, HF models can also reduce overall government costs. In Denver, an HF model produced a savings of $4,745/person. This amounted to $711,734 in total (Perlman & Parvensky, 2006). Given that 5% of Medicaid recipients accounted for 50% of Medicaid costs, HF models that target these so-called "super utilizers" have high cost savings potential (*Medicaid: A Small Share of Enrollees Consistently Accounted for a Large Share of Expenditures*, 2015).

Some support the transition to HF as a matter of honoring human rights. Others, including the US government, are drawn to it primarily as a cost-saving measure, as discussed with regard to Medicaid costs in the previous paragraph. Nevertheless, regardless of reason or underlying motivation, the HF approach is spreading rapidly, and many housing organizations around the United States are endorsing HF and transitioning to HF models in their programming. The model has been embraced by the US Department of Housing and Urban Development and the US Department of Veteran's Affairs as a best housing policy practice (Perl & Bagalman, 2015). It has even been endorsed by the United States Interagency Council on Homelessness, the agency within

the executive branch of the US government in charge of implementing federal policies aimed at reducing homelessness (Williams, 2017).

In practice, HF has been largely limited to chronically homeless individuals, especially those with mental health and substance use issues (Williams, 2017). Thus, although the literature indicates that HF is a promising approach to reducing homelessness, more study is needed of its efficacy in different population groups before its use can be generalized. Furthermore, the approach faces limitations in regards to feasibility. In order to meet demand, HF relies on a sufficient supply of affordable, low-income housing. So far, the necessary investments to create this housing stock have not been made. In contrast, there is a large (though still insufficient) infrastructure of emergency shelters and transitional housing programs in the United States. Therefore, HF faces legitimate critiques regarding practicality in the current US context. As a result, some have dismissed it as idealistic, if theoretically sound (Foscarinis, 2008).

Merging Housing First and the Social Determinants of Health

The social determinants of health framework can be used to explain the persistent health challenges of homeless individuals despite their high levels of health care utilization. Homelessness itself is a social determinant of health. Homelessness can "cause or exacerbate" health problems by exposing individuals to poor living conditions and an increased risk of violence. In addition, homelessness can make it more difficult for individuals to care for their health and manage pre-existing health conditions (Baggett, 2018). For example, homeless individuals do not experience higher rates of conditions like diabetes. However, this condition is much less likely to be well controlled among homeless populations due to the high cost of medications, difficulties in properly storing insulin, and dietary difficulties (including food insecurity and limited food choice at shelters) (Baggett, 2018; *Housing and Homelessness as a Public Health Issue*, n.d.; Keene, Henry, Gormley, & Ndumele, 2018).

Furthermore, individuals experiencing homelessness are often affected by a wide variety of other SDH, including low socioeconomic status, low educational status, high rates of unemployment, and early experiences of trauma (Stafford & Wood, 2017). All of these factors make it incredibly difficult for individuals experiencing homelessness to properly care for their health, as discussed above (and as will be expanded upon in my discussion of findings). In this way, homelessness itself can be viewed as the fundamental cause of these individuals' diseases. If policy hopes to improve the health conditions of these individuals, addressing this underlying cause may be more effective. The combination of housing first and permanent supportive housing provides evidence-based policy models through which to do so. Thus, combining emerging best practices from the worlds of health and housing policy yields a potentially promising cross-sector approach to the health issues of homeless individuals.

Several programs have taken just such an approach, and their initial results have been encouraging. The Frequent Users Service Enhancement (FUSE) in New York provides permanent supportive housing services using a housing first model to high-risk homeless individuals and unstably housed Medicaid recipients. After one year, 91% of the 200 participants remained stably housed and per person crisis medical costs were reduced by $7,308. Bud Clark Commons, a housing first-health care partnership in Oregon, has seen similar results. One year after the program began, 80% of participants remained stably housed and individual Medicaid claims were reduced by 55% (*Housing and Homelessness as a Public Health Issue*, n.d.). In San Francisco, an analysis of outcomes among 236 adults with psychiatric and substance use disorders participating in a housing first program found that 81% of residents remained housed after one year and that the

program reduced usage of emergency department services by 56% and hospitalization services by 8% (Martinez & Burt, 2006). The main program under analysis in this paper, ICCH, as well as the two programs I explore more briefly, Los Angeles' Housing for Health and Chicago's Better Health Through Housing, have seen similar reductions in ED utilization and improvements in health outcomes. These outcomes will be discussed more in-depth in the discussion of findings.

However, the evidence regarding "housing as health care" programs is far from conclusive. Some analyses have found no substantial evidence that these programs improve health outcomes (although they acknowledge that many participants would have likely seen a "significant worsening" of their health had they not participated in these programs) (National Academies of Sciences, 2018). Even among successful programs, more research is needed to delineate the mechanisms of success and clarify the model as well as to determine the potential for these programs to be scaled up (Rog et al., 2014).

By exploring the Houston ICCH program, this research project seeks to add to this broader conversation about the relative effectiveness of and mechanisms behind these "housing as health care" models. Through qualitative interviews with program staff, I hope to incorporate a more human factor into this existing body of quantitative literature and to ultimately help determine if these programs are viable policy solutions for addressing the dual health difficulty of chronically homeless individuals.

Methodology

Defining "Homelessness"

Before an exploration of the intersections between homelessness and health can begin, the term "homelessness" must be defined. This is not an easy task. Many in the non-profit world, including those at HHH and SEARCH, prefer to use a self-identification strategy. This strategy relies on individual perception and experience as the primary qualification for classification. It allows individuals experiencing a wide array of unstable housing situations to be categorized as "homeless," including those who have been without shelter for only a short time and those who are couch surfing.

However, the definition used by the US government is much more objective. According to the US Department of Housing and Urban Development (HUD), a person is considered "homeless" if they are "sleeping in a place not meant for human habitation OR living in a homeless emergency shelter." Furthermore, an individual is considered "chronically homeless" if they have been homeless for at least one consecutive year or have experienced "at least four episodes of homelessness in the past three years" in addition to having a "disabling condition" ("Defining Chronic Homelessness," 2017). Because ICCH is reliant upon federal funding, an individual must meet the HUD definition of "chronically homeless" to be eligible for the program's services. For this reason, this research project utilizes the federal definition of homelessness as opposed to a self-identification strategy.

Justification of the Chosen Case Study and Defining the Field

Approaches to the health issues of homeless individuals that focus on the social determinants of health are still relatively new. As a result of this novelty and the relatively isolated nature of these "housing as health care" programs, aggregate data on the outcomes of these programs is not available. Without this aggregate data (including health outcomes, medical costs, housing retention rates, etc.), the effectiveness of these programs cannot be properly assessed. The case study research design was thus chosen to ensure that individual experience and outcome data could be obtained and linked to specific programs. Furthermore, the case study approach allows for an in-depth examination of the ICCH program, providing the opportunity to analyze not only the program's success but potential program policies and features that may serve as mechanisms for producing program outcomes.

The ICCH program in Houston, Texas has been drawing a fair amount of attention, both for its innovative approach and its apparent initial success. By utilizing state Medicaid dollars to pay for clients' housing, ICCH runs counter to typical conceptions of what constitutes health care. Furthermore, existing outcome data indicates that this approach is working. ED utilization among ICCH participants has decreased by 71.05% and scores on physical and mental health surveys have increased (Schick et al., 2019). I am interested in investigating the program further to better understand the mechanisms underlying these outcomes.

Nevertheless, despite this apparent success, the future of the program is in jeopardy. The City of Houston and ICCH have been under increasing pressure to prove the program's effectiveness to a conservative state legislature. It is for this reason that I have chosen to focus on ICCH, as opposed to other programs across the country. This tense city-state political dynamic provides another aspect to explore and highlights that innovative "housing as health care"

initiatives can be implemented at the community level and are not necessarily limited to states where there is broader governmental support.

Although I utilize ICCH's own quantitative evaluation of program outcomes in my analysis, my primary methodology centers around qualitative interviews. The majority of my interviews were with individuals involved in the ICCH program. These include program administrators, clinical case managers, care coordinators (also referred to as community health workers), and nurses. I also expanded the field of my case study to encompass other stakeholders in the Houston area who work at the intersections of housing and health care. These include medical doctors at emergency departments in the city and individuals working at traditional homeless service organizations, such as emergency shelters.

Although my project primarily focuses on individuals associated with the ICCH program in Houston, I conclude by expanding my analysis beyond this limited field through interviews with professional stakeholders at two other "housing as health care" programs, Housing for Health in Los Angeles and Better Health Through Housing in Chicago.

Data Collection

My data collection consisted of a series of interviews with individuals involved, either directly or indirectly, with ICCH in Houston as well as individuals associated with similar "housing as health care" programs around the country. To identify potential interviewees, I began by researching ICCH and similar programs. Once I had selected organizations of interest, I reached out to individuals working at those organizations via email, offering a preliminary introduction of the project and asking if I could conduct an informational interview with an individual at the organization. Once these initial informational interviews were conducted, I asked if the program would be open to me speaking with more of their employees. I then relied on a snowball sampling technique, in which the initial person I interviewed connected me with other able and willing participants at their organization or at similar organizations within the city.

Interviews were conducted either via phone or in-person. All interviews were recorded, with the consent of the interviewee, as well as documented through my own notetaking. Each interviewee was given the option to remain anonymous. All of my interviews lasted approximately one hour and were semi-structured. General interview topics included the background of the interviewee and their relationship to the program under consideration, the relationship between housing instability and health and health seeking behavior, factors facilitating or preventing health management among homeless individuals, how "housing as health care" programs address these factors, aspects of the program that the interviewee felt were particularly effective, and continued areas of need and program recommendations. For a sample schedule of interview questions, see Appendix A.

In total, I interviewed 22 individuals: 12 professional stakeholders directly involved with ICCH, 6 housing and health providers working with homeless populations in other settings within the City of Houston, and 4 individuals involved in similar "housing as health care" initiatives in other cities across the United States. A list of interviewees and their organizational affiliations is provided in the table below. Some individuals indicated during the consent process that they preferred to remain anonymous and have thus been excluded from the table.

Table 1
Interviewees

Name	Organization	Role	City
Frances Isbell	Health Care for the Homeless Houston – Integrated Care for the Chronically Homeless	Executive Director	Houston, TX
Kristina Arscott	Health Care for the Homeless Houston – Integrated Care for the Chronically Homeless	Director of Social Services	Houston, TX
Bill Taube	SEARCH Homeless Services—Integrated Care for the Chronically Homeless	Clinical Case Manager	Houston, TX
Jessica Carmeci	Health Care for the Homeless Houston – Integrated Care for the Chronically Homeless	Clinical Case Manager	Houston, TX
Julia Dominguez	Health Care for the Homeless Houston– Integrated Care for the Chronically Homeless	Community Health Worker	Houston, TX
Joseph Benson, Jr.	Health Care for the Homeless Houston—Integrated Care for the Chronically Homeless	Community Health Worker	Houston, TX
Andrea Piro	Health Care for the Homeless Houston – Integrated Care for the Chronically Homeless	Registered Nurse	Houston, TX
Tyrone Evans	Health Care for the Homeless Houston—Integrated Care for the Chronically Homeless	Community Health Worker	Houston, TX
Nancy Miertschin	Harris Health Systems	Program Director	Houston, TX
Tamara Foster	New Hope Housing	Vice President of On-site Operations	Houston, TX
Erin Trytten, MSW	United Way of Houston	Senior Program Manager, Community Investment	Houston, TX
Betty Nunnally	Star of Hope Mission	Senior Vice President of Programs	Houston, TX
Sally Malone, MPP	Los Angeles County Department of Health Services - Housing for Health	Program Manager, Policy Planning	Los Angeles, CA
Joey Aguilar, Psy.D	Los Angeles County Department of Health Services—Housing for Health	Program Manager	Los Angeles, CA
Ben Darby	Center for Housing and Health—Better Health Through Housing	Program Manager	Chicago, IL
Abbie See	Center for Housing and Health—Better Health Through Housing	Program Manager	Chicago, IL

As with any research project, this study has several limitations. First, because of its case study design, the results of this project are not directly generalizable beyond the city of Houston. This is especially true considering the program under consideration, ICCH, has a small direct staff (15 members), limiting the number of potential interviewees. I attempted to partially address this limitation by expanding the scope of the project to include a brief survey of similar initiatives around the country. Nevertheless, it is important to acknowledge that, even with this expanded scope, the sample size is relatively small. Due to the limited sample size and the qualitative nature of the research design, the data collected is a reflection of the personal experiences of individuals interviewed. Thus, while this project is able to identify some of the intersections between housing status and health based on individual experiences and to offer policy recommendations based on the opinions of the professional stakeholders working to combat these issues, the small sample size limits the generalizability of these results. Further research with a larger sample size is needed. Nevertheless, the present study is an important first step in the process of understanding and addressing the intersections between housing and health among homeless populations and how these have been and can be addressed through policy.

Data and Discussion of Findings

While a growing body of research is confirming the impact of social conditions on health, the issue of how to address these social determinants of health is much less settled. This study seeks to add to the literature and to help fill this gap through an in-depth analysis of one program's approach (ICCH) to one social determinant of health: homelessness.

To begin, I explore the health challenges and barriers that individuals experiencing homelessness face. Then, I transition to an analysis of ICCH's efficacy in addressing these challenges, the structural and programmatic aspects of ICCH that staff and other related stakeholders feel contribute to its outcomes, and the persistent challenges that the program is facing. Finally, I explore ICCH's potential viability as a model for other programs by expanding the case beyond Houston through a brief overview of Los Angeles' Housing for Health and Chicago's Better Health Through Housing programs.

The Problem: Health Challenges Faced by Individuals Experiencing Homelessness

According to ICCH staff, the most common health challenges faced by program participants include cancer, cardiac conditions, diabetes, substance use disorders, and mental health conditions (A. Piro, personal communication, January 13, 2020).[3] These challenges closely mirror common health conditions among homeless individuals in general, as outlined in the literature review. Stakeholders assessments of health challenges among homeless individuals also mirrored Baggett's description of these challenges as "bidirectional." Stakeholders asked to identify intersections between housing status and health identified aspects of homelessness (including exposure to extreme temperatures, violence, and unhygienic living conditions) as having direct negative effects on health as well the tendency for health conditions (especially mental health and substance use disorders) to contribute to an individual's homeless status.

ICCH staff and other stakeholders working at the intersections of housing and health in Houston also identified several barriers to health care access that exacerbate these underlying health challenges. The most commonly cited barrier was cost. However, even once this initial direct barrier of cost is addressed and nominal access to care is achieved through insurance[4], individuals still face a multitude of more indirect barriers in accessing services. Among these, transportation was most often cited by interviewees. Joseph Benson Jr., a Community Health Worker (CHW) at Healthcare for the Homeless Houston, identified transportation as the "number one barrier for health care" among homeless individuals. Many individuals experiencing homelessness do not have access to their own means of transport, and the cost of public transport is often prohibitive. In addition to this cost barrier, the very act of navigating public transport can be too daunting for some individuals.[5] Another commonly cited barrier to access was the requirement that individuals have access to personal identification (which can be difficult to keep track of on the street) in order to receive health care services.

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[3] By virtue of her role as an RN, Andrea Piro was the primary source of information about the health challenges ICCH clients face. However, the same general list of common conditions was given by other ICCH staff, and mental illness and substance use disorders were especially emphasized by staff members.

[4] Either through federal assistance programs, like Medicare and Medicaid, or through local assistance programs. For example, Harris County has a Gold Card Program that provides financial assistance for low-income residents seeking care at any of the county's health providers.

[5] This is especially true for clients who have significant physical impairments as well as those with severe psychological illnesses (such as PTSD) that make navigating crowded public spaces difficult.

Additionally, there is what Josephine McNamara, who works with United HealthCare to create housing and health partnerships around the country, calls a "cultural component" to homelessness that can impede individuals' willingness to see medical providers. This cultural component stems from the trauma that many individuals experience while living on the streets. "Particularly if I've been on the street for a long time and I've experienced a lot of trauma," McNamara explained, "I'm not going to be overly willing to trust a lot of people…if I'm afraid of people who I don't know, just getting to the doctor might be a challenge" (personal communication, January 3, 2020). This sentiment was echoed by ICCH staff. Jessica Carmeci (CHW) connected this idea of mistrust explicitly to the medical community, saying that "for whatever variety of reasons" many of her clients "have not been treated well by other health care systems." This mistreatment ranges from the relatively common experience of doctors being rude and dismissing their concerns[6] (especially once a client has established a trend of high ER utilization in their medical record) to experiences of sexual assault by members of the medical community (J. Carmeci, personal communication, December 23, 2019). Thus, there are a wide-range of barriers that prevent homeless individuals from actually being able to access health care services, even once financial barriers have been accounted for.

Maintaining health and continuity of care can present its own challenges. Even after individuals are able to gain access to services, it can be difficult for them to care for their health and adhere to doctors' orders. Many individuals experiencing homelessness have low levels of education and health literacy, and many doctors do not take the time to explain the situation in terms that individuals can understand. As Andrea Piro (RN) points out, this is not true of all homeless individuals, "I mean, I have plenty of people with PhDs that are homeless, but a lot of people have poor education as well as vocabulary so…it gets complicated…so advocating for themselves and their needs or even understanding and knowing their needs because of low health literacy is a real barrier for them" (personal communication, January 13, 2020).

The very condition of being homeless also complicates adherence to medical recommendations. Joseph Benson Jr., a Community Health Worker (CHW) at Healthcare for the Homeless Houston (HHH), highlighted diabetes as an example. "A lot of the places that feed people," he said, "they don't think about diabetes. A lot of the meat that they feed them is pork…they over salt the food, you know, everything that's going to go against diabetes." He also highlighted the lack of fresh vegetables and fruit as posing a barrier to individuals with diabetes maintaining their necessary dietary regimens.

In addition to this dietary challenge, there is the much simpler question of medication storage. "Where are you going to keep your insulin?" Benson Jr. asked exasperatedly (personal communication, January 3, 2020). Kristina Arscott, Director of Social Services at HHH, also spoke about the difficulties of taking medication while living on the street, citing the chances of medication getting stolen, medication side effects that may make individuals feel unsafe (such as drowsiness), and the need to take certain medications with food (which can be difficult for food insecure individuals) as barriers to compliance (personal communication, January 10, 2020).

Homelessness can also pose particularly difficult challenges for individuals attempting to recover from substance use issues. Dr. Mandy Hill with the University of Texas Health System

[6] Carmeci's comment is corroborated by Dr. Mandy Hill, who is an Associate Professor and Director of Population Health in Emergency Medicine with the University of Texas Health System. Hill spoke about how homeless individuals, especially when they do not have insurance or they have built up a reputation as a "frequent flyer," are dismissed by some of her colleagues, saying, "so I do witness, 'Oh that's Joe Blow, he was here last week,' and there's a lack of compassion sometimes for those patients" (personal communication, December 11, 2019).

spoke about how, for many patients concurrently struggling with substance use and unstable housing, "substance use [is] more of a life coping strategy as opposed to just a random addiction…that substance use is a survival method, and that definitely minimizes readiness to change when it's perceived in that way" (personal communication, December 11, 2019).[7]

Houston, We Have a Solution?: An Analysis of ICCH

Now that the barriers homeless individuals face in accessing health care services and caring for their health are more clearly delineated, I transition to an examination of ICCH's approach to addressing this problem: providing individuals with housing services as an explicit part of their medical care plan. I begin by evaluating the apparent efficacy of ICCH based on a quantitative analysis conducted by a researcher affiliated with the program as well as my conversations with program staff. Then, I transition to distilling some of the program's key aspects and persistent problems based on my interview data.

Assessing Program Efficacy

Initial quantitative analyses of ICCH appear promising. Dr. Vanessa Schick, Associate Professor in the Department of Management, Policy, and Community Health at the UT Health Science Center, investigated the impact of ICCH on participants' emergency department utilization and overall health. To examine the former, Schick extracted data from participants' electronic health records (EHRs). These EHRs are shared across hospitals and health providers within the Harris County public health system, thus allowing for the tracking of participants' ED visits to any providers within that system. Among individuals actively enrolled in ICCH for at least 2 years, Schick found that ED utilization decreased 71.05% (a reduction from 570 total visits to 165 total visits and a reduction of the individual mean from 10.00 visits to 2.89 visits). Given how expensive ED visits are in comparison to other forms of health care, Schick notes that this reduction in ED utilization likely translates to a significant societal cost savings (Schick et al., 2019).

To investigate ICCH's impact on health-related quality of life (HRQOL), Schick used two metrics: PHQ-9 and SF-36. PHQ-9 is a 9-item questionnaire that measures individuals' experiences of depressive symptoms, with higher scores indicating greater levels of depression. SF-36 is a 36-item survey measuring individuals' overall self-reported health over eight subscales (physical functioning, role-physical, bodily pain, general health, vitality, social functioning, role-emotional, and mental health). These eight subscales can be broadly divided into a Physical Component Summary (PCS) and a Mental Component Summary (MCS). Scores on the SF-36 are normed to account for respondents' age and gender, and higher scores reflect higher HRQOL. ICCH participants completed the PHQ-9 and SF-36 upon entry into the program and again at 6-month intervals. After 1 year in the program, ICCH participants' MCS scores increased by a meaningful amount.[8] After 30 months in the program, their PCS scores had also increased by a

[7] Bill Taube, an LCSW with ICCH, also spoke to this issue, saying, "[t]here's a lot of self-medication going on. It's just a tough illness and it can kind of be all-consuming…there's just not a safe place to be and then how're you going to cope with that?" (personal communication, December 19, 2019).

[8] Rather than focusing on statistical significance, Schick analyzed whether results met the threshold of minimally important differences (MIDs). MIDs represent a level of improvement that corresponds to a clinically meaningful change in a clients' experience. This distinction is important, as a change in HRQOL may be statistically significant but yield no actual benefits to program participants. Therefore, Schick's results are even more compelling, as they

meaningful amount. Similar trends were seen in PHQ-9 scores, with ICCH participants reporting significant reductions in depression over the study period (Schick et al., 2019). In my own conversation with her, Schick described ICCH as a "unique program in that it increased the HRQOL of individuals but also has the potential for cost-reductions, including reducing potential ER use." It has "benefits both from a humanitarian and from a fiscal perspective" that "could be helpful for insurance companies, helpful for the state, helpful for people" (V. Schick, personal communication, January 10, 2020).

In addition to this quantitative approach, my own qualitative analyses indicate that ICCH is effective. The primary metrics through which ICCH evaluates its own progress are improvements in HRQOL, reductions in ED utilization, and improvements in housing stability. Among care team members that I spoke with, all reported that participation in the program had helped their clients improve with regard to these metrics.[9] All team members reported a general improvement in their own observations of clients' overall health. In particular, they pointed to improvements in mental health conditions. In addition to the general sense of well-being and security that having a stable housing situation can provide, several staff cited the ability to become stabilized on prescribed medications as playing a central role in mental health improvements.

To illustrate this general trend, one case manager told the story of two clients who had just recently moved into her building. Both clients had been diagnosed with and given medication for psychiatric conditions. However, while living on the street, neither of these clients took these medications, as the side effects (including drowsiness, impaired coordination, and memory issues) caused them to feel unsafe. Once they moved into housing, they felt secure enough to take their medications and were able to experience subsequent improvement in their mental health symptoms (personal communication, December 19, 2020).

Another common health condition in which staff reported seeing improvements was diabetes. After moving into housing, staff reported diabetic clients seeing significant improvements in their sugar numbers and overall disease management. These outcomes were attributed to having a safe place to store insulin, greater control over dietary choices, and access to an RN on-site to answer any pressing medical questions.

Furthermore, this perception of positive health impacts is not limited to members of the care team. The 1115 Program's housing provider has also taken note. Tamara Foster, Vice President of Onsite Operations at New Hope Housing, remarked that the "health component" of the 1115 Program "has made a very big difference to [NHH] operations and to those who call New Hope home" and has "significantly reduced the incidences of traumatic health issues in [their] buildings" in comparison to other more traditional affordable housing programs that do not offer wrap-around support services to their residents (personal communication, December 17, 2019).

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indicate changes in HRQOL that are likely noticeable to clients' and positively impact their actual experience and functioning, such as a detectable reduction in pain.

[9] This was expressed by all staff at various points throughout their interviews (and often multiple times in one interview). I have included some selected quotations in this footnote. "It's pretty amazing. I think…to have some health issues begin to get addressed makes a big impact…we do assessments every 6 months…and the mental health side there's usually a really big jump in the first year from being on the streets and then having a place to live…the [physical] health scores also tend to go up." (B. Taube, personal communication, December 16, 2019); "For the majority, yes. I think it's been super effective…" (A. Piro, personal communication, January 14, 2019); "Something that I found interesting, too, as I first started in the program was just that stability of having a house. Suddenly, they're not going to the ER. Suddenly they're making those PCP appointments and taking that medicine. And that's not for everyone, but it makes a huge difference" (personal communication, December 16, 2019).

In terms of ED utilization, one client is particularly memorable for Jessica Carmeci. Before entering the program, this individual had visited the ER over 200 times in the course of one year. In 2019, he only went 8 times. Carmeci acknowledged that, although still not the highest utilizer ICCH has served, this client is an extreme case. However, she says she has seen a similar trend (albeit on a much smaller scale) among a majority of her clients (personal communication, December 23, 2019). Carmeci's assessment was echoed by all other program staff interviewed.

All care team members also reported the program having a positive effect on their clients' ability to remain housed. As Andrea Piro noted, this improvement in housing stability extends beyond an individual's time with ICCH. Some individuals have achieved such a high level of stability that they are able to exit the program and "choose their own apartment." According to Piro, these "positive discharges" far outnumber the "negative discharges" (which occur when an individual withdraws from the program or has such severe behavioral issues that they lose their voucher and have to be evicted from their housing unit) (personal communication, January 13, 2020).

Furthermore, in addition to these primary health and housing metrics, staff also emphasized ICCH's impact regarding more amorphous human factors. In fact, it was these factors that staff pointed too more frequently as proof of program efficacy and client improvement. In addition to actual health improvements, all staff cited improvements in clients' health-related autonomy, as illustrated by their ability to navigate the health care system on their own and to advocate for themselves in the medical setting. Two staff members were particularly insightful on this issue. Jessica Carmeci (CHW) reported that "a very high percentage" of the clients that she has worked with became better able to attend medical appointments on their own, comply with doctor's orders for things like blood work and follow up appointments, and feel as though they are able to effectively communicate their health needs to their medical providers after entering the program (personal communication, December 23, 2019). Tyrone Evans (a CHW who has worked with ICCH from the program's founding) noted a similar trend among his clients. When clients first enter the program, Evans says they often require a lot of support in scheduling and attending medical appointments. However, as time goes on, they become more and more able to do so on their own. In his words, the clients "[become] so independent they don't need to talk to us about it. They're taking their own life on" (personal communication, January 17, 2020).

When asked about program impact, all staff members interviewed also told stories of clients reconnecting with long-lost family members. This process is not always immediate. One case manager described how many of her clients have "a lot of shame or embarrassment or burned bridges" that cause them to be initially reluctant to reach out to family members. However, the supportive environment of ICCH and the stability that housing provides often provides clients with the tools to help mend these relationships. The same case manager described how one of her clients, who initially had no interest in reaching out to his family, eventually decided to reconnect and invite them over for Thanksgiving dinner. "He told me all about it," she said, "and how proud he was to finally be able to tell them 'you can come to where I'm at'" (personal communication, December 19, 2019). Some may regard restoration of family ties as being unrelated to health. However, given that social support has been tied to health outcomes (as discussed in the literature review), it could be argued that this process of reconnection is an integral part of the process of improving clients' current and future health prospects.

In addition to reconnecting with family, over half of the staff interviewed brought up restoration of client dignity as one of ICCH's most important successes. This was especially true when speaking of clients who, unfortunately, had passed away. Although these outcomes are not

successes in the traditional sense of the word, they nevertheless illustrate a meaningful impact that the 1115 Waiver Program has had on its clients. With regard to these cases, staff members emphasized that, although their clients had passed away, they had not done so alone on the streets but in their own homes, surrounded by staff (and sometimes family members) who cared about them. Julia Dominguez, a CHW who has been with the program for over 5 years, summed up this sentiment, framing clients' deaths as evidence not of the program's failure from a health perspective but rather of its success from a housing perspective. In her words, "we have many of our clients who were homeless…and they died, but they died with dignity…so is that a success? Yes. Is it sad? Yes. *We've* [emphasis added] lost a lot of sick people, but *we* [emphasis added] lost them *because* [emphasis added] they were in their home" (personal communication, December 6, 2020).

It is important to note that, while care team members reported their clients experiencing generally positive outcomes, they were also quick to point out that these positive outcomes are not universal. ICCH targets an incredibly sick and disadvantaged segment of the population, and staff members stressed the importance of recognizing the realities of their clients' situations. As Andrea Piro (RN) noted, many clients enter the program with progressive "chronic disease states that [she] can't reverse." For these clients, "expectations of improvement…don't really exist, it's really kind of about stability" (personal communication, January 13, 2020).[10] Similarly, with regards to autonomy, some individuals' disabilities are so severe that they may never be able to navigate the health care system on their own. For example, approximately 70% of ICCH clients have a mental disorder. This does not mean that all of these clients are unable to care for themselves, as the severity of the disorder varies from individual to individual. However, for many clients, their mental health issues or neurocognitive deficits are so great that they will likely always need extra assistance and full autonomy and self-advocacy cannot be expected (T. Evans, personal communication, January 17, 2020).[11] Nevertheless, despite these realistic limitations, all program staff maintained that, in their own experiences, ICCH has an overall positive impact for a majority of clients.

Thus, based on self-reports from care team members, the 1115 Program has improved individuals' health and utilization of health care services, helped them to achieve stable housing, and helped them regain connection with family as well as more abstract senses of dignity and control over their lives. When combined with Schick's quantitative analysis, these qualitative results appear to indicate that ICCH is successful in its approach—improving individual outcomes while cutting costs.

Identifying Essential Components

Now that the relative efficacy of ICCH's approach has been established, I transition to an exploration of what it is about the program that makes it work. In other words: what are its essential components? Answering this question is especially important for policymakers who hope to learn from ICCH and potentially replicate its model in other contexts. Providing a conclusive answer to

[10] This is especially true given that many clients enter the program only for ICCH staff to find out that they are "sicker than [the staff] thought they were." Once clients begin receiving regular health care, it is not uncommon for doctors to find out that clients have conditions they were previously unaware of (especially common are undiagnosed cancer and diabetes) (J. Benson, Jr., personal communication, January 10, 2020).

[11] For example, one staff member related the story of a client who had such severe neurocognitive damage that he had a short-term memory of only 15 minutes. For this individual, expectations of full independence are simply out of reach (personal communication, December 19, 2019).

this question is difficult and, given the qualitative design, definitively establishing causal mechanisms is beyond the scope of this study. Nevertheless, there is much to be learned about what makes ICCH effective from the staff who live and work with it every day. In my interviews with staff, they identified several aspects of program services that they felt made ICCH particularly effective. These included services being comprehensive, coordinated, and client-centered. These factors are discussed in more depth in the remainder of this section. A table summarizing each factor and distilling its core components can be found below.

Table 2
ICCH Essential Components

Factor	**Description**	**Examples**
Comprehensive	Recognizing that, although the provision of housing is a necessary first step, clients have a wide variety of needs that must also be addressed	-Emotional support services during (and after) the transition into housing -Health education -Financial literacy and budgeting -Provision of bus fare -Cooking classes -Substance abuse counseling groups -Job training
Coordinated	Integrating all aspects of care so that all members of a client's team are working toward a shared set of goals and facilitating communication among team members in order to achieve these goals	-Creating care teams -Single plans of care -Locating care teams at housing sites -Weekly care team meetings -Access to a shared electronic health record -Utilizing a shared clinical language
Client-Centered	Meeting clients where they are and allowing them full autonomy over their own care	-Voluntary services -Allowing clients to set their own goals, even if those differ from the "ideal" goals of care team members -Motivational Interviewing

Comprehensive

One of the most salient themes that arose in my interviews with stakeholders associated with ICCH was that, although housing is an integral part of improving individual client outcomes, it is not the final solution. Rather, it is only the first step. Providing continued support services to an individual after they are housed is essential. In fact, for many ICCH clients, moving into housing can be a challenge in and of itself. Julia Dominguez (CHW) spoke about how, for someone who has been on the street for years, suddenly coming into housing can be "its own kind of trauma" (personal communication, December 6, 2019). Bill Taube, clinical case manager and Licensed Clinical Social Worker, also spoke on this theme. "If someone has really been deeply isolated and living in survival mode, now living in a social situation is very different," Taube explained, "and those skills that you needed to survive on the street to stay alive, you keep applying those in a social situation…it's not going to go well….So there can be a real adjustment there" (personal

communication, December 19, 2019).[12] Clients need special supports to make that adjustment. These supports can take many forms. They can range from formal therapy to a simple understanding and willingness among staff to address apparent "problem behaviors" (such as client aggression or an initial refusal to sleep in their apartment) with care and compassion. As Julia Dominguez put it, she recognizes the challenges associated with this transition and does her best to "love" her clients through it (personal communication, December 6, 2019).

In addition, many clients who have been homeless for a prolonged period of time need assistance developing or relearning the skills necessary to maintain housing. Jessica Carmeci, CHW, spoke at length about this issue:

> "That is something that people don't consider. They think that once you get someone an apartment that they can afford, then they don't need anything after that. And that's just not true. We have people that have been homeless for more than 10-20 years come into housing and they have no idea how to function in a community environment, how to get along with others, how to do even just simple tasks like housekeeping in their apartment. If they haven't bagged up their trash and taken it to the dumpster in twenty years, that's a skill you have to relearn. When you haven't had access to a kitchen in 20 years, you don't remember what it's like to use a stove. So those are all skills, those just basic life skills that we have to reteach people" (personal communication, December 23, 2019).

ICCH addresses this by providing classes on being a good neighbor and paying for utilities, facilitating communication between clients and the property's landlord, and assisting clients with cleaning in order to pass unit inspections.

In a similar vein, homeless individuals often sit at the intersection of a wide array of social determinants of health. This connects to the barriers identified by stakeholders in the previous section. In addition to the literal condition of being without a home, stakeholders also identified a wide variety of other factors, including low socioeconomic status, low levels of education and health literacy, and lack of access to transportation, as being detrimental to the health of homeless individuals. Recognizing and addressing these intersections is essential to program success. Therefore, to improve individual outcomes, ICCH not only provides individuals with a place to live but also with services to address these other factors. In this way, ICCH's comprehensive awareness of the problem becomes a key aspect of facilitating the solution. The services that ICCH provides to its clients are so wide-ranging and tailored to the individual that it is difficult to provide a complete overview.[13] However, the services most commonly mentioned by program staff are highlighted below.

CHWs play the primary role in helping individuals address barriers related to cost and socioeconomic status. They help clients apply for federal assistance, including Medicaid, Medicare, supplemental security and social security disability income (SSI/SSDI),[14] and

[12] Taube gave the specific example of aggression, "Because, you know, on the streets you can't back down and you're going to need to do this or that and be very aggressive sometimes. And aggressive behavior is going to be frowned upon in a social situation" (personal communication, December 19, 2019).

[13] As Julia Dominguez (CHW) said, "It's hard to put into words when you ask because there's so much stuff that we really do. I guess I could get my job description out, but it does not do justice to what we really do. We're just, we're on the ground warriors in the war zone…and so our tasks are defined to 'navigate medical care,' but it's so much more than that" (personal communication, December 6, 2019).

[14] To assist with this process, all of ICCH's CHWs are SOAR certified. SOAR is a national program that provides training to case managers on how to fill out SSI/SSDI applications for individuals who are homeless or at risk of

Supplemental Nutrition Assistance Program (SNAP) benefits. Considering that a majority of ICCH clients enter the program with zero income, this initial procurement of benefits is crucial to helping individuals meet their basic medical and non-medical needs (T. Evans, personal communication, January 17, 2020). In addition, when possible, CHWs also help clients gain meaningful employment to set them up for future economic stability. This includes helping them with the job search process as well as connecting them with job training programs to increase their potential employment options.

CHWs also play a large role in helping individuals navigate barriers related to the health care system itself. Upon a client's entry into the program, CHWs conduct an assessment to ascertain the level of support that the client will need in completing tasks like setting up medical appointments and picking up and remembering to take prescribed medications. The eventual goal is for clients to be able to perform these tasks on their own. However, especially in the beginning, the CHW will often perform these tasks for or with the client (T. Evans, personal communication, January 17, 2020). Once these appointments are set up, CHWs and clinical case managers address transportation barriers by providing individuals with pre-paid bus passes and even riding the bus with them if necessary. One clinical case manager told a story of a client who, because of an intellectual disability, is unable to navigate public transit on his own. "He gets lost, so unless it's a route that he's done many times, I'll usually take him…I ride the bus with him and let him take the lead, 'show me where to go,' things like that" (personal communication, December 16, 2019).

If needed, ICCH staff will also attend appointments with clients. For some clients, this is simply a matter of needing another person there to serve as moral support. Kristina Arscott related a story of one client who needed to be assessed during a mental health crisis but never would have been able to sit in the waiting area on his own. "So I went and sat with him for about three hours so that he wouldn't walk out," Arscott said, "Didn't matter what I talked about. But I was calm enough so that he was able to do what he needed to do…and he did great. He got what he needed, he came out in a much better place than he went in on. But he wouldn't have made it unless I sat there for those three hours" (personal communication, January 10, 2020). For other clients, especially those with low levels of health literacy, they need assistance communicating their needs to their doctors and understanding what the provider is saying in response. This is primarily the role of the CHW. However, if the specifics of the health situation are particularly complex, the RN may also step into this role (J. Carmeci, personal communication, December 23, 2019).

Barriers related to health literacy are also addressed through a variety of educational programming. This programming is primarily overseen by the RN, who works with clients to help them understand their health conditions, how to monitor symptoms, ways to manage their diseases, what their medications are and what they do, and red flags that indicate that they should go to the ER. Some of this education is done in group settings, especially for common conditions like diabetes. For example, ICCH provides cooking classes for clients with diabetes that focus on helping them better control their diets. However, the majority of this education is done on a one-on-one basis, as this makes it easier for the RN to address specific clients' needs and check for understanding.[15]

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becoming homeless. The SOAR program has proven successful in helping SSI/SSDI applications get approved. Nationally, only 28% of SSI/SSDI applications are approved. As of 2019, 63% of SSI/SSDI applications filled out by SOAR trained case managers were approved on average (*What is SOAR? | SOAR Works!*, n.d.).

[15] "Most of my education is done on a one-to-one basis. It's much more effective, and I'm able to…when you teach someone you ask for kind of like a teach back. I'm able to ask questions. So like 'What if this happens, then what does that mean?' and then I know if they got it or not or if I need to do it further. So that education could be anything from them coming out of the hospital with an incisional wound, and it would just be infection control and signs and

Therefore, although stakeholders and popular news media (and this project) use phrases like "housing as health care" and "a prescription for housing" to describe housing and health partnerships, the issue is far more complex and nuanced than these phrases make it seem. If policymakers hope to truly address the health issues of individuals experiencing homelessness, they must acknowledge the sheer number and complexity of the intersections between housing and health and tailor program services to address these intersections accordingly.

Coordinated

Another theme that emerged throughout stakeholder interviews was the fundamental importance of collaboration and service coordination. This is especially important, as the realms of housing and health have traditionally been relatively siloed. This has led to a fragmentation of services that can hinder progress and negatively impact clients. As Vanessa Schick describes, "if you're receiving fragmented services, everyone has their own goals and objectives for you, and those objectives sometimes can feel as though they compete with one another…it's not right to tell [clients] 'you need to do all of these things' and then have them prioritize" (personal communication, January 10, 2020). ICCH addresses this by explicitly building collaboration and coordination among different service providers into the structure of the program. They do this through four main pathways: the creation of client care teams; the utilization by the care team of a single plan of care for a given client; the physical location of care teams at the housing sites with the clients; and the facilitation of communication between members of the team through multiple avenues, including regular meetings, a shared electronic health record, and the creation of a shared clinical language.

Once an individual enters ICCH, they are connected with a care team. This team consists of a registered nurse (RN), a care coordinator (also referred to as a community health worker or CHW), and a clinical case manager. The roles of these team members often overlap. However, they each bring a unique expertise, and their responsibilities can be broadly divided into three categories. The RN addresses the clients' direct medical needs. They monitor lab results, educate clients about their conditions and medications, and make sure that clients are connected to the proper outside medical providers (including primary care providers as well as specialists). The RN also plays an invaluable role as a "translator" for other team members who may not be as well-versed in medical terminology or a clients' specific condition. The CHW also addresses clients' medical needs but from a more administrative perspective. They are the ones who schedule doctor's appointments, arrange transportation to these appointments, make sure that clients pick up and refill their prescription medications, and help clients apply for benefits (like Medicare and Medicaid). Finally, the clinical case manager addresses clients' social needs. These individuals are licensed social workers. They assist clients with things like paying their rent on time and keeping their apartment clean, mediate conversations with the housing provider, and provide therapeutic services (K. Arscott, personal communication, January 10, 2020).

In order to ensure that the care team is working toward the same goals, ICCH has the team develop a shared plan of care for each client. This plan is created when an individual enters the program and is formally updated every 6 months. Andrea Piro (RN) described the plan of care as "an ever evolving monster." Each team member starts by creating their own individual plan of care that encompasses the aspects of a client's care that are in their own realm of expertise. Then, the team comes together to complete a capstone, and this final plan of care is "born out of the marriage

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symptoms of infection on the wound…or it could be long-term kidney failure and what it looks like, which is a much bigger project" (A. Piro, personal communication, January 13, 2020).

of each one of those individual plans of care" (A. Piro, personal communication, January 13, 2019). Frances Isbell, CEO of HHH and one of the founders of the ICCH program, discussed how this process helps overcome fragmentation of services by ensuring "that everybody, including the clinic staff are working toward similar or joint goals." According to Isbell, even among other permanent supportive housing models, having a single "integrated health plan that includes both the medical plan as well as the social services" is unusual. She cites this "extreme integration" as a primary factor in ICCH's success (F. Isbell, personal communication, December 15, 2019).[16] This sentiment was shared by the direct staff members that I spoke with, all of whom mentioned the central role that the single plan of care played in helping them effectively address clients' needs.

Furthermore, these weekly plan of care meetings are also integral in facilitating general communication among team members. Although the first half of these meetings is dedicated to updating the plan of care for a single client, the second half is reserved for more general discussion of any clients under the care team's supervision. Thus, these weekly meetings provide a formal, scheduled space for team members to check-in with each other about any changes in clients' immediate needs. They also provide a space for team members to seek others' input or expertise on particularly challenging situations. Regular formal meetings are not limited to the care teams. All on-site staff in the 1115 Program convene once a month, and all HHH and SEARCH staff involved in the 1115 Program (including administrative staff) meet once a month as well (A. Piro, personal communication, January 13, 2020).

Collaboration is also facilitated by the use of shared electronic health records (EHRs). Although ICCH uses several EHRs, the most common is EPIC, which contains all health records for clients within the Harris Health System. EPIC contains clients' medical records (including test results, appointment notes, medication lists, etc.) as well as all of the care team's notetaking (both clinical medical notes as well as behavioral health and social service notes) (A. Piro, personal communication, January 13, 2020). As Frances Isbell notes, this allows on-site staff to know "what's going on in the clinic, diagnoses and medications, those kinds of things" and also "inform[s] the clinic staff what's going on with somebody's life" (F. Isbell, personal communication, December 15, 2019). Additionally, care team members can directly "CC" each other on notes that they make in EPIC. This provides another direct line of communication through which team members can alert each other of client's current needs.[17] This "closed data loop" is a critical component, allowing members of a care team to stay up-to-date and get a holistic picture of a client's condition (F. Isbell, personal communication, December 15, 2019).

In addition to these formal spaces and times, ICCH also facilitates coordination in a number of informal ways. Team members have physical offices at the housing sites, and all members of the care team are on-site 5 days a week. This close physical proximity allows for a high level of communication among the care team. When team members are not on-site, they are kept in the loop through "continuing text messages" and group chats. This ensures that "everybody knows everything that's going on" with clients in the moment and allows the team to adjust plans of care

[16] Isbell's assertion of the importance of this single plan of care is confirmed by Dr. Vanessa Schick's analysis. Dr. Schick's findings in relation to care coordination are discussed further at the end of this subsection.

[17] Andrea Piro (RN) gave an example of a client complaining to a clinical case manager about a bruised finger and the clinical case manager CC-ing her in EPIC to go provide a medical consultation (personal communication, January 13, 2020). Another clinical case manager, who preferred to remain anonymous, talked about how she serves a lot of diabetic clients. These clients will frequently come to her with their sugar numbers, asking if they are within the target range. This is outside of her "wheelhouse." However, through EPIC, she is able to forward the client's concern to the RN on-site quickly and easily (personal communication, December 16, 2019).

relatively quickly (A. Piro, personal communication, January 13, 2020). The capacity for adaptation that this continuous communication allows is especially important. As Bill Taube (a clinical case manager with ICCH) noted, "we're going to write down [a plan of care]…but in the real world it doesn't always play out that way…so how the team is going to be able to operate to with that" and adjust to the needs of the client on a day-to-day (and sometimes minute-to-minute) basis is incredibly important (personal communication, December 16, 2020).

Finally, ICCH ensures that its staff shares a common language by training all staff in the Stages of Change and the practice of Motivational interviewing. As described in the literature review, the Stages of Change approach focuses on meeting individuals where they are and helping them progress toward behavioral change. Motivational interviewing is a specific counseling approach that helps individuals progress through the stages of change. This approach will be discussed more in-depth in the "Client-Centered" sub-section. This shared training allows all members of a care team to understand and approach clients' issues from a common "clinical perspective" despite their different backgrounds and areas of expertise (F. Isbell, personal communication, December 15, 2019). This common perspective is especially important given that, as discussed in the literature review, an individuals' current stage of change will determine what interventions are most effective.[18] Thus, agreeing on, and having staff trained in, a common approach is a key component of helping team members decide on and implement a clients' plan of care. More broadly, this common training provides staff with a common language to use when discussing client issues or developing plans of care. Given that medical staff may be unfamiliar with some of the terminology used by social services or housing staff (and vice versa), this shared vocabulary is especially important. This helps ICCH overcome the siloes typically observed between the worlds of housing and health.

In sum, ICCH is structured to promote coordination and collaboration between the typically siloed worlds of housing and health, and staff cite this as being one (if not the most) essential component of the program's success. The importance of this coordination is further highlighted in the few instances in which it is absent, such as when clients see outside medical providers. Andrea Piro, RN spoke about the difficulty that arises when clients are admitted into an inpatient hospital setting. She reported that acute care providers often fail to communicate with a clients' ICCH team and that it is not uncommon for her team to not find out that a client has been discharged until three days after the fact (personal communication, January 13, 2020).[19] This disjuncture highlights the importance of the structures that ICCH has in place in ensuring continuity of care and that no client falls through the cracks.

The perceived importance of coordinated care among stakeholders is corroborated by Schick's quantitative program analysis. In her study, Schick was able to take advantage of a natural experiment by investigating two different permanent supportive housing (PSH) programs in

[18] To elaborate, Isbell gave an example of approaching a client with diabetes who needs to change their diet. "Let's say somebody is looking at changing their diet because they're diabetic. If everybody understands that this person is actually in contemplation, then giving them a hard time because they just ate a piece of cake is not going to be productive at all…then that helps inform both the client as well as anybody that's working with them, and if everybody on the team understands that…" (personal communication, December 15, 2019). Furthermore, almost all direct ICCH staff expressed similar sentiments about the importance of all staff being trained in MI and stages of change. Bill Taube described the utility of MI as "a language to be able to talk that everyone can get on the same page with" (personal communication, December 16, 2019).

[19] "Even though we handshake explain who we are, what we're doing, what our goals are…we rarely are allowed in on that conversation and often are supposed to find people at home discharged three days ago…" (A. Piro, personal communication, January 13, 2020).

Houston. Both programs connected clients to housing, medical, and social support services. However, they differed in the level of coordination within clients' care teams. ICCH's care teams were fully integrated. They met with each other regularly, operated under a single plan of care, shared a single EHR, and directed clients toward a single federally qualified health center (FQHC). In contrast, the other PSH program under investigation did not feature a single plan of care nor did it direct clients to a single FQHC. Schick found that, while both programs improved clients' HRQOL, ICCH reduced clients' PHQ-9 scores and increased their SF-36 scores (in both the physical and mental health categories) more quickly and at an overall higher rate than the comparison group (Schick et al., 2019). This indicates that the high-level of coordination among the ICCH care team is a critical component of program success, differentiating it even from other programs that provide apparently similar services.

In our conversation, Schick also drew on her personal observations of the program to reaffirm this conclusion. As part of her work, she sat in on program planning meetings, got to know program staff, and had the opportunity to interact with clients. Through these experiences, she witnessed firsthand the "excellent communication among all of those individuals" and their ability to come together "as a team" and "see where a person's at, and…based upon that person's goals, help them prioritize their health, wellness, overall social and financial well-being outcomes in order to help them meet their goals." This coordination among team members extended beyond plan of care meetings. It carried into the clinical setting, where clients' doctors were aware of and actively working toward the clients' goals, and into the housing sites themselves, where care coordinators and case managers helped clients implement doctors' recommendations on a day-to-day basis. "At every step, they were receiving integrated care with a shared plan of care," Schick noted. In this way, "the data matched what [she] was seeing in the community" (personal communication, January 10, 2020).

Client-centered

ICCH stakeholders also stressed the importance of the program being client-centered.[20] Most straightforwardly, all services and plans of care are tailored to the needs of the individual client. ("It depends" was a common response when I asked staff members about what services they provided.) This client-centered focus also arises from ICCH being based on the Housing First (HF) model. As discussed in the literature review, under an HF model, an individual does not need to make changes or achieve behavioral milestones before moving into housing, and all program services are entirely voluntary. This commitment to voluntary services and respecting client autonomy goes beyond the theoretical. Bill Taube said, "where it's evident is that there's no pressure from management" when it comes to ensuring that clients are meeting specific goals. If a client is not keeping their medical appointments or is continuing to abuse drugs and alcohol, program staff are aware and will bring it up with the individual. However, there are no accountability measures or repercussions for staff whose clients do not make the desired behavioral changes (personal communication, December 19, 2019).

Similarly, clients have full autonomy over choosing their own goals within the program. This remains true even when their goals do not match the "ideal" goals of their care team. This is especially true in the beginning. When clients first enter the program, many of them are focused on getting their immediate material needs met (such as housing and food) and less interested in the

[20] When asked about the program's strengths, Bill Taube (LCSW) quipped, "I think one of the real strengths we have is that we truly are client-based. I think everyone says they are. I don't think anyone says 'we're not client-based,' but we really are here" (personal communication, December 19, 2019).

more long-term therapeutic or medical services that ICCH provides. One clinical case manager illustrated this broader point, saying, "there's a lot of me wanting to do therapy and they're like, 'No, why would I meet with you weekly? I just need a bus pass'" (personal communication, December 19, 2019). In this way, the client becomes not just a simple recipient of services but an integral part of their own care team with full control over their lives and healing processes.

This client-centered approach does not mean that ICCH does not prioritize behavioral change. In fact, Frances Isbell and Cathy Crouch (who partnered to design the program's clinical model) cited behavioral change as one of the program's primary goals.[21] In addition, several of the metrics ICCH uses to assess itself (such as ED utilization) are reliant upon clients changing behaviors. However, rather than mandating compliance, the program relies on the transtheoretical model's stages of change (which were discussed more in-depth in the literature review) to accomplish this goal. Staff use motivational interviewing (MI) to help clients progress through the stages of change. MI is a "directed, client-centered" counseling style that focuses on resolving clients' ambivalence to change problematic behaviors by exploring how those behaviors negatively impact their lives or are interfering with their goals. Providers do not tell individuals what they "should" do. Instead, they ask a series of open-ended questions to explore what clients' reasons for change may be and then strengthen those reasons to help clients build up internal motivation (F. Isbell, personal communication, December 18, 2019).[22]

Although ICCH staff acknowledged the difficulties of this approach (especially the frustrations when clients' goals drastically differ from their own), they maintained that this focus on client agency is critical. Allowing clients to take ownership of their own process makes it much more likely that they will achieve the goals that they do set. Furthermore, allowing clients to move at their own pace fosters a level of trust between provider and client that may make them more receptive to their care team's input and open to making additional progress. Andrea Piro (RN) summed up the basic logic behind the method, explaining, "Nobody can move somebody towards a goal that doesn't exist in that person's mind already, right? And so it's imperative that they're setting their own goals, but it's also imperative we are sharing education and using MI to highlight those things that might make a goal seem more feasible or important than they might have originally thought" (personal communication, January 13, 2020). Overall, ICCH's approach is, in the words of Bill Taube (LCSW), one in which there is "great respect for clients being individuals, adults, making their own decision" (personal communication, December 19, 2019).

This respect for client's individuality and autonomy went beyond a few talking points in response to direct questions about the program's approach. It infiltrated the way staff spoke about clients throughout the interviews. When asked about program success, Tyrone Evans (CHW) said, "well, I never look at our numbers…the numbers just for some reason don't interest me…what I

[21] Isbell stated, "the staff, both in the clinic and on-site really focus on behavior change…And that behavioral change, it could go all the way from diabetes to medication adherence to substance use…the focus really is on behavioral change and what will help facilitate someone improving their QL, improving their self-efficacy, their self-sufficiency, their happiness really has to do with behavioral change" (personal communication, December 18, 2019). Similarly, Crouch spoke about SEARCH's role in the program as promoting behavioral change, saying "our role is traditional case management, but it's also not about just about referring somebody out. It's also about how do we help people make behavioral change, positive behavioral change in their lives?"

[22] MI is difficult to understand even for individuals who have been trained in the practice. To clarify the approach, Cathy Crouch of SEARCH provided the following example: "So a lot of it in my mind is about really increasing the importance for the client. Having the kinds of conversations with them where you strengthen certain things that they're saying. So like "I'm really hungry" "That sounds terrible, when was the last time you had a good meal?" And so you help build up these reasons for change and then if there are barriers to get in there you try to help problem solve or really help try to make it happen for them" (personal communication, January 17, 2020).

try to focus on is the individuals" (personal communication, January 17, 2020). When asked about the program's goals, staff went beyond ICCH's stated goals of improving health and reducing ED utilization and emphasized more human factors. Similarly, Jessica Carmeci (CHW) said the goal of the program was "just treating people with dignity and respect that's been absent in their lives for so long…giving that back to them, that means everything to me" (personal communication, December 23, 2019).[23]

Persistent Problems and Areas of Growth

Thus far, ICCH has proven to be a viable program model for addressing the health issues of chronically homeless individuals. However, now in its fifth year of operation, ICCH has had to shift its focus from building a program to a sustaining a program. This broader transition is reflected in two key problem areas that arose in my conversations with program staff and stakeholders: how to handle individuals stepping down from or "graduating" program services and how to secure a sustainable funding source.

Stepping Down

The issue of how to handle individuals stepping down from program services is a byproduct of ICCH's success. Having been in operation for five years now, an increasing number of program participants have begun to achieve levels of stability (with regard to both housing and health) that enable them to live independently. At the time of my interviews, there were six participants "in the wings to leave the program, get a housing voucher, and move into the community" (F. Isbell, personal communication, December 18, 2019). Individuals have "graduated" from program services before. In fact, those success stories were some of the ones that ICCH staff were most enthusiastic to share during my conversations with them. However, these previous graduations were all decided on an individual, case-by-case basis. Now, with positive exits becoming more common, the ICCH team is trying to move toward standardizing the process. As Isbell put it, "is there a way for [them] to look at the data and try to understand how to begin? Like at what point would we try to begin to prepare somebody for…a positive exit from the program?" (personal communication, December 18, 2019).

In addition to identifying when an individual is ready to move on, ICCH staff's descriptions of clients leaving the program highlight deficiencies in current supports for individuals who have achieved positive exits. According to interviewees, ICCH does not have any formal procedures in place to follow-up with clients after they have graduated from program services. This was not always the case. Each year, the ICCH staff set a goal for the program, and, in a previous year, the goal focused on exits. During that year, ICCH had clients sign a consent form allowing staff to follow up with them for 180 days after they left the program. However, that practice ended when the goal period expired. This does not mean that ICCH offers no exit supports to clients. Before a client leaves, the program works with them to ensure that they have a stable housing arrangement, a sustainable source of income, and a social support system. Additionally, some staff take it into their own hands go beyond these basic measures. Jessica Carmeci (CHW) compiles a resource list for clients and even goes so far as to laminate her personal business card and put it in her clients' wallets before they leave. "So that if they do slip up, they at the very least can call me, and I can point them in the right direction," she said (personal communication, December 23, 2019).

[23] Similar statements about focusing on individuals and restoring their individual dignity and autonomy were made by all staff throughout the interviews.

This lack of a formal follow-up procedure does not necessarily indicate an intentional oversight or ill-will on the part of program staff and administrators. Rather, it is a byproduct of ICCH entering a new stage of development. Bill Taube (LCSW) described this evolution as follows, "the first part was we just need to get all these clients housed, and then the next piece was 'Okay, we got them housed, now we need to help them stay housed,' and so now the next transition piece we've gotten to is 'Now that folks are staying housed, how are going to support folks in moving on?'" (personal communication, December 19, 2019). These are difficult questions to answer, especially for a program that is already strapped for resources, as discussed in the next subsection. However, determining both when an individual is ready to step down and how best to support them after they have done so will be a crucial piece in maintaining program longevity and proving to potential investors that the model is sustainable.[24]

Funding

The most pressing problem facing ICCH is maintaining sufficient funding. In fact, the problem of funding was seen as so overwhelming that it almost entirely eclipsed other areas for growth or improvement within the program during my conversations with stakeholders. As discussed in the "Background" section, ICCH was made possible through Medicaid 1115 Waiver, which funded 100% of the program's costs (F. Isbell, personal communication, December 18, 2020). Unfortunately, ICCH's waiver period ended in 2019, and the waiver was not renewed. Isbell and her team have been "trying real hard to find an alternate way to fund this vital program, and it's not been easy" (T. Foster, personal communication, December 17, 2019). They found funding to cover the program's costs of operation for the immediate future (likely the next two years).[25] However, after that, questions of where the money for the program will be coming from remain unanswered.

The expiration (and non-renewal) of the 1115 Waiver places the program in a precarious position, and concerns about future financial viability dominated my conversations with stakeholders. Many acknowledged that ICCH's integrated care model is considerably more expensive than more traditional models. However, they reaffirmed their belief in ICCH's efficacy and lamented the possibility that such an apparently effective program might be lost. Cathy Crouch, Executive Vice President of SEARCH, summarized this general sentiment, saying "if it were up to me, I would have every one of our housing programs be integrated care, but it's expensive…And, you know, grants end, and so we've been scrambling…this happens though, you can have a stellar program and it goes away because the money or the politics" (personal communication, January 17, 2020). As Dr. Vanessa Schick was quick to point out, ICCH may seem more expensive in the short-term. However, in the long-term, it actually "has potential for

[24] In the words of Andrea Piro (RN), "[Formalizing stepping down is] kind of part of our attempt at legislative changes and getting Medicaid to pay for something like this" (personal communication, January 13, 2020).

[25] The program applied for Disaster Recovery Funding (citing Hurricane Harvey's impact on homelessness in Houston). Program heads believe this funding will be received in the spring of 2020 (T. Foster, personal communication, December 17, 2019). In addition to this, funding currently comes from a variety of sources. ICCH has been able to bill Medicare and Medicaid to cover some program services. However, because many of ICCH's services are not traditionally classified as medical care, "very little of the on-site services" are covered through these programs. SEARCH has also been able to have some of their housing services covered through HUD grants, and the program has partnered with some private foundations as well. Isbell summed up this patchwork approach, saying "It's really kind of putting lots of things together to try to maintain funding." (F. Isbell, personal communication, December 18, 2019). However, gauging specifics about where funding is and will be coming from was difficult, as program staff were unable to discuss details about current and future funding in-depth due to the live nature of the situation.

cost-reductions, including reducing potential ER use." She described ICCH as having "benefits from both a humanitarian and from a fiscal perspective" and said it was a "shame when we identify a program that works in both of those ways, and then we lose it" for lack of funding or political support (personal communication, January 10, 2020).

However, although future funding sources remain uncertain, ICCH staff and stakeholders have not given up hope. For Dr. Schick, the troubles with funding are motivation for her to continue her work "to bring awareness to the program" and to use data to help policy and decision makers "[rethink] the way we can use funding to support these initiatives" so that we as a society can "better support people and meet people where they're at" (personal communication, January 10, 2020). Many care team members expressed similar sentiments. Jessica Carmeci acknowledged that "there's never a guarantee [with funding]" but maintained that "with the impact that our program has made for Harris County…I really am really optimistic and hopeful…I really hope that this 5 years turns into 50 years, I really do" (personal communication, December 23, 2019). In order for the hopes of Carmeci and her colleagues to be realized, addressing the problem of funding is a necessity. Securing a long-term funding source will be one of 1115 Program's top priorities for the foreseeable future.

Moving Beyond Houston: Considering Context and Expanding the Case

Context

In addition to the above-described program features, components of ICCH's context are particularly important to understanding program success. The first category of these contextual factors is specific to the organizations involved in ICCH, particularly Health Care for the Homeless Houston (HHH) and SEARCH. HHH and SEARCH have a long history of working together. In fact, the two agencies used to be co-located, with HHH renting out space and providing clinic services in one of SEARCH's buildings. The level of interaction between HHH and SEARCH was much more limited then than it is now.[26] SEARCH was serving thousands of clients each year, and only a small portion of those were referred to HHH. Nevertheless, SEARCH and HHH staff did reach out to each other to consult on clients when needed, and HHH would occasionally accompany SEARCH on their street outreach services. This history of partnership made it much easier for the two organizations to collaborate once the 1115 Program began (C. Crouch, personal communication, January 17, 2020).

The two individuals leading these organizations, Frances Isbell (CEO of HHH) and Cathy Crouch (Executive Vice President of SEARCH) also have a long history of working together, dating back to HHH's founding in 1999 (C. Crouch, personal communication, January 17, 2020). Dr. Vanessa Schick (who conducts data analyses for ICCH) believes this history of "excellent collaboration" at the leadership level is incredibly important to the program's success. "You're bringing together two teams that typically don't work together, which are clinical case managers and health care providers," Schick noted, "and, at that leadership level, they work really well together, and so I think that transferred over to the team level." Even with this history of collaboration, it still took time (over two years) for the two organizations to really start working together efficiently and to "iron out the kinks" in the program (C. Crouch, personal communication, January 17, 2020). Thus, HHH and SEARCH's histories likely facilitated collaboration and program success. Policymakers hoping to learn from ICCH's success need to

[26] Crouch described the evolution of HHH and SEARCH's work together as moving from a "partnership" to a "true collaboration" with the Medicaid 1115 Program (personal communication, January 17, 2020).

take this contextual factor into account and should consider devoting more time and resources toward facilitating communication and collaboration between housing and health providers should they try to replicate the program's model.

The second category of contextual factors is related to the program's location in Houston. The most obvious of these relates to the program's initial funding, as the City of Houston had to file the application for the Medicaid 1115 Waiver. Without the city's support, ICCH never would have been able to get off the ground. However, the role of the City extends beyond the initial procurement of funding. As discussed in the "Background" section, Houston has a history of marked insufficiency followed by strong commitment to improvement in the realm of homeless policy. As a result of this citywide commitment to addressing homelessness, The Way Home campaign was founded in 2012. The Way Home is a partnership between over 100 local government agencies, homeless service providers, and other community stakeholders committed to ending homelessness in and around Houston. Furthermore, The Way Home and its partners are dedicated to the Housing First model (*About The Way Home | The Way Home*, n.d.). Thus, the City of Houston has long expressed a broad commitment to the issues and principles underlying ICCH (reducing homelessness through an HF approach). This commitment has resulted in the development of a robust infrastructure of homeless services in and around the city.

This infrastructure has been integral to ICCH's functioning. It has helped ICCH more easily identify eligible individuals and provided the program with a wide array of community partners that they can refer clients to for services. For example, the Houston Police Department has established a Homeless Outreach Team (also called the HOT Team). "Instead of arresting individuals that are homeless for mediocre things, they bring them to a service provider to try and get them into the system," Joseph Benson, Jr. (CHW) explained (personal communication, January 10, 2020). The HOT Team's efforts have gone a long way in helping eligible individuals get connected with programs like ICCH. The City of Houston also provided funding for a free-of-charge bus services for homeless individuals in the downtown area (K. Arscott, personal communication, January 10, 2020). Although ICCH must still provide transportation for their clients to some locations not included on the routes, this bus service helps address transportation barriers. Other services include Project ID (which helps individuals obtain government identification documents), a free bicycle rental service (another method to try to address transportation barriers), free legal aid services, and food banks, among many others (J. Benson, Jr., personal communication, January 10, 2020).

In addition, Harris County (in which Houston is located) has recently taken steps towards recognizing and beginning to address the social determinants of health as a broader community. This has been manifested in the creation of the Social Determinants of Health Coalition, which is spearheaded by the Harris County Public Health Department, the American Heart Association, and the University of Texas School of Public Health Department. The SDH Coalition brings together medical providers, hospital systems, and social service providers from around the county to discuss how these players can pool their resources to better address the SDH. This has been no small feat. Jessica Bacon, a staff member at the United Way who has been attending SDH Coalition meetings, says that the group is bringing upwards of 100 people to the table (personal communication, December 11, 2019). The SDH Coalition is not tackling the problem of homelessness directly just yet. Instead, they have chosen to focus their efforts on food insecurity. However, Bacon said that she feels the creation of the SDH Coalition points to a larger shift in

Harris County, one that puts the intersections between health and social issues at the center of the conversation (J. Bacon, personal communication, December 11, 2019).[27]

In combination, Houston and Harris County's historic commitment to addressing homelessness, the resulting homeless service infrastructure, and the recent commitment to addressing the social determinants of health create a local policy context that is conducive to a program like ICCH. These environmental factors likely contributed to the program's success and must be taken into account.

Expanding the Case: LA's Housing for Health and Chicago's Better Health through Housing

However, although they may have contributed to ICCH's success, these contextual factors do not entirely undermine the viability and replicability of ICCH's model. Similar programs in different cities around the United States have had similar success. In this section, I provide a brief overview of two of these programs in particular: Housing for Health (HFH) in Los Angeles, California and Better Health through Housing (BHH) in Chicago, Illinois.

Los Angeles' Housing for Health program was started in 2014 by LA County's Department of Health. Like ICCH, HFH was designed to target chronically homeless individuals in the county who have high health care needs and over utilize the county's emergency department services. Also like ICCH, the program takes a "housing as health care" approach, providing these high utilizers with permanent supportive housing services in an attempt to improve their health outcomes, reduce their ED utilization, and increase their housing stability. From a quantitative standpoint, HFH has proven successful in meeting these goals. After one year, 96% of participants in Los Angeles' Housing for Health program remained stably housed, and their utilization of emergency medical services dropped by 67.5% (*About The Way Home | The Way Home*, n.d.). In fact, the program has been so successful that it recently received an influx of funding through LA County that has allowed it to expand rapidly. As of December 2019, HFH was serving 10,000 clients (S. Malone, personal communication, December 2, 2019).

Chicago's Better Health Through Housing program was started in 2015 through a partnership between the University of Illinois Hospital Health Sciences System (UI Health) and Chicago's Center for Housing and Health. Like ICCH and HFH, BHH aims to address the health issues of chronically homeless individuals by providing them not only with medical care but with permanent supportive housing and wrap-around support services. Specifically, BHH targets chronically homeless individuals who frequently utilize emergency department services. Although BHH began with just one hospital partner (UI Health), it has since expanded to work with three other hospitals in the area (Swedish Covenant Hospital, Rush University Medical Center, and Northwestern Memorial Hospital) (B. Darby, personal communication, December 16, 2019).

After three years of operation, Chicago's Better Health Through Housing program has seen a 57% reduction in inpatient stays, a 67% reduction of emergency department utilization, and a 21% reduction in costs among program participants. In addition, after one year in the program, 86% of participants self-reported the program having a positive impact on their health (Chicago Center for Housing and Health, 2018). Recent preliminary analyses of 2019 data show that BHH's hospital partners continue to see significant cost and utilization decreases, with one hospital alone seeing a cost decrease for BHH patients in excess of $700,000 over the course of the year (B. Darby, personal communication, December 16, 2019). These successes have allowed for BHH to

[27] "We came together on one thing [food insecurity], but [the head of the Coalition] was very keen to say 'We're going to look at all SDH'…they've got the door open to look at everything, for sure." (J. Bacon, personal communication, December 11, 2019).

expand over the years. They have also led to the creation of a new program in Chicago, the Flexible Housing Pool. The Flexible Housing Pool has the same basic goal and operates under the same basic model as BHH. However, it is open to a larger segment of the population, including individuals who do not meet the formal definition of chronically homeless but who self-identify as homeless (A. See, personal communication, January 3, 2020).

The successes of HFH and BHH bolster the evidence from ICCH that "housing as health care" models are an effective means of addressing the health and housing challenges of chronically homeless individuals. This is further corroborated by the quantitative studies cited on the outcomes of housing and health collaborations in the literature review. Furthermore, HFH and BHH illustrate that these models are capable not only of producing results but also of securing the support and investment necessary to scale up and achieve long-term sustainability.[28]

Overall, my conversations with stakeholders at these two programs reaffirmed the general themes that emerged in my analysis of ICCH.[29] HFH and BHH both subscribe to and wholeheartedly endorse the Housing First approach. This means that all services are voluntary, individuals do not need to meet any prerequisites before being assigned to a housing unit, and clients are allowed to dictate their own goals. They also both recognize that solving this issue requires far more than simply providing individuals with a place to live. They also provide their clients with a wide-range of comprehensive services. At HFH, this takes the form of what they call intensive case management services (ICMS), which include everything from teaching clients how to pay rent on time to helping them communicate with landlords to accompanying them to doctor's appointments. BHH provides similarly comprehensive services through their integrated systems care teams.

Stakeholders at HFH and BHH also stressed the importance of establishing a shared language in order to facilitate communication between the typically siloed worlds of housing and health. At BHH, this involves a similar approach to ICCH, with a focus on housing first principles coupled with MI counseling strategies (B. Darby, personal communication, December 16, 2019). HFH also relies on housing first, stages of change, and motivational interviewing to provide a common framework for their staff. HFH also couples this shared clinical language with their more colloquial "whatever it takes" strategy.[30] As Joey Aguilar, one of HFH's Program Managers, put it this guiding organizational philosophy asks case managers to "go above and beyond with [the population]" and do "whatever it takes…to keep the client housed and health," even if this means stepping out of the traditional case manager role and "getting out of the office" to provide the intensive case management services discussed previously (personal communication, December 5, 2019).

Finally, BHH also shared an integrated care team with access to a shared data system. Each month, the medical staff at each of BHH's partner hospitals and the program's housing case

[28] The funding that enabled HFH and BHH to scale up and how ICCH may be able to learn from these models will be discussed further in the policy recommendations section.

[29] It is important to note the small sample size, as I spoke with 2 program staff at Housing for Health and 2 program staff at Better Health Through Housing. However, when combined with the qualitative data from ICCH, these individuals' perspectives lend credence to the basic themes that emerged in my conversations with ICCH staff. Nevertheless, in the future, a more in-depth comparative study could shed even more light on the issue and help define key program aspects more definitively.

[30] The "Whatever It Takes" mantra is so integral to HFH that staff are provided specific "Whatever It Takes" trainings, and Sally Malone (an HFH program manager) said that she and her colleagues joked about getting "Whatever It Takes" tattoos (J. Aguilar, personal communication, December 5, 2019; S. Malone, personal communication, December 2, 2019).

managers convene for a systems integration team meeting to go over the current status of and care plan for each client (B. Darby, personal communication, December 16, 2019). This high-level of integration between health and housing is currently lacking in LA's HFH model. Because HFH has expanded so quickly, LA's DHS is no longer able to serve as clients' direct medical provider and instead refers them out to partner agencies. As a result, they have lost the ability to track health data on clients. Instead, DHS asks their case managers to report any deterioration in a clients' health status and attend at least one primary care appointment with their client each year. However, rather than undermining the importance of care team and data integration, this absence further underscores its necessity. Sally Malone, Policy Program Manager with HFH, identified the loss of coordination (both in providing medical services and sharing medical data) as being one of HFH's biggest challenges and "get[ting] the information back to do clinical evaluations…so that we can make sure that we're achieving our outcomes" as being HFH's top priority (personal communication, December 2, 2019).

Although ICCH, HFH, and BHH have similarities, they are by no means identical. For example, ICCH provides congregate housing (with 30 clients living in each of 4 apartment complexes), while HFH provides scatter-site housing (where clients live at different apartment complexes throughout the city) and BHH provides a mix of congregate and scatter-site housing (K. Arscott, personal communication, January 10, 2020; S. Malone, personal communication, December 2, 2019; B. Darby, personal communication, December 16, 2019). BHH partners directly with hospitals to provide medical services, while ICCH utilizes HHH's own clinic unless a client has to be referred to an outside provider for specialized care (B. Darby, personal communication, December 16, 2019; F. Isbell, personal communication, December 18, 2019). Nevertheless, many of the same underlying principles seem to be present in all three programs, and the programs are seeing similar successes.

In combination, this quantitative data on HFH and BHH's outcomes combined with the qualitative interview data on key aspects of program structure suggest that ICCH is not an isolated incident or a particularity of an organizational or municipal context. Rather, it is a potentially viable model for addressing the health needs of chronically homeless individuals through a more holistic, socially conscious approach.

Policy Recommendations

When combined with the outcomes seen in Los Angeles and Chicago, ICCH's success in reducing ED utilization and improving health and housing outcomes suggests that "housing and health care" partnership models are an effective method of addressing the dual health difficulty of chronically homeless individuals. Accordingly, the latter portion of my policy recommendations explores the lessons learned from ICCH and how these can be applied to housing and health policy more broadly. I begin, however, by first addressing the persistent problems and areas of growth that arose during my conversations with ICCH stakeholders and offering recommendations toward their resolution.

Recommendations to Houston

Stepping Down and Following-Up

ICCH should institute formalized follow-up procedures for individuals who step down from program services. This would, of course, rely on the consent of the individual in question. At minimum, ICCH should return to their previous system of following up with individuals 180 after they exit the program. However, in order to increase support to clients and maximize the utility of the data collected, I propose that these follow-ups take place at 6-month intervals for several years after an individual "graduates" from the program. To allow for an individual's status pre- and post-exit to be compared, these follow-up procedures should include the same assessments that individuals complete at 6-month intervals while in the program (the PHQ-9, SF-36, and DLA-20[31]) as well as questions regarding other primary program metrics (such as ED utilization and housing stability). To assess the degree to which individuals are able to successfully transition into the broader community, these follow-ups should include questions regarding employment (or disability) status and social supports. Finally, to ensure that nothing is being left out, these follow-ups should also contain an open-ended space for individuals to voice any concerns that they have or supports they may need that are not covered by the standardized questions.

Instituting these procedures would be beneficial both to the individual client as well as to the program as a whole. A formalized follow-up procedure would allow ICCH staff to identify individuals who are struggling after leaving the program and provide them with (or refer them to) support services. Additionally, formalized follow-up procedures would allow ICCH to continue to collect outcome data (such as PHQ-9 and SF-36 scores and rates of ED utilization, housing stability, and employment) on clients after they have exited the program. This data would allow ICCH to analyze individuals' "success" after leaving the program. When paired with data from when individuals were still enrolled in ICCH, this could reveal trends between in-program metrics and post-program success. For example, it could reveal that clients who had maintained a certain PHQ-9 score for a certain length of time or that clients who exit with a certain level of social support fair better after exiting the program than clients who did not. This would in turn help ICCH staff identify indicators that an individual is ready to "graduate" from program services, and these indicators could be used to standardize the program's step down procedures.

[31] The DLA-20 is a 20-item questionnaire designed to measure an individual's ability to carry out various tasks associated with daily living in 10 areas (health practices, household stability, communication, safety, managing time, nutrition, relationships, alcohol and drug use, sexual health and behavior, and personal care and hygiene) (Jensen et al., 2018). At the time of my interviews with stakeholders, ICCH had just recently added the DLA-20 to its 6-month client assessments. As a result, it was not included in the quantitative analysis of the program referenced in this paper. However, in the future, it will be incorporated into all ICCH program analysis.

Additionally, a formalized follow-up process could help increase ICCH's appeal to prospective funders. It is important to remember that ICCH serves some of society's sickest and most vulnerable individuals. Because of this, stepping down is simply not feasible for some clients, and this should not be regarded as a failure on the part of the individual or the program. Nevertheless, by providing long-term data on post-program outcomes, this process could highlight ICCH's potential to serve not merely as crisis intervention but as a means to help prepare individuals to reintegrate into the community and achieve long-term independence and stability. This can in turn help strengthen the "business case" for investing in the program.

A Potential Funding Alternative

The Medicaid 1115 Waiver was so central to ICCH's founding that its name became (and remains) synonymous with the program. However, as Frances Isbell, CEO of HHH, herself acknowledged, grants are an inherently transitory funding mechanism. In her words they "go away, as they're meant to" (personal communication, December 18, 2019). Nevertheless, ICCH's search for new funding has resulted in them relying on similarly transitory mechanisms, namely a federal disaster relief grant (T. Foster, personal communication, December 17, 2019). In order to build toward program sustainability, ICCH should aim to shift its focus (and its identity) to more stable, long-term funding mechanisms. These can be found (and even created) at the local level.

In this regard, ICCH can learn from the trajectories of Los Angeles' Housing for Health and Chicago's Better Health Through Housing programs. The statewide politics surrounding health care are very different in Texas compared to California and Illinois. Unlike Texas, California and Illinois elected to expand Medicaid under the Patient Protection and Affordable Care Act, meaning that more individuals are able to receive health care coverage through Medicaid in these states. In addition, in states that elected to take the expansion, Medicaid is also beginning to cover more non-traditional health services (including tenancy supports and case management services) (F. Isbell, personal communication, December 18, 2019). In the eyes of ICCH staff, Texas' failure to expand Medicaid, and thus the limited opportunities for ICCH to receive state and federal funding compared to programs in other states, is a fundamentally limiting factor in obtaining a sustainable funding source.

However, despite this perception, the growth of HFH and BHH was primarily enabled not by state or federal money but by the investment of local dollars. Los Angeles' HFH receives a large amount of funding through a countywide tax initiative (discussed further below). Chicago's BHH receives a large amount of its funding through partnerships with local hospitals, and the Chicago Center for Housing and Health was recently awarded $1.8 million from the City of Chicago to expand the basic idea behind BHH through the creation of a flexible housing pool (*City of Chicago receives $1.8 million in new donations for Flexible Housing Pool*, 2019). This is not to say that these programs do not benefit from Medicaid expansion specifically or from congenial state policy environments generally. However, it does highlight that programs need not rely solely on state or federal support in order to continue and expand. Sustainable funding sources for "housing as health care" programs have been and can be found at the local level.

In particular, LA's funding strategy could be a viable model for ICCH.[32] In March of 2017, LA county approved Measure H, a ballot measure which instituted a ¼ cent sales tax. The revenues

[32] There are many potential strategies for funding "housing as health care" programs that do not rely on Medicaid Waivers. For example, programs could partner with a Managed Care Organization (MCO) to cover non-traditional health care costs. Alternatively, they could follow the model of Chicago's BHH program, which partners directly with hospitals and has them pay $1,000 per client per month to cover case management services. However, I focus on LA's

of this tax are broadly dedicated to funding homeless initiatives in the county. As a result of their promising outcomes after their first several years of operation, Housing for Health has received an immense amount of this new county funding. It was this injection of local dollars that enabled HFH to scale up from having 5 employees when the program started in 2014 to over 100 as of December 2019. Along with this increase in staff, HFH has been able to expand their services to over 10,000 individuals in the county (S. Malone, personal communication, December 2, 2019).

Furthermore, using local dollars allows HFH more flexibility in its services. Measure H funds are public dollars, so HFH must still meet certain outcome metrics designated by the county in order to continue receiving funding. However, these criteria are much less stringent than the stipulations that Medicaid or HUD attach to their funding. This flexibility allows for an approach that is more tailored to locally identified needs and solutions. For example, Measure H dollars can be used to help pay individuals' rents, which is forbidden by Medicaid, and to serve clients who do not meet HUD's definition of "chronically homeless" (S. Malone, personal communication, December 2, 2019). HFH's model is not without its faults. Scaling up so much so quickly has brought challenges of its own, including difficulties hiring sufficient program staff and losing the ability to track individual health data. Nevertheless, HFH illustrates how "housing as health care" partnerships can achieve a measure of financial sustainability through local support.

ICCH should consider partnering with the City of Houston to pass an initiative similar to Measure H. Although the ballot measure process (which involves citizens themselves directly placing an initiative up for a vote) is specific to California, Houston city government officials can propose a citywide sales tax increase specifically marketed as funding homeless services. The revenues of this tax can then be directed toward an array of homeless services within the City of Houston, with a portion of the revenues specifically going toward funding ICCH. This specific recommendation depends on the willingness of the City to propose and the citizens of Houston to approve such a tax increase. However, given Houston's history of ambitious goals and aggressive strategies regarding homelessness reduction, I believe such a proposal is viable within the current policy context.

In my conversations with stakeholders, all identified the City of Houston as being supportive of ICCH. However, several also spoke about the difficulties city government officials face in balancing the interests of different constituents regarding the issue of homelessness in the city. For example, there has recently been increased pressure from the community to reduce the size and visibility of homeless encampments. This has diverted some attention from investing in long-term programs like ICCH in favor of policies that will produce more immediate, visible change (E. Trytten, personal communication, December 17, 2019). However, because it would be geared not toward funding a specific program but toward funding homeless services more broadly, a Measure H-like tax increase would provide city officials with the ability to concurrently address a variety of needs and appease a variety of interests within the realm of homeless policy. Furthermore, such a tax also appeals to the self-interests of city government officials, as a portion of its revenue could be used to help them achieve their current stated goal of ending youth and family homelessness in Houston.[33]

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approach because, based on my conversations with ICCH stakeholders, it seemed most dissimilar from funding sources they have already explored and been unable to procure. Furthermore, I believe that this approach is amenable to the broader policy context of Houston, as discussed later in this section.

[33] Furthermore, the public pressure on the City of Houston to take action on more "visible" issues of homelessness, like encampments, indicates that the citizens of Houston view addressing homelessness (at least in some form) as a priority and makes it more likely that a tax measure will actually be approved by the voters if proposed.

Given ICCH's immediate financial needs, any funding sources that can be immediately procured (federal or local, short- or long-term) are crucial. However, the more regionally derived and locally administered funding from a Measure H-type source would provide the flexibility, stability, and control needed to address program needs with ingenuity and specificity. ICCH needs to shift to more secure, long-term funding mechanisms. This move would ensure program longevity as well as provide greater discretion in how dollars can be spent, allowing them to potentially provide a broader population with a wider number of services. To do so, ICCH need not rely on state or federal governments. These funding avenues can (and have been) be created at the local level. A city or county sales tax is one mechanism for doing so.

Lessons from Houston (and Beyond)

Create and Expand Housing and Health Partnerships

From both a quantitative and qualitative standpoint, ICCH appears to be successful. It has reduced ED utilization, improved HRQOL, and improved housing stability among participants. In addition, based on staff observations, ICCH appears effective in improving clients' agency, independence, and dignity. Other housing and health partnerships have seen similar outcomes, including Housing for Health in Los Angeles and Better Health Through Housing in Chicago. Based on these successes, it appears that housing and health partnerships like ICCH are not merely isolated, context-specific cases but viable program models.

In addition, because these programs have been shown to reduce individual ED utilization (the costliest form of health care), they also have great cost-saving potential. This indicates that these housing and health partnerships are beneficial not only to the individual clients. A majority of program clients have either no health insurance or government subsidized health insurance before entering the program.[34] Thus, as their health care costs are ultimately covered by the US tax payer, cost saving benefits are realized by society at large. Given this, I recommend that "housing as health care" models be adopted by other cities hoping to address the health issues of their chronically homeless populations.[35] After combining the observations of ICCH staff with my broad analysis of HFH and BHH, several elements of program structure emerged as helping to facilitate these partnerships. These elements are detailed in the following sub-sections.

Use HF and SDH as Theoretical Guides

As discussed in the literature review, traditional linear approaches to housing will exclude the large segment of the homeless population that is unwilling or unable to achieve behavioral milestones prior to entering program services. Furthermore, HF is supported by a growing body of evidence that suggests that it is effective in improving housing stability as well as in helping individuals achieve their non-housing goals. This body of literature was corroborated by my conversations with ICCH stakeholders. These stakeholders indicated that the barriers associated with living on the street made achieving behavioral change before entering housing incredibly difficult and maintained that HF principles (such as voluntary services) are vital to the program's

[34] Even after program entry, a majority of clients receive health care through Medicare or Medicaid.

[35] It is important to note that, at this time, most of the data regarding these programs' success is limited to chronically homeless populations. Chicago has recently begun expanding the model to include individuals and families who are homeless but not chronically homeless through the creation of its Flexible Housing Pool. However, this initiative is so new that it does not yet have outcome data on these individuals. Thus, for the time being, I limit my recommendation to the use of "housing as health care" models for chronically homeless populations. Further study is needed to see if similar successes are also observed among populations who have more transitory experiences of homelessness.

success. Thus, in order to maximize impact and reach as many individuals experiencing homelessness as possible, housing and health partnerships should adopt Housing First principles.

In addition, housing and health partnerships should recognize that clients' needs often extend beyond the mere provision of a place to stay and should take a comprehensive SDH approach to services. Stakeholders interviewed identified transportation services, assistance applying for federal assistance programs, support in scheduling and attending medical appointments, and education regarding medical conditions as being especially important. However, this list is not exhaustive, and exact needs will vary from community to community and client to client. In order to get a full assessment of needs, housing and health partnerships should consult directly with the homeless populations that they hope to serve. One model for doing so is HHH's consumer advisory board, known as the CHANGE Committee. The CHANGE Committee is made up of individuals who currently are experiencing or have previously experienced homelessness. It provides guidance to HHH's Executive Board on the needs of and barriers faced by homeless individuals in the city. In addition, members of the committee serve as voting members of HHH's Board of Directors, providing them with an integral role in the organization's decision-making process. This insight of individuals with direct lived experience of homelessness has proven invaluable in ensuring that HHH's programing (including ICCH) is truly meeting the needs of the homeless community (J. Benson, Jr., personal communication, January 10, 2020).

Integrate Care Teams and Plans of Care

In order to overcome the silos typically observed between the worlds of housing and health, "housing as health care" models should integrate medical, behavioral health, and social service providers into a single care team. This creates a formal structure that streamlines coordination between these players and minimizes bureaucratic red tape. To ensure that these individuals are not merely a team in name alone but actually have the opportunity to collaborate and pool resources, housing and health partnerships should include regular care team meetings (similar to ICCH's plan of care meetings and BHH's system integration meetings). Furthermore, to ensure that all team members are working toward the same goals for a given client, I recommend that partnerships adopt ICCH's single plan of care strategy (as described previously). It appears to be particularly effective, producing larger HRQOL improvements than a similar PSH model without a single plan of care (Schick et al., 2019).

Adopt a Common Language

Simply bringing housing and health stakeholders together into a single care team is not enough. As mentioned by stakeholders at all of the programs interviewed for this study, providers from the worlds of medical and social services have different backgrounds and often speak different languages. In order to facilitate collaboration among care teams, housing and health partnerships should adopt and train staff in a common language. This includes a common clinical language (for example, all of the "housing as health care" models consulted in this project trained staff in the psychological theory of stages of change and the counseling strategy of Motivational Interviewing). However, it can also include adopting a broader, more colloquial mission statement. For example, HFH has distilled the concepts behind Housing First and stages of change into their "Whatever It Takes" strategy, described previously. The benefits of these shared clinical and colloquial languages are two-fold. Most straightforwardly, they make it easier for care team members (who come from different professional worlds and thus have different professional vocabularies) to communicate effectively. Additionally, they provide all members of a care team

with a common framework and philosophy for approaching client concerns. This common understanding of client problems makes it easier for team members to agree on solutions and courses of treatment.

Facilitate Data Sharing

To the extent possible, programs should facilitate data sharing and integrate data systems. This allows for better care coordination among behavioral, medical, and social service providers. In addition, having a shared data system makes it easier to track program impacts regarding ED utilization, housing stability, and cost reductions. This data is critical, as it enables programs to make the business case to potential program investors. Sally Malone with LA County DHS cited HFH's ability to demonstrate health improvements and especially cost reductions as being integral to the program receiving increased funding through Measure H (personal communication, December 2, 2019). Similarly, Abbie See with Chicago's Center for Housing and Health affirmed the critical role that BHH's health improvement and cost reduction data played in helping bring additional investors and hospital partners onboard. This in turn allowed for the creation of the Flexible Housing Pool (personal communication, January 3, 2020).

Recognizing the theoretical importance of data integration is one thing. Achieving it is another. In fact, losing the ability to share client health data has been one of the biggest problems LA's HFH has faced since expanding. ICCH provides a potential model of how this data sharing can occur. ICCH rents space within Harris County's medical record system, EPIC. This allows ICCH to share data not only among a client's care team within the program but also with any outside medical providers they see within the Harris Health system (A. Piro, personal communication, January 13, 2020). However, the specifics regarding data sharing will depend upon the data infrastructure within a given county or health system.

Leverage Community Resources

Housing and health partnerships need not reinvent the wheel. Instead, they should take advantage of the resources and expertise of community organizations who are already doing this work. For example, the City of Houston contracted with HHH and SEARCH to administer ICCH because of these organizations' over two decades of experience working with the chronically homeless population. Once ICCH began, rather than duplicating services already provided by other organizations within Houston, HHH and SEARCH referred clients out to these organizations (such as Project ID). Similarly, LA's DHS partnered with pre-existing homeless service organizations to provide case management for HFH, and BHH in Chicago has partnered with nearly 28 supportive housing organizations to provide program services.

Shift the Policy Focus to the Local Level

Beyond these structural details, the case of ICCH also has interesting implications for how we view housing and health policy issues more broadly. Overall, ICCH (and similar programs) suggests that there is much to be gained from approaching these issues at the community level. All of the program components identified by ICCH stakeholders as being key to their success hinged on building individual relationships (whether it be among care team members or between team members and clients) and tailoring services to individual needs. Furthermore, all of the programs considered in this analysis (ICCH, HFH, and BHH) were made possible through strong local governmental support and relied on community resources to provide comprehensive services. This

indicates that, although the specific context of Houston, LA, or Chicago may not have been key to these programs' successes, the local level of operation was.

This does not mean that federal or state governments have no role to play in addressing the intersections of health and housing (or other social issues). The Medicaid 1115 Waiver that initially funded ICCH was made possible by a federal policy (the Social Security Act of 1935) and the State of Texas' decision to grant a waiver to Houston. However, the waiver allowed ICCH to use dollars flexibly and to tailor its services to the specific needs of its clients. This local flexibility is key. Federal policy can be broad enough to support innovative funding, provide general guidelines, and encourage the growth of successful local programs. These local programs are then able to develop the specific implementation and to foster the individual connections and relationships that allow them to be successful.

Accordingly, rather than attempting to scale these programs up to a national level,[36] I recommend that policymakers at all levels instead focus on investing in and enabling more locally-based initiatives. By shifting our frame of analysis to the local level, we can leverage the lessons of ICCH without detaching them from the more intimate, community context that has been so integral to their success. Perhaps the most important lesson to be learned from ICCH is that, when it comes to addressing housing and health, cities need not wait for large-scale action from state or federal governments (although this larger action can certainly be helpful). Change can happen at (and perhaps is even best suited to) the community level.

[36] This hesitancy to expand "housing as health care" models beyond the community context is bolstered by the experiences of HFH, which has already faced challenges (mostly regarding data sharing, as discussed previously) expanding even at the community level.

Conclusion

Health care reform is a contentious topic in current US politics. This can be seen in the 2020 Democratic Primary, a large portion of which has been devoted to the issue. Some, such as Vermont Senator Bernie Sanders and Massachusetts Senator Elizabeth Warren, advocate for a "Medicare For All" system, in which all Americans would be entitled to health insurance coverage through a single payer, government run system. Others, such as former Vice President Joe Biden and current Mayor of South Bend, Indiana Pete Buttigieg, advance a more moderate option, in which Americans have a choice to either buy-in to a public health care option or to maintain their private insurance (Kurtzleben, 2019). However, while important, these conversations have centered mostly around improving access to health care. This can only go so far. As the growing body of work on the SDH illustrates, nominal access to doctors, insurance, and health care is not enough if people do not also have the broader social and economic conditions needed to be healthy.

For chronically homeless individuals, the idea that social factors can influence health is not merely a theoretical concept. It is a reality that manifests in their daily lives and which often has tragic consequences. The health challenges that these individuals face are significant, and, even after individuals obtain nominal access to care through insurance, the intersections between housing and health are multitude and difficult to fully delineate. These range from the direct physical and psychological impacts of living on the street to barriers (such as transportation) that prevent individuals from accessing care to obstacles that prevent them from complying with medical orders even after care has been accessed (such as a lack of safe places to store medication). By failing to consider their social contexts, traditional notions of health and health policy fail chronically homeless individuals.

In the face of challenges of this magnitude and complexity, finding effective policy solutions is daunting. However, as ICCH highlights, this task is not hopeless. By addressing their health and housing needs in conjunction, ICCH's more holistic, cross-sector approach was able to address the dual health difficulty of chronically homeless individuals, measurably improving their health and housing outcomes while also decreasing their utilization of costly ED services. ICCH is by no means a perfect program. It is currently at a critical moment, one which will determine whether it can achieve longevity or will become a footnote in the SDH discussion. I acknowledge these challenges and offer recommendations to help the program improve and navigate this juncture.

Nevertheless, the case of ICCH (especially when combined with the successes of HFH and BHH) illustrates that practical progress can be made in addressing the SDH and that such progress can be beneficial to both the individual and society. However, this progress necessitated a shift in perspective. It required program stakeholders to view individuals not as mere amalgamations of biological symptoms but as part of a broader social context that affects their health and ability to be healthy. It also required them to broaden their conception of health care accordingly, expanding it to include not only traditional medical services but also housing and social support services. In order to secure the health of society's most vulnerable groups, we must broaden our understanding of health policy to accommodate this broader understanding of health. ICCH and other "housing as health care" partnerships provide a viable model through which to begin doing so.[37] By merging

[37] All of the programs under study here are relatively new (having been established within the last five years). Further research should continue to explore ICCH, BHH, and HFH's client outcomes as well as additional challenges that the programs themselves begin to face in the long-term. For example, the issue of standardizing step down measures was

health and housing policy, we can more effectively meet the needs of chronically homeless individuals and, as HHH's mission statement boldly proclaims, restore to them the "health, hope, and dignity" that they so often are denied and that they so rightfully deserve.

explored in this analysis, but additional problems may begin to appear as these programs age. More research should also track BHH and HFH's progress as they scale up. Furthermore, a more in-depth comparative analysis of "housing as health care" programs with a larger sample size could help delineate effective program mechanisms more definitively. Additional research should also focus on whether this strategy of merging health and housing services is effective for non-chronically homeless populations, as these individuals tend to have less complex health needs and thus may not see the same health benefits from these sorts of interventions.

References

About The Way Home | The Way Home. (n.d.). Retrieved February 3, 2020, from https://www.thewayhomehouston.org/about-us

Aubry, T., Ecker, J., & Jetté, J. (2014). Supported Housing as a Promising Housing First Approach for People with Severe and Persistent Mental Illness. In M. Guirguis-Younger, R. McNeil, & S. W. Hwang (Eds.), *Homelessness & Health in Canada* (pp. 155–188). University of Ottawa Press; JSTOR. www.jstor.org/stable/j.ctt184qqc6.12

Axon, R. N., Gebregziabher, M., Dismuke, C. E., Hunt, K. J., Yeager, D., Ana, E. J. S., & Egede, L. E. (2016). Differential Impact of Homelessness on Glycemic Control in Veterans with Type 2 Diabetes Mellitus. *Journal of General Internal Medicine*, *31*(11), 1331–1337. https://doi.org/10.1007/s11606-016-3786-z

Baggett, T. P., O'Connell, J. J., Singer, D. E., & Rigotti, N. A. (2010). The Unmet Health Care Needs of Homeless Adults: A National Study. *American Journal of Public Health*, *100*(7), 1326–1333. https://doi.org/10.2105/AJPH.2009.180109

Barrow, S. M., Herman, D. B., Córdova, P., & Struening, E. L. (1999). Mortality among homeless shelter residents in New York City. *American Journal of Public Health*, *89*(4), 529–534. https://doi.org/10.2105/AJPH.89.4.529

Beretto, H. (2015, September 1). *The Way Home*. https://www.downtownhouston.org/news/article/way-home/

Braveman, P., & Gottlieb, L. (2014). The Social Determinants of Health: It's Time to Consider the Causes of the Causes. *Public Health Reports*, *129*(Suppl 2), 19–31.

City of Chicago receives $1.8 million in new donations for Flexible Housing Pool. (2019, August 26). https://www.aidschicago.org/page/news/all-news/city-of-chicago-receives-18-million-in-new-donations-for-flexible-housing-pool

Closing the gap in a generation: Health equity through action on the social determinants. Final Report of the Commission on Social Determinants of Health. (2008). World Health Organization. https://www.who.int/social_determinants/final_report/csdh_finalreport_2008.pdf

Dirmyer, V. F. (2016). The Frequent Fliers of New Mexico: Hospital Readmissions among the Homeless Population. *Social Work in Public Health*, *31*(4), 288–298. https://doi.org/10.1080/19371918.2015.1101036

Donkin, A., Goldblatt, P., Allen, J., Nathanson, V., & Marmot, M. (2018). Global action on the social determinants of health. *BMJ Global Health*, *3*(Suppl 1). https://doi.org/10.1136/bmjgh-2017-000603

Doran, K., Ragins, K., Iacomacci, A., Cunningham, A., Jubanyik, K., & Jenq, G. (2013). The Revolving Hospital Door: Hospital Readmissions Among Patients Who Are Homeless. *Medical Care*, *51*(9), 767–773. https://doi.org/10.1097/MLR.0b013e31829fafbb

Elstad, J. I. (1998). The Psycho-social Perspective on Social Inequalities in Health. *Sociology of Health & Illness*, *20*(5), 598–618. https://doi.org/10.1111/1467-9566.00121

Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science (New York, N.Y.)*, *196*(4286), 129–136. https://doi.org/10.1126/science.847460

Fact Sheet: Housing First. (2016). National Alliance to End Homelessness. http://endhomelessness.org/wp-content/uploads/2016/04/housing-first-fact-sheet.pdf

Farre, A., & Rapley, T. (2017). The New Old (and Old New) Medical Model: Four Decades Navigating the Biomedical and Psychosocial Understandings of Health and Illness. *Healthcare*, *5*(4). https://doi.org/10.3390/healthcare5040088

Feldman, B. J., Calogero, C. G., Elsayed, K. S., Abbasi, O. Z., Enyart, J., Friel, T. J., Abunamous, Y. H., Dusza, S. W., & Greenberg, M. R. (2017). Prevalence of Homelessness in the Emergency Department Setting. *Western Journal of Emergency Medicine*, *18*(3), 366–372. https://doi.org/10.5811/westjem.2017.1.33054

Foscarinis, M. (2008). The Evolution of Homelessness: Trends and Future Directions. In *Homelessness in America* (pp. 113–132). Praeger Publishers.

Fraser, J., & Morris, M. (2014, April 3). *Parker says city has cut downtown homeless numbers in half*. HoustonChronicle.Com. https://www.houstonchronicle.com/news/politics/houston/article/Parker-says-city-has-cut-downtown-homeless-5372168.php

Fuller, J. (2017). The new medical model: A renewed challenge for biomedicine. *CMAJ : Canadian Medical Association Journal*, *189*(17), E640–E641. https://doi.org/10.1503/cmaj.160627

Garnham, J. P. (2019, July 3). *Why homelessness is going down in Houston but up in Dallas*. The Kinder Institute for Urban Research. https://kinder.rice.edu/urbanedge/2019/07/03/why-homelessness-going-down-houston-dallas

Geronimus, A. T. (1992). The weathering hypothesis and the health of African-American women and infants: Evidence and speculations. *Ethnicity & Disease*, *2*(3), 207–221.

Glanz, K., Rimer, B. K., & Viswanath, K. (2015). Chapter 7: The Transtheoretical Model and Stages of Change. In *Health Behavior: Theory, Research, and Practice* (p. 127). John Wiley & Sons.

Goodwin, K. (2017). *Understanding Medicaid Section 1115 Waivers: A Primer for State Legislators*. https://www.ncsl.org/Portals/1/Documents/Health/Medicaid_Waivers_State_31797.pdf

Hibbs, J. R., Benner, L., Klugman, L., Spencer, R., Macchia, I., Mellinger, A., & Fife, D. K. (1994). Mortality in a cohort of homeless adults in Philadelphia. *The New England Journal of Medicine*, *331*(5), 304–309. https://doi.org/10.1056/NEJM199408043310506

Housing and Homelessness as a Public Health Issue. (n.d.). Retrieved October 19, 2019, from https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2018/01/18/housing-and-homelessness-as-a-public-health-issue

Houston Ends Veteran Homelessness. (n.d.). Retrieved January 22, 2020, from https://www.huduser.gov/portal/pdredge/pdr-edge-inpractice-121415.html

Hunter, S. B., Harvey, M., Briscombe, B., & Cefalu, M. (2017). *Evaluation of Housing for Health Permanent Supportive Housing Program:* [Product Page]. https://www.rand.org/pubs/research_reports/RR1694.html

Hwang, S. W., Kirst, M. J., Chiu, S., Tolomiczenko, G., Kiss, A., Cowan, L., & Levinson, W. (2009). Multidimensional Social Support and the Health of Homeless Individuals. *Journal of Urban Health*, *86*(5), 791–803. https://doi.org/10.1007/s11524-009-9388-x

Ibeneme, S., Eni, G., Ezuma, A., & Fortwengel, G. (2017). Roads to Health in Developing Countries: Understanding the Intersection of Culture and Healing. *Current Therapeutic Research, Clinical and Experimental*, *86*, 13–18. https://doi.org/10.1016/j.curtheres.2017.03.001

Jensen, A., May, R., & Rapa, S. (2018). *Using the DLA-20 For Better Outcomes*. National Council for Behavioral Health. https://static1.squarespace.com/static/59c005cd8a02c7dae8cd5e80/t/5ae34c73562fa7a5febfb703/1524845687429/NATCON+18+PowerPoint-Using+the+DLA-20+for+Better+Outcomes.pdf

Keene, D. E., Henry, M., Gormley, C., & Ndumele, C. (2018). "Then I Found Housing and Everything Changed": Transitions to Rent-Assisted Housing and Diabetes Self-Management. *Cityscape (Washington, D.C.)*, *20*(2), 107–118. https://doi.org/10.2307/26472170

Kurtzleben, D. (2019, September 10). *Health Care: See Where The 2020 Democratic Candidates Stand*. NPR.Org. https://www.npr.org/2019/09/10/758172208/health-care-see-where-the-2020-democratic-candidates-stand

Kushel, M. B., Vittinghoff, E., & Haas, J. S. (2001). Factors associated with the health care utilization of homeless persons. *JAMA*, *285*(2), 200–206. https://doi.org/10.1001/jama.285.2.200

Lam, C. N., Arora, S., & Menchine, M. (2016). Increased 30-Day Emergency Department Revisits Among Homeless Patients with Mental Health Conditions. *Western Journal of Emergency Medicine*, *17*(5), 607–612. https://doi.org/10.5811/westjem.2016.6.30690

Lin, W.-C., Bharel, M., Zhang, J., O'Connell, E., & Clark, R. E. (2015). Frequent Emergency Department Visits and Hospitalizations Among Homeless People With Medicaid: Implications for Medicaid Expansion. *American Journal of Public Health*, *105*(Suppl 5), S716–S722. https://doi.org/10.2105/AJPH.2015.302693

Link, B. G., & Phelan, J. (1995). Social Conditions As Fundamental Causes of Disease. *Journal of Health and Social Behavior*, 80–94. JSTOR. https://doi.org/10.2307/2626958

Link, B. G., & Phelan, J. C. (2002). McKeown and the Idea That Social Conditions Are Fundamental Causes of Disease. *American Journal of Public Health*, *92*(5), 730–732.

Luttik, M. L., Jaarsma, T., Moser, D., Sanderman, R., & van Veldhuisen, D. J. (2005). The Importance and Impact of Social Support on Outcomes in Patients With Heart Failure: An Overview of the Literature. *Journal of Cardiovascular Nursing*, *20*(3), 162.

Marmot, M. (2007). Achieving health equity: From root causes to fair outcomes. *The Lancet*, *370*(9593), 1153–1163. https://doi.org/10.1016/S0140-6736(07)61385-3

Martinez, T. E., & Burt, M. R. (2006). Impact of permanent supportive housing on the use of acute care health services by homeless adults. *Psychiatric Services (Washington, D.C.)*, *57*(7), 992–999. https://doi.org/10.1176/ps.2006.57.7.992

Medicaid: A Small Share of Enrollees Consistently Accounted for a Large Share of Expenditures (p. 7). (2015). United States Government Accountability Office. https://www.gao.gov/assets/680/670112.pdf

National Academies of Sciences, E., Division, H. and M., Practice, B. on P. H. and P. H., Affairs, P. and G., Program, S. and T. for S., & Individuals, C. on an E. of P. S. H. P. for H. (2018). *Evidence of Effect of Permanent Supportive Housing on Health*. National Academies Press (US). https://www.ncbi.nlm.nih.gov/books/NBK519591/

Nevius, C. (2015, June 16). *Houston made a dent in homelessness. Why can't S.F.?* SFChronicle.Com. https://www.sfchronicle.com/bayarea/nevius/article/Houston-made-a-dent-in-homelessness-Why-can-t-6328825.php

Norcross, J. C., Krebs, P. M., & Prochaska, J. O. (2011). Stages of change. *Journal of Clinical Psychology*, *67*(2), 143–154. https://doi.org/10.1002/jclp.20758

O'Connell, J. (2005). *Premature Mortality in Homeless Populations: A Review of the Literature*. National Health Care for the Homeless Council. https://pdfs.semanticscholar.org/7ffe/06c2a73bede5bbc4b3aaf5b3782f61b779aa.pdf?_ga=2.120996353.886250170.1580764678-1384677932.1579556834

Padgett, D. K., Stanhope, V., Henwood, B. F., & Stefancic, A. (2011). Substance use outcomes among homeless clients with serious mental illness: Comparing Housing First with Treatment First programs. *Community Mental Health Journal*, *47*(2), 227–232. https://doi.org/10.1007/s10597-009-9283-7

Pearson, C., Locke, G., Montgomery, A. E., & Buron, L. (2007). *The Applicability of Housing First Models to Homeless Persons with Serious Mental Illness*. U.S. Department of Housing and Urban Development Office of Policy Development and Research.

Perl, Li., & Bagalman, E. (2015). *Chronic Homelessness: Background, Research, and Outcomes*. Congressional Research Service. https://fas.org/sgp/crs/misc/R44302.pdf

Perlman, J., & Parvensky, J. (2006). *Denver Housing First Collaborative: Cost Benefit Analysis and Program Outcomes Report*. Colorado Coalition for the Homeless. https://shnny.org/uploads/Supportive_Housing_in_Denver.pdf

Phelan, J. C., Link, B. G., Diez-Roux, A., Kawachi, I., & Levin, B. (2004). "Fundamental Causes" of Social Inequalities in Mortality: A Test of the Theory. *Journal of Health and Social Behavior*, *45*(3), 265–285. https://doi.org/10.1177/002214650404500303

Prochaska, J. O., & Velicer, W. F. (1997). The transtheoretical model of health behavior change. *American Journal of Health Promotion: AJHP*, *12*(1), 38–48. https://doi.org/10.4278/0890-1171-12.1.38

Reblin, M., & Uchino, B. N. (2008). Social and Emotional Support and its Implication for Health. *Current Opinion in Psychiatry*, *21*(2), 201–205. https://doi.org/10.1097/YCO.0b013e3282f3ad89

Rog, D. J., Marshall, T., Dougherty, R. H., George, P., Daniels, A. S., Ghose, S. S., & Delphin-Rittmon, M. E. (2014). Permanent Supportive Housing: Assessing the Evidence. *Psychiatric Services*, *65*(3), 287–294. https://doi.org/10.1176/appi.ps.201300261

Rosendale, N., Guterman, E. L., Betjemann, J. P., Josephson, S. A., & Douglas, V. C. (2019). Hospital admission and readmission among homeless patients with neurologic disease. *Neurology*, *92*(24), e2822–e2831. https://doi.org/10.1212/WNL.0000000000007645

Saab, D., Nisenbaum, R., Dhalla, I., & Hwang, S. W. (2016). Hospital Readmissions in a Community-based Sample of Homeless Adults: A Matched-cohort Study. *Journal of General Internal Medicine*, *31*(9), 1011–1018. https://doi.org/10.1007/s11606-016-3680-8

Sadigh, M. R. (2013). Development of the Biopsychosocial Model of Medicine. *AMA Journal of Ethics*, *15*(4), 362–366. https://doi.org/10.1001/virtualmentor.2013.15.4.mhst2-1304.

Salhi, B. A., White, M. H., Pitts, S. R., & Wright, D. W. (2018). Homelessness and Emergency Medicine: A Review of the Literature. *Academic Emergency Medicine: Official Journal of the Society for Academic Emergency Medicine*, *25*(5), 577–593. https://doi.org/10.1111/acem.13358

Schick, V., Wiginton, L., Crouch, C., Haider, A., & Isbell, F. (2019). Integrated Service Delivery and Health-Related Quality of Life of Individuals in Permanent Supportive Housing Who Were Formerly Chronically Homeless. *American Journal of Public Health*, *109*(2), 313–319. https://doi.org/10.2105/AJPH.2018.304817

Singh, G. K., Daus, G. P., Allender, M., Ramey, C. T., Martin, E. K., Perry, C., Reyes, A. A. D. L., & Vedamuthu, I. P. (2017). Social Determinants of Health in the United States: Addressing Major Health Inequality Trends for the Nation, 1935-2016. *International Journal of MCH and AIDS*, *6*(2), 139–164. https://doi.org/10.21106/ijma.236

Smith, I. Z., Bentley-Edwards, K. L., El-Amin, S., & Darity, W. (2018). *Fighting at Birth: Eradicating the Black-White Infant Mortality Gap*. 17.

Stafford, A., & Wood, L. (2017). Tackling Health Disparities for People Who Are Homeless? Start with Social Determinants. *International Journal of Environmental Research and Public Health*, *14*(12). https://doi.org/10.3390/ijerph14121535

Tsai, J., Doran, K. M., & Rosenheck, R. A. (2013). When Health Insurance Is Not a Factor: National Comparison of Homeless and Nonhomeless US Veterans Who Use Veterans Affairs Emergency Departments. *American Journal of Public Health*, *103*(S2), S225–S231. https://doi.org/10.2105/AJPH.2013.301307

Tsemberis, S. (2011). *Housing First: The Pathways Model to End Homelessness for People with Mental Illness and Addiction Manual*. *5*(2), 7.

Wade, D. T., & Halligan, P. W. (2017). The biopsychosocial model of illness: A model whose time has come. *Clinical Rehabilitation*, *31*(8), 995–1004. https://doi.org/10.1177/0269215517709890

What is SOAR? | SOAR Works! (n.d.). Retrieved January 26, 2020, from https://soarworks.prainc.com/content/what-soar

Williams, J. C. (2017). *The Politics of Homelessness in the United States*. https://doi.org/10.1093/oxfordhb/9780199935307.013.153

Appendix A

Sample Interview Questions: ICCH and other "Housing as Health Care" Program Staff

1. What is your current role with [PROGRAM]? How are you connected to the program? How long have you been working with the program?
2. Did you work with homeless populations in other capacities before? How did that compare to the work you do now?
3. Are there any barriers that you have noticed that homeless individuals face in regards to health care that their housed peers do not?
4. Based on your observations, how has participation in the program impacted your clients?
5. What aspects of [PROGRAM] do you think contribute to its impact on clients?
6. What have been the biggest challenges for the program in general?
7. What are the biggest challenges you face in your day-to-day job? How does the program support you in dealing with those challenges?
8. How would you define the goal of the program? Do you think it has been effective in achieving that goal?
9. Is there anything you want me to know about the program or your work that you think I left out?

Sample Interview Questions: Housing and Health Stakeholders in Houston Not Directly Affiliated with ICCH

1. What is your current role with [organization]?
2. Can you describe your experiences working with homeless individuals?
3. In your experience, does housing impact health status (and vice versa)? If so, how?
4. Are there any barriers that you have noticed that homeless individuals face in regards to health care that their housed peers do not?
5. If you have noticed barriers, what solutions have you found to be helpful in remedying those barriers?
6. What has been your experience working with the homeless system in Houston?
7. Is there anything you would like to add?