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HEALTHCARE AND HOMELESSNESS: How can we better service the health needs of homeless individuals? --A Case Study of the City of Worcester, MA--

KALI ADAMS

MAY 2017

A MASTER'S RESEARCH PAPER

Submitted to the faculty of Clark University, Worcester, Massachusetts, in partial fulfillment of the requirements for the degree of Master of Arts in the department of International Development, Community and Environment (IDCE)

And accepted on the recommendation of

Ramon Borges-Mendez, Chief Instructor

ABSTRACT

HOSPITALS AND HOMELESSNESS: How can we improve hospital treatment and discharge of homeless patients? --A Case Study of the City of Worcester--

KALI ADAMS

Health care for the homeless is a major problem in American communities. Understanding the gaps, barriers and limitations in this system is imperative to providing homeless populations appropriate care. This research aims to understand the gaps in the homeless system of Worcester, Massachusetts through interviews with hospital staff and employees of agencies working with the homeless population. Analysis revealed an extremely divided system between provision of health care and provision of social services to Worcester's homeless population. Across these two systems there was limited to no collaboration, communication and understanding. In order to provide more adequate care to homeless individuals, the author outlines solutions in the areas of education, collaboration, infrastructure, and public policy. Issues experienced by the city of Worcester are similar to those experienced in other American cities and this research can help guide other communities also looking to improve the intersection of health care and homelessness.

Ramon Borges-Mendez, Ph.D. Chief Instructor

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ACRONYMS & ABBREVIATIONS

BHCHP: Boston Health Care for the Homeless Program

CHL/HOAP Community Health Link/Homeless Outreach and Assistance Program

CIT Crisis Intervention Team

CMHA Central Massachusetts Housing Alliance

CoC Continuums of Care

DV Domestic Violence

ED Emergency Department

EMH Emergency Mental Health

GWHC Greater Worcester Housing Connection

HCH: Health Care for the Homeless

HIPAA Health Insurance Portability and Accountability Act of 1996

HUD U.S. Department of Housing and Urban Development

NHCHC: National Health Care for the Homeless Council

PCP Primary Care Physician

PIT Point in Time

SVH Saint Vincent Hospital

SMOC South Middlesex Opportunity Council

USICH United States Interagency Council on Homelessness

VA U.S. Department of Veterans Affairs

I. INTRODUCTION

The ignorant depiction of the homeless as hobos, bums and vagabonds is an inaccurate representation of homelessness. Modern homelessness is the single mother struggling to feed her two young children after fleeing domestic violence, the troublesome teen kicked out by his own family, the minimum wage worker living paycheck to paycheck, and the veteran living with PTSD, unable to assimilate back into society. Most homeless individuals have simply been thrown one too many of life's curveballs.

When an individual loses the security of their own home, they lose more than just the roof over their head. Most of us are immune to an array of issues because of our housing, but when experiencing homelessness, you become more vulnerable to issues such as hunger, weather, violence, substance abuse, and illness. One of the biggest issues facing local, state, and federal governments as well as local social service agencies at this time is the issue of homelessness and health care.

Needs of homeless individuals in terms of health are complex and traditional healthcare models do not work for homeless individuals and families who are more worried about a warm bed and whatever they can scavenge up for a meal. Homeless individuals have had limited to no appropriate care, likely for long periods of time. Exposure to the elements and poor shelter conditions mean that existing health conditions are exacerbated, new chronic conditions arise, and disease takes its toll. Homeless are more likely to be exposed to disease than the general population and less able to fight it off. Homeless individuals are three times more likely to die than the general population in every age group (NHCHC,

2006). In regards to exposure, homeless are typically in one of two places, the shelter or the streets. In the shelter communicable diseases like tuberculosis and influenza can endanger entire shelters where conditions only promote the spread of respiratory illnesses. On the streets, certain hazards exist that are not found elsewhere such as hypothermia, frostbite and personal safety. In conjunction with these poor living conditions, homeless individuals have minimal access to healthcare resources to treat these illnesses, and as a result have higher mortality rates. Homeless individuals are only expected to live about 50 years, about how long an American would expect to live at the beginning of the 20th century. The general population has a life expectancy of about 78 years, more than one and a half times longer than that of homeless individuals (NHCHC, 2006).

While we know that poor health care is effecting our homeless populations, we don't know how, and we don't have the resources readily available to fix it. The purpose of this paper is to identify the strengths and weaknesses of the current system at the intersection of health care and homelessness in Worcester, Massachusetts and to identify ways in which we can improve that intersection for Worcester's homeless population. Research has been done in collaboration with the City of Worcester Department of Health and Human Services. In the short-term, results will help to improve collaborative efforts between agencies in order to better service the homeless population. In the long-term, results will help prevent premature mortality among homeless individuals and reduce the high costs to the public for emergency services.

The questions that this research will address are as follows: What are the strengths and assets of Worcester's homeless system? What are the gaps and barriers Worcester's homeless population are experiencing in accessing health care? How can we address these factors to make the system more effective? Across the United States, what are some of the best practices being used and are they feasible for Worcester and other gateway cities?

In order to answer these questions, a mixed-methods approach was taken that used both qualitative and quantitative data. Qualitative data included interviews with key stakeholders, meetings with hospital and social service staff, and social science literature review. Quantitative data on homelessness in Worcester was acquired in order to gain a greater understanding of the homeless situation in Worcester and across the nation. Data analysis showed where our gaps in the services are and information gathered from interviews and social science literature guided further research into best practices in addressing those gaps.

The paper is divided into six sections. The Literature Review will present existing social science literature that will help further frame and understand the subject. The Methods Statement will go in depth of the approach the author took in order to answer the research questions. The Local Context and Background section will frame the issue in the context of Worcester and help the reader to understand the structure of the homelessness system in Worcester. The Finding section will discuss findings from the interviews of key stakeholders. The Analysis section will present the authors analysis of the interviews and how the results relates to the system as a whole. The Solutions will discuss short-term and

long-term ways in which we can address the gaps in services experienced by Worcester's homeless population.

II. LITERATURE REVIEW

An extensive review of social science literature helps us to understand how research has shown the gaps in services elsewhere and how communities have been able to address those gaps. The following review of literature presents studies that have addressed issues such as navigating and understanding the homeless system, transitions from hospitals to shelters, hospital staff experiences with homeless patients, communication difficulties, and frequent Emergency Department visitors. In order to understand the factors effecting homeless individuals from accessing and receiving adequate and appropriate health care, researchers spoke directly with the homeless, hospital staff, and stakeholders. Through their research, we can begin to understand the complex issues of homelessness and housing from all populations involved, a scale which the research for this project was unable to match but should be pursued in further research.

Many studies found that the issues were not only navigating the healthcare system, but even in understanding and having knowledge about it (Zucchero et al. 2016; Manchester 2016). Issues such as education, inability to access medical records, and lack of communication between agencies emerged as topics that needed to be improved (Zucchero et. al., 2016). Other, more quantitative studies found the gap in services after hospital discharge. With inadequate discharge procedures, homeless patients end up at the shelter or on the streets and unable to properly take care of themselves they will likely end up back in the hospitals with worsened conditions (Greyson et. al., 2012). Recommendations from these studies include requiring assessment of housing status by hospital staff, the arrangement of safe transportation to shelter (Greyson et. al., 2012), enhancing care coordination strategies (Lin et. al., 2015), further training for hospital staff on resources for their patients (Manchester, 2016), and improving collaboration between hospitals, shelters and other agencies (Zucchero et. al., 2016; Greyson et. al., 2012; Wilkins, 2016).

These studies were specific to the cities and systems being analyzed, yet showed how complicated and fragmented the homeless system is across the nation through their revealing of the gaps, barriers and limitations. This study assumed that many of these subjects would be similar to those in Worcester, an assumption that was supported by this qualitative. With a greater understanding of the issues elsewhere, understanding the issues in Worcester will be easier. Additionally, looking at the solutions that other communities are using to address these issues will be helpful in researching solutions for Worcester, where similar gaps were found.

III. METHODS STATEMENT

In an effort to improve homeless services, particularly health care for the homeless, I am working in partnership with the City of Worcester Department of Health and Human Services on a case study of Worcester to first recognize the gaps in services, then identify practical solutions which the city could implement. We can only begin to implement effective practice by first recognizing the strengths and weaknesses of the current system. With this project these gaps are identified and the ways in which we can improve these services are introduced. In order to understand the gaps in services a mixed-methods approach that utilizes both qualitative and quantitative data is used. This mixed-methods approach is better able to capture the multidimensional nature of the issue. Qualitative data collection methods include informational interviews with hospital and homelessness staff to get a sense of the problems facing Worcester in particular, attending meetings conducted by various agencies working to collaborate on these issues, and finally research of policies and best practices. Qualitative data frames the issue from the stakeholder's eyes, what hospitals and agencies are experiencing, as well as gaps in services. Localized quantitative data from housing agencies help us to understand the issue and provide evidence as to the necessity of this work.

3.1. Defining "homelessness"

Before tackling the issue of homelessness, it is necessary to first define what we mean by "homelessness." Even definitions among leading agencies vary, which is why we must explore how we will be using it in this paper. Homelessness, like many issues, can be understood through two lenses, a conceptual lens and an operational lens. Conceptually, what does homelessness mean and how does it relate to other issues? Operationally, how does the term homelessness get used and how to we measure it?

To assess the conceptual idea of homelessness, we must first understand the factors that contribute to homelessness as it is not just a state of being, but also the means by which an individual, family or group became homeless. The state of being homeless is only an endpoint or point in a transition in which the party in question has been subject to many forces that have contributed to their homeless state. The current state of homelessness, is only a small point in the bigger picture. What are the factors that have led to this point? For some it's because of one or many internal factors, issues of mental health, addiction, or family problems. For others it's due to an external factors such as a job loss or eviction. In reality though it's likely due to multiple contributing factors, not one single instance can be blamed for an individual ending up on the streets or in a homeless shelter, but a combination of these factors, making every case of homelessness unique. Understanding the conceptual definition of homelessness can enable policy makers and those specializing in these issues to look at homelessness in a different way. Instead of looking at a homeless individual as a statistic, we can begin to question and address the factors that have caused their homelessness. This greater understanding can lead to changes in policy that can incorporate this complex nature.

In terms of the operational definition of homelessness, it is necessary to understand how those recording our homelessness statistics are defining it. HUD defines and categorizes homelessness in four categories (HUD, 2012):

Category One- *Literally Homeless*: Individuals and families who lack a fixed, regular, and adequate nighttime residence;

Category Two- *Imminent Risk of Homelessness*: Individuals and families who will imminently lose their primary nighttime residence;

Category Three- *Homeless under other Federal Statutes*: Unaccompanied youth under 25 years of age and families with children and youth who are

defined as homeless under other federal statutes who do not otherwise qualify as homeless under this definition;

Category Four- *Fleeing/Attempting to Flee Domestic Violence (DV):* Individuals and families who are fleeing, or are attempting to flee, domestic violence, has no other residence and lack resources to obtain other permanent housing (HUD, 2012)

For a more detailed definition of the above 4 categories, as well as the recordkeeping requirements for each, see Figures 1 and 2. Unless otherwise stated, the counts included in this paper includes only Category One homelessness, literally homeless.

3.2. Units of Analysis and Variables

Units of analysis are the homeless population in the city of Worcester, Massachusetts, particularly those who utilize the healthcare services at Saint Vincent's Hospital, UMass Memorial and University campuses as well as other healthcare providers such as community clinics and urgent cares. There are many different homeless populations, including families, youth, veterans and individuals and each can require a different approach in addressing their need. For the purpose of this paper we will be focusing primarily on individual homeless populations, both chronically homeless and temporarily homeless. Family, youth and veteran homeless approaches vary individually by policy and funding, thus this distinction needs to be made. While policies and funding differ for these populations, suggestions made in this paper might still apply to these populations, but further research would need to be made to determine feasibility and effectiveness for these subpopulations.

For further information on the process of analysis, subject identification, interview process, quantitative data collection, and IRB status see Appendix A. The list of conversation starters used during interviews can be seen in Appendix B, other questions were asked dependent on where the conversation went. Interviewee reference chart can be found in Appendix C.

3.3. Limitations

While the mixed-methods approach was able to capture the multidimensional nature of the issue, there are still limitations that we were not able to overcome for the purposes of this project.

The biggest limitation for this project was the scope of the population. This research looks at only Category One homelessness. While the other three categories of homelessness are extremely important, the policies and solutions of the other three categories vary in ways that could not be included in this paper and further research will need to be done in order to adequately understand the issues that these categories of homeless are facing with health care and the means in which we can being to implement change to effect these issues.

While interviews were done with a good number of people from all different professions within the field, the research would have likely benefited from interviewing more. The range of providers who interact with homeless individuals or whose work greatly influences these services is vast. While the interviews I was able to complete spoke to a variety of these services, part of this infrastructure was lacking representation in terms of research for this paper. Perspective from policy makers, government officials, both local and state, and medical professionals who care solely for homeless peoples was missing and would have added to the breadth of knowledge gained from interviews. Further research should consider getting the perspective of these individuals.

As of now there is very little research and practice being done at the intersection of health care and homelessness, this has proved to be a limitation to the extent that had there been more of a focus on these issues in other cities, more research and substantiated best practices would have existed. We however, are addressing the issue at a time when little has been done, thus the scope of existing research and best practices is fairly small compared to what we might have hoped it would be.

A huge limitation on the policy level is how policies around homelessness change state to state. With Worcester wanting to be at the top of the homelessness services game, we were forced to look at cities primarily outside of the state, such as Baton Rouge and Baltimore. The solutions that these cities have made might not be plausible for Worcester simply because of different policies. If we are unable to find a way around the existing policy, to find a way to make it work with what exists, we might have to start working on changing the policies, which will require lots more time and effort.

Despite these limitations, one of the benefits of this mixed-methods approach is that it provides a well-rounded account of the issues local hospitals are facing in regards to their homeless patients. It is my hope that by using both qualitative and quantitative data, my argument for best practices and continued stakeholder collaboration will strengthen the arguments made in this study to affect future efforts in Worcester.

IV. LOCAL CONTEXT AND BACKGROUND

In order to better understand the current system in place for Worcester's homeless population and the ways in which it can be improve, it is first necessary to understand the city itself and the parties at play. Below is an introduction to Worcester as well as to the various agencies involved in the Worcester's homeless system that are key in its success and in the implementation of future changes.

4.1. Worcester, Massachusetts

Worcester is what is considered a "gateway city." Gateway cities are midsized urban centers that anchor the regional economy but are challenged with a variety of social and economic factors. Worcester, like many others gateway cities, is struggling to get a hold on their homelessness issue, particularly when it pertains to the homeless population and hospital care.

Any Worcester resident would probably agree with you that Worcester has an issue, like most American cities, with homelessness. During all seasons, and on practically every street corner you'll witness one or more homeless individuals moseying up the sidewalk with a sign in their hand asking for something from oncoming traffic. While it is evident through statistics that Worcester does have an issue with homelessness, the extent to which these homeless individuals deal with various health issues including substance abuse, mental health issues, and acute and chronic illness remains largely under researched. Annual Point

in Time counts (PIT) are done for both the City of Worcester and Worcester County, as facilitated by the U.S. Department of Housing and Urban Development (HUD). While this project is focused on the city of Worcester and the services offered within its boundaries, it is important to note that a majority of homeless services in the county are located within city limits. With that being said, statistics from both the city and the county are provided. For insight into the number of homeless see Figures 3, 4, 5, 6, and 7 for a break down the PIT counts. PIT counts offer very little insight to the health issues facing the homeless, and hospitals and other health services rarely collect data specific to the patient being homeless, which makes understanding the scope of the issue very difficult. The only quantitative data I was able to collect outside of the PIT counts came from the UMass Memorial University Campus Emergency Mental Health Department. This data shows that a high percentage of those seeking care or forced to seek mental health care often suffer from substance abuse. For a more detailed breakdown of homeless adults seen by UMass Memorial EMH see Figure 8. Further information on homeless health issues can be found within HUD's Homeless Management Information System (HMIS), but it's access is limited to administrators within the Continuum of Care. If this data were more readily available, researchers and providers would be able to gain a greater understanding of the issue and would be able to address it with more precision.

In looking at the current system in place for Worcester's homeless population, it is first necessary to understand a little about Worcester in general. According to the latest U.S. Census, Worcester has a population of 181,045, about a quarter of the entire population of

Worcester County (United States Census Bureau, 2016). Compared to the state statistics, Worcester often falls behind on issues such as economy, health and education. The 2015 American Community Survey can help us further understand where Worcester stands in these areas. The median household income for Worcester residents is \$45,472, more than \$20,000 less than Massachusetts median household income (United States Census Bureau, 2016). In terms of housing, more than half of the city's population is renting and the rental vacancy rate is relatively low (United States Census Bureau, 2016). At the time of the survey, 22.3% of the population were receiving Food Stamp/SNAP benefits in the past 12 months, compared to Massachusetts' 12.5% (United States Census Bureau, 2016). The percentage of families whose income in the past 12 months was below the poverty line was 17.2%, compared to Massachusetts' 8.2%, and the percentage of all peoples whose income in the past 12 months was below the poverty line was 22.4%, compared to Massachusetts' 11.6% (United States Census Bureau, 2016). A more detailed breakdown of poverty in Worcester can be seen in Figures 9 and 10. These statistics and social indicators show more than just the struggle that many Worcester residents are having with poverty, but also indicate that perhaps there is something larger, something systemic, leading to these above average rates for the city. Living in poverty puts you at greater risk for experiencing homelessness, the two issues have many overlapping systemic issues that will be addressed in more detail later in this paper. Until then, understanding the key agencies involved in the homelessness system in Worcester will help us to solve these issues.

4.2. City of Worcester, Department of Health and Human Services

The City of Worcester's role in addressing homelessness has evolved over the past decade. From 2007-2009, Worcester had the City Manager's Taskforce on Homelessness, which developed the 2007 Plan to End Homelessness. From 2009 to 2013, Worcester County Regional Networks and the Interagency Council on Housing and Homelessness were working on tackling the issue, this later merged with the Continuum of Care (CoC) in 2014 and a more organizational structure emerged.

The City of Worcester Executive Office of Economic Development, in which the position of Homeless Projects Managers works out of, has always been a player in the grant management of HUD dollars dedicated to homeless or at-risk households, but this position is strictly dedicated to financial oversight. Then in September 2015 the Department of Health and Human Services was reinstated and a dedicated position for homeless assistance was created. "The mission of the Department of Health & Human Services is to provide coordination and management of the City's critical services in the areas of Public Health, Veteran's Services, Homeless Assistance, Human Rights and Disabilities, Elder Affairs, and Youth Services, and to maximize access to City programs and services by providing information and referral, advocacy, outreach and educational programs for all Worcester residents regardless of age, race, ability, or health condition" (Worcester Department of Health and Human Services, 2017). With the reinstatement of the Health and Human Services Department, the Department was tasked with overseeing community coordination on a variety of homeless initiatives including street outreach, seasonal protocol, participation

in the Continuum of Care, homeless prevention, and rapid re-housing. In July of 2016, the Homeless Projects Manager was hired, this position does more hands on work than any previous position and has allowed the City to be on the forefront of working on tackling homelessness.

4.3. City of Worcester, Police Department

The City of Worcester Police Department is often called out to assist with homeless individuals and families. A new crisis intervention training program, funded by the Commonwealth of Massachusetts Department of Mental Health Jail Diversion Grant, was introduced to Worcester in February 2016. Officers on the Crisis Intervention Team (CIT) are trained in techniques and best practices to de-escalate interactions with individuals in crisis, particularly those with mental illnesses. The goal of the Crisis Intervention Team is to safely respond to individuals with mental illness and "co-occurring" conditions such as homelessness, drug abuse, criminality, and victimization and to divert these individuals from the criminal justice system toward appropriate care and treatment (City of Worcester, 2016).

4.4. Quality of Life Taskforce

The Quality of Life Task Force is an interdepartmental team out of the City Manager's Office, also established in September 2015. The Task Force provides rapid response to issues pertaining to the Quality of Life in Worcester, including but not limited to illegal dumping, vacant/problem properties, substance abuse outreach, collection of hypodermic needs, and homeless outreach. In terms of homeless outreach, the Quality of Life Task Force works on establishing relationships with unsheltered individuals and connecting them to community providers as well as identify and problem-solve barriers that clients are facing in accessing housing, behavioral health treatment, and access to public benefits. While the Task Force's primary goal is to get people off the streets and into housing, they also work to provide needed items such as food, blankets, clothes, toiletries, photo IDs or birth certificates, and vouchers for public transportation. The primary goal of the program is to connect these individuals to emergency shelter and/or other critical services in order to reduce the number of homeless people staying in places not meant for habitation (Calano, 2017).

4.5. Social Service Agencies who frequently provide services to the homeless

The South Middlesex Opportunity Council (SMOC) is an umbrella organization that works to "improve the quality of life of low-income and disadvantaged individuals and families by advocating for their needs and rights; providing services; educating the community; building a community of support; participating in coalitions with other advocates and searching for new resources and partnerships" (SMOC, 2017). SMOC offers affordable housing, but also runs the Triage & Assessment Center that operates as the city's largest wet shelter, with 25 beds, for homeless adults. The Triage & Assessment Center is licensed to house 25 individuals, but they host 50-120 people on any given night of the year, often dependent upon the season. The Greater Worcester Housing Connection (GWHC) is a part of SMOC and assists those currently experiencing homelessness, but also formerly homeless individuals in accessing housing and supportive services in Worcester (SMOC, 2017).

The Central Massachusetts Housing Alliance (CMHA) works with Worcester's homeless population to find long-term housing stability through education, access to tools and resources, and prevention. CMHA is also the lead organization of the Worcester County CoC, the regional entity of the CoC Program through HUD, and is responsible for coordinating the annual Point in Time Count (CMHA, 2017).

Veterans Inc. is a local organization in Worcester that works with the city's homeless veteran population. By creating new opportunities with housing, employment, and health, Veterans Inc. is working to end the high rates of homelessness among America's veterans. Veterans Inc., through the U.S. Department of Veterans Affairs (VA), is able to offer long-term, transitional and emergency housing, case management, employment and training opportunities, as well as physical, mental and emotional care (Veterans Inc., 2017).

Additional organizations that serve unaccompanied homeless individuals include The Bridge of Central Massachusetts (through rapid re-housing), Abby's House (emergency shelter for women and permanent supportive housing), LUK Inc. (unaccompanied homeless youth ages 18-24), and Community Healthlink (through permanent supportive housing).

4.6. Healthcare Agencies who frequently provide services to the homeless

UMass Memorial Medical Center is part of the UMass Memorial Health Care system, and is one of the major teaching hospitals of the University of Massachusetts Medical School located in Worcester. Worcester has two UMass Memorial locations, the Memorial Campus and the University Campus, both located in East Worcester. Each offers a top of the line Emergency Department, the University Campus also offers Emergency Mental Health (EMH) services and is a verified Level 1 Trauma Center (UMass Memorial Medical Center, 2017).

In addition to its hospitals, UMass Memorial Medical Center is the parent organization for the behavioral health arm of UMass, which is Community HealthLink (CHL). CHL has been working since 1977 to reduce the effects of mental illness, substance abuse and homelessness in Worcester. Community HealthLink has two transitional housing programs with a total of 21 beds, and also runs the Homeless Outreach and Assistance Program (HOAP). HOAP was established in 1985 when staff at Community HealthLink realized how vital primary care was for their clients. HOAP's primary care clinic now offers one of the only opportunity for homeless patients to receive primary care and a comprehensive array of services that include screenings, assessments, counseling, health care, rehabilitation and case management (UMass Memorial Community HealthLink, 2017).

Saint Vincent Hospital has served Worcester for over 125 years and is located in the heart of the city. Their fully equipped Emergency Department treats more than 60,000 patients a year (SVH, 2017).

Other healthcare agencies that frequently provide services to the homeless are Adcare, which provides alcohol and drug treatment, Spectrum Health Systems, which works with individuals impacted by addiction and/or mental health disorders, and the Family Health Center of Worcester, which provides access to primary healthcare and social services, regardless of patients' ability to pay.

4.7. Worcester's Current Homeless System Diagram

The following diagram shows the current infrastructure of Worcester's homelessness system and the relationship between various service sectors.

SOCIAL SERVICES/ HEALTH SERVICES HOUSING UMass Memorial Medical Center SMOC/Triage Center (Memorial and University GWHC Campuses) CMHA Saint Vincent Hospital Veterans Inc. Adcare The Bridge of Central CHL/ Spectrum Health Systems Massachusetts HOAP Family Health Center of Worcester Abby's House LUK Inc. OTHER SERVICES City of Worcester DHHS City of Worcester Police Department Crisis Intervention Team (CIT) Quality of Life Taskforce

WORCESTER'S CURRENT HOMELESS SYSTEM

Explanation: Homeless individuals can enter the system through any of the three bubbles and either stay in one bubble, get bounced around, or get lost (depends on each circumstance). The overlap represents any overlap that might happen between the two systems. This can include communication, collaboration, or even agencies that provide both health and social services, such as CHL/HOAP. The current system chart shows limited overlap, in agencies, as well as in communication and collaboration, of the three systems. An improvement to this system will be discussed further in the Solutions section. A more detailed chart created by Katherine Calano, Homeless Projects Manager at the City of Worcester, is included in Figure 11.

4.8. Policies

The first major federal legislative response to homelessness was the McKinney-Vento Act of 1987. This Act provided funds not only for emergency shelter, transitional housing, and permanent housing, but also for job training, primary health care, mental health care, drug and alcohol treatment, education programs, and other supportive services. This legislation is reflective of the new forward thinking that was emerging at the time-- that homelessness was no longer just an issue of needing a place to stay, but was a much more complex issue that required many facets of care. It is also important to note the role of the Department of Housing and Urban Development (HUD) when addressing homelessness concerns. In the past, it was HUD's responsibly to provide housing and supportive services, but now, with the Housing First approach to homelessness, HUD is refocusing its budget predominately on rent and housing. By focusing funding primarily on housing, HUD is expecting that other local, state, and federal agencies will play a greater role in providing the supportive care to go along side of housing. The United States Interagency Council on Homelessness (USICH) recently released an updated Opening Doors, the federal strategic plan to end homelessness. In terms of hospitals and homelessness, the plan calls for a more collaborative approach and stressed the importance of permanent housing as a solution for the chronically homeless who often are repeatedly seen in hospital emergency departments (USICH, 2015). The plan included five key parts to eliminating homelessness, increase leadership, collaboration, and civic engagement, increase access to stable and affordable housing, increase economic security, improve health and stability, and retool the homeless crisis response system (USICH, 2015). While there are lots of tools and policies around homelessness, in terms of the hospital's role in homelessness, the resources are not very extensive.

Locally, the intersection between hospital care and the homeless is not a new topic, but it has been largely unaddressed until now. Only recently have efforts started addressing this facet of the homelessness issue. In a continued effort to make Worcester a healthier community, The Collation for a Healthy Greater Worcester, a partnership including UMass Memorial, the City of Worcester, Fallonhealth and others, recently released the 2016 Greater Worcester Community Health Improvement Plan (CHIP). The plan had nine priority areas. As they pertain to homelessness, they include Substance Abuse, Access to Care, and Mental Health. With listed objectives and strategies, this is a strong start to seeing our community transformed. In terms of practicality the only issue it poses is that it is general to the priority areas listed above, and does not mention addressing homelessness directly.

V. FINDINGS

Below are the top three findings from the eight interviews of 20 people done February 2017, all additional findings can be found in Appendix D and E. Interviewee reference chart can be found in Appendix B.

5.1. Health Services Side (Interviews C, E, F, H)

5.1.1. Limitations of Hospitals

Hospital staff noted several limitations hospitals have when providing care to homeless patients. Regarding admission, staff noted that many homeless patients present at the ER with no medical needs, but rather just searching for something to eat and a place to sleep. While provision of food and shelter is necessary it is not in the scope of the work hospitals do. Additionally, homeless individuals not in need of medical attention use unnecessary resources, cost the hospital and medical system excessive funds, and take beds from others who might need them more (Interviews C, E, F). Regarding discharge, whether for further care or for hospice, healthcare staff stated that a patient's lack of shelter creates an additional challenge with homeless patients who are considered a liability by nursing homes and are often refused admission to these types of services (Interviews F, H). With no place to go where care can be provided, homeless patients often end up at the shelter or on the streets where proper discharge plans cannot be maintained or can even worsen the patient's condition. Often times hospitals need to refer patients to other resources after, but when these resources don't exist or are limited, there is little that the staff can do (Interviews C, F, H). Health service providers also noted that providing care to homeless patients for chronic health issues is difficult because of the low rates of follow-up and difficulty in getting them out-patient care or treatment (Interview C).

5.1.2. Gaps in the system's infrastructure

All agreed that shelter resources within the city were limited. Not only were there not enough shelters and beds, the requirements for a homeless individual to get into those shelters was very strict (Interviews C, E, F, H). The SMOC shelter for example, requires people to have lived in Worcester for at least 24 months in order to qualify for their services. This limitation was seen as a huge barrier in terms of homeless patients simply having a place to sleep at night. On another note, affordable housing in Worcester is lacking and individuals can stay on lists for years (Interview H). Part of the systemic issue in providing adequate care to homeless patients is that homeless individuals have limited access to health care (Interviews C, H), often have no Primary Care Physician (PCP) or primary health care (Interviews C, H), and substance abuse and mental health issues often interfere with receiving and accessing good health care (Interview F). Part of primary care is dental care, inadequate dental care can often lead to severe health issues such as bacterial endocarditis (bacterial infection of the inner lining of the heart), which had it been addressed promptly, could have been prevented (Interview H).

5.1.3. Unanimous on strengths

Health service providers were able to recognize only a few strengths in the current system, but were unanimous on those strengths. Due to the resources and services that CHL/HOAP and the SMOC Triage Center on Queen Street offer, these two agencies were seen as huge assets (Interviews C, E, F, H). Interviewees also noted that efforts to network with various agencies and representatives from those agencies has proven to be a great resource in making connections and keeping up to date with changing services (Interviews F, E). These findings suggest that while the Worcester homeless system does have positive assets, those assets are limited. While health services providers recognize them as strong assets, they also recognize that these agencies resources are limited, which prevents them from being able to sufficiently handle all cases.

5.2. Social Service Side (Interviews A, B, D, G)

5.2.1. Stigma towards homeless patients

If homeless individuals do go in for treatment, they face issues of stigma when receiving care, inappropriate treatment and during discharge. Once they arrive at the hospital, as reported by social service representatives, from the beginning they are often not taken seriously because of their appearance or reputation, and staff jump straight to thinking of how they can be discharged as opposed to how they can be treated (Interviews A, B). While health providers try not to be biased, there's an underlying stigma of homeless patients, especially that all are addicts (Interviews B, D). Social service representatives acknowledge that while substance abuse amongst the homeless is an issue, it is not an issue to the extent most healthcare providers might assume (Interviews B, D). Interviews with healthcare providers confirmed that they did think that most homeless patients are dealing with substance abuse and/or mental health (Interviews C, F). One of the greatest barriers that was presented in hospital treatment of homeless individuals was the lack of personal care, a care that lacks human connection. Social service workers say that their homeless clients leave feeling neglected and have said that the care they receive is discriminating (A, B, D).

One social service worker, for example, shared that one of her clients reported being treated in a hallway bed, as opposed to a room, where all of their medical information was discussed where everyone could hear, despite rooms being available (Interview B).

5.2.2. Communication and Discharge

In terms of providing the best care, many social service workers expressed disappointment in the lack of support and communication happening between hospitals, agencies, and patients, both in treatment and discharge (Interviews A, B, D, G). In addition to the lack of communication between hospitals, agencies and homeless patients, there were many other gaps recognized with hospital discharge of homeless patients. As discussed before, many feel that at admission, staff is already thinking about discharge, which leads to early and inappropriate discharges (Interviews A, B) and oftentimes these discharges do not consider the environment patients are being discharged to. Social service representatives state that health providers are ignorant of shelter environment, which is unsuitable for those needing further attention to their health (Interviews B, D). Several examples of inappropriate discharges to shelters were made including the discharge of a person with scabies to the triage center, which resulted in EMS having to come take the patient away in full hazmat (Interview B); the discharge of a man who had just undergone surgery for a double leg amputation who was sent in an ambulance from the hospital to the triage center, where he was unable to follow through with discharge instructions and was at great risk of infection (D); and multiple discharges of those needing hospice care to the triage center, which is in no way fit for those needing hospice care, nor does it have the resources to care for someone in need of hospice care (Interview D). From the health services perspective, when they provide transport to the shelter after discharge, it is reported back by shelter staff that many of the homeless patients do not actually check into the shelter despite being dropped off there (Interviews E, F). Additionally, it was expressed that many hospital staff are not properly trained in triage center protocol, or if they are they do not follow it, which results in people getting lost in the system (Interview B).

5.2.3. Infrastructure

Regarding systems infrastructure, one of the major concerns that was recognized by both social service and healthcare workers was the idea of individuals being too sick for shelters but too healthy for hospitals and that there was nothing in between the two (Interviews A, B, D, F, H). Hospitals can only care for a person to a certain point (Interview A), and the current shelters are not suitable for most medical discharges (Interviews A, B, D), which the more social work side of the health services agreed with (Interview H). Additionally, there is a lack of shelter beds in general, as well as a lack of affordable housing (Interviews B, D, H) and supportive services that go along with the housing first model (Interview A). For many homeless individuals, whether dealing with an illness or not, the shelter is used only as a last resort, many homeless would rather live on the streets than go to the shelter (Interviews B, D), something that some in health services were witnessing as well (Interview H). From both the social service side and the health service side we heard that there is a huge issue with stigma around the issues of homelessness, substance abuse, and mental health, in particular the later, and along with that, a lack of psychiatric beds in the city (Interviews A, H) and a long wait for specialized doctors, including mental health practitioners (Interview B). A barrier in terms of finding solutions and improving the system is the lack of communication, divided systems, and the fact that we can't come to one conclusion because everyone has their own idea of how to solve it (Interview D).

5.2.4. Client A

Interviews with social service workers exposed the gut-wrenching truth about how the current system is failing some of our most vulnerable residents. Many interviewees working in the social service sector shared how Worcester's homeless residents are falling through the cracks because of gaps in the system within social services, health services, and between the two. See Appendix F to read the story of Client A, a chronically homeless resident of Worcester. His story shows how these gaps in services lead to detrimental results for our homeless population. With the work done with this project, the goal is to prevent stories like this from continuing.

VI. <u>ANALYSIS</u>

Once all interviews were completed I was able to analyze the findings to learn the varying issues facing Worcester from a more systematic perspective. In order to analyze the interviews all together I divided them into three categories based largely on the question topics, but also on the resulting conversations. The categories are (1) gaps and barriers of the current system, (2) strengths and assets of the current system, and (3) implications and solutions. While interviews were divided into these three categories for initial analysis, what arose after analyzing these notes did not fit into the categories, but spoke largely to the

function of the system as a whole. In analyzing the findings a few overarching themes arose that will help us understand the system as a whole and ways we can target potential solutions in the future.

Substance abuse was seen as a huge issue with homeless individuals by health service workers, to the extent that health service workers expressed that almost all homeless individuals were using and to no one's fault but their own. Substance abuse for many is a mental health issue, it is not something that they can simply decide one day to quit. Likewise, when their life has so many things going wrong, substance use might seem like their only choice to make it to the next day, it's something that they can do to forget about the miseries of life. Health service workers seemed largely to misunderstand this mental health issue and instead blame the homeless' use of substance for their current situation. The fact that health services workers themselves express the largest bias of all interviewees regarding homeless individuals and substance use is very concerning. Substance abuse, mental health, and homelessness are all issues that come with their own stigmas and misunderstandings, both in the public, and apparently within health professions as well. It is evident that more education is needed in these fields in order to reduce stigma, give an accurate portrayal of the issues, and teach that these illnesses and situations are often not a choice. The relationship between substance abuse and mental health is not well understood considering that for much of the homeless population coexisting issues makes things more difficult. In addition to education, in order for both social and health service workers to provide the type of

coordinated care homeless individuals need, an understanding of how substance abuse and mental health issues work within these systems in needed.

Homelessness is a multifaceted issue, as is the system in which we provide care to the homeless. It became apparent through analysis that this system is very divided and very broken. The first question asked during interviews was of the strengths and assets of the system. Few interviewees were able to list any strengths or assets, and ones that were listed almost always overlapped with what was mentioned by others. The fact that so few strengths and assets were listed shows that there are definitely ways in which we can improve the system. When asked to list any strengths and assets of the system, interviewees listed one, maybe two, if any strengths, followed with a "but…" and a detailed explanation of what was also wrong with that factor. For example, CHL/HOAP was listed as an asset by many of the representatives in both sectors (Interviews C, D, E, F, H), but was often followed up with an explanation that they are relatively small and are limited in who and how they can help. This overarching response shows that this system is in need of some intense TLC.

After asking of the strengths and assets of the system, interviewees often ended up talking about other unrelated gaps and barriers without being prompted by the gaps and barriers question. In well over half of the interviews this was the case, perhaps it was just interview jitters, but I think that most of them recognize that the system as a whole has a number of real gaps. The fact that it was easier for all parties to identify gaps in the system was disappointing, but also reflective of the system itself. The system as a whole is in need of more "great resources," something for homeless individuals between hospitals and

shelters, clinical and social case management, policy changes, and more shelters, beds, affordable housing, and social services. All of these things are tangible solutions that we can consider working towards, but will likely take time to put into action and to begin effecting the issue of homeless individuals' health continuing to worsen.

With this said, we must also pose the question of responsibility: Who's problem is it? The answer is that it is not one person or one organization's problem, rather, the solution will require coordination and collaboration by many. The current system is totally fragmented, as we have seen by the process itself, but also in responses during the interviews. Division of the system into health services and social services was done after interviews as a result of the interviews showing a distinct separation between the two. In the interviews I found that social workers were often the ones noting the more social issues (not enough behavioral health, affordable housing etc.) and many of the solutions posed by health service professionals were typically only targeted to the work they did, only a few spoke to the system as a whole. Even within health services, most problems and solutions discussed in interviews only reflected the specific field they were in, whether they were in the emergency room, emergency mental health, etc. Many of the gaps and barriers listed by both sectors reflected their poor opinion of the other side. Each sector, while they recognize they are not perfect, thought the main issue was with the other. Upon analysis I believe that there are two main reasons that this is the case: a lack of understanding and a lack of communication. Both of these could potentially be fairly simple to fix, at least in terms of time and funds required, and would come with great reward.

The first factor contributing to the separate systems is a lack of understanding. Interviewees had knowledge of their own specific systems but limited information and understanding of systems outside of their direct work. In looking at the issue of health care for the homeless, it really is two separate systems, health and social services. While this might be the case, if a change is to be affected, both parties will need to look at and attempt to understand both sides of the equation. In order to understand how the system as a whole is effecting our most vulnerable populations, it is necessary to understand each other's systems and the ways in which the systems interact. It will be impossible to get together and find a solution if we can't even recognize the other systems involved.

The second factor that is contributing to these divided systems is a lack of communication and collaboration. As one interviewee put it, Worcester has a wealth of different agencies, but there is a lack of communication between them all (Interview G). This in the long run will not necessarily affect them directly, but it is effecting those relying on their work. Individuals get lost in the system because social service workers and health service workers lack of communication and collaboration. Many sited HIPAA as a factor that has limited communication about certain individuals and their health information. While this is a legitimate factor, until something can be done to change it, we must investigate other steps that can be taken to improve communication. HIPAA is by far not the only factor limiting communication, issues with who to call, unanswered phone calls and discharge plans being ignored are things that can be changed without having to change policies. Through all my interviews I heard lots of good ideas about how to improve understanding,

communication and collaboration. When these separate systems can see past their differences, come together to make a plan and put it into practice we will begin to see change.

The health service and social service systems operate completely on their own with little communication and collaboration between the two. A bridge between these two systems needs to be made before we can do anything else. By bridging the two systems together, through collaboration and communication and eliminating the distinct barrier between the two, we can begin to fill in the gaps where individuals have been lost in the past.

VII. SOLUTIONS

Solutions to improve the homeless system were taken from what health and social services workers recommended in interviews. While a majority of the solutions are ones that can be applied in many communities, it is important to consider the system infrastructure regarding health care for the homeless, as well as assumptions these solutions might make and the appropriateness of the solution for a specific community. These interventions and solutions are specific to Worcester and are takeaways of the author's research and conclusions made of the system based off of that data, thus might not be appropriate in every community.

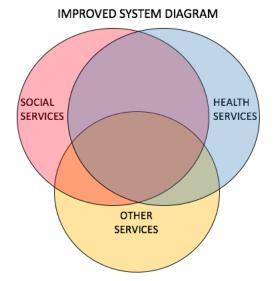
7.1. Proposed Short-term Solution: Collaboration and Communication

Practically every interview's reflection on gaps and barriers spoke to the need for greater collaboration and better communication from both health services and social services in Worcester. Collaboration speaks to the relationships within and between organizations. Five benefits of enhanced collaboration are: improved client outcomes, better client satisfaction, better risk management, lower costs, and better employee satisfaction (McDonald, 2016). Collaboration between hospitals and social service agencies regarding vulnerable populations needs to be tailored to the role of specific agencies and the needs to the patient, which can make it fairly complicated. However, establishing collaboration between already existing parties would be a solution that works to strengthen the current infrastructure as opposed to building additions onto it. Many interviews suggested that funding could help solve the problem of poor health care for the homeless, funding however is difficult to come by. For Worcester, enhancing the services we already have will be a fairly simple and cost-effective alternative to other pricier options and should have great reward. In order for this to work in Worcester we need to bring together all the agencies involved in providing health and social services for the homeless population. For further details on ways in which this meeting could be facilitated, see Appendix G.

Collaboration will need to consider ways in which we can improve networking, discharge planning, follow-up visits, transportation, and communication. While collaboration is necessary, additional research in these topics will help enhance these efforts. The "Resource" section below provides some sites that have a large supply of resources for communities and agencies looking to improve certain aspects of their homeless system. An important part of this collaboration includes networking, allowing health service workers to learn agencies and social services as well as the individuals who work at them. Ways in which we can promote networking amongst Worcester health service and social service agencies will need to be considered as a continual process. Networking is an important part of any job, but in providing care to this vulnerable population networking is especially important in providing a continuum of care. Communication plays a key role in effective collaboration. Once relationships are created, communication functions as a tangible factor that allows those relationships to continue. Worcester agencies need to work together to create a means of real-time, seamless communication that works across agencies.

7.1.1. Improved System Diagram

Building on the previous diagram of Worcester's current homeless system, the following diagram shows a system in which collaboration and communication have been improved.



Explanation: With this design the goal is better collaboration and communication between agencies, but also agencies that exist within the overlap. By increasing the overlap by means of communication and collaboration, tightening the system, eliminating the distinct barrier

between the two and creating bridges and paths that connect them all, the system will begin to fill in the gaps where individuals have been lost in the past.

7.2. Proposed Short-term Solution: Trainings

Several social service representatives expressed the need of further training for health service workers. This proposal speaks largely to the division of the two systems but would help the health service side understand social services more and potentially unify the two separate systems by allowing for a more united effort to providing health care for Worcester's homeless population. Training topics considered interviews spoke predominantly to two of the issues homeless patients experience, lack of compassionate care and lack of informed care.

Regarding informed care, social service workers suggested extensive diversity trainings, training on understanding and handling someone under the influence, and a greater understanding of complex drug reactions. One of the issues in Worcester was inappropriate discharge from the hospital to the triage center. Triage center staff suggest that hospital staff come see the shelter environment to know the conditions they are discharging to and to perhaps prevent future such discharges from occurring. In terms of compassionate care, social service workers suggested that we inform health workers of what it is to be homeless, that not all are addicts, but many are just faced with one too many of life's challenges. One of the main issues with homeless receiving care at hospitals were complaints of unfair treatment on the grounds of being homeless. Social services workers suggested that we have lost a sense of human connection in our medical system and need to find a way to reintegrate

adequate, fair and equal assessment, treatment and discharge back into the routine. On a similar note it was suggested that we need the inclusion of care for vulnerable populations in the curriculum to become a doctor, nurse, clinician or other health service worker. While these trainings sound like a great idea and could help establish better, compassionate and understanding care, I worry about the receptiveness of them by healthcare staff. Compassionate care is not something that you can simply teach. Compared to their mainstream healthcare counterparts, healthcare programs that deal with specifically homeless and other vulnerable populations have shown to provide the compassionate care that patients desire, both in Worcester and across the nation.

7.3. Proposed Medium-term Solution: Policing

Policing is a huge issue with many city's homeless populations. Homeless individuals and families are often scared of police and avoid them at all costs. Police are figures in our community who should help keep the community safe and help keep its people safe. In many communities, while being homeless is not criminalized, people experiencing homelessness fear the police because of the power they have, they fear getting arrested for one thing or another. Recent efforts in the city of Worcester and in other cities have aimed to change this conception. Worcester's creation of CIT officers and the Quality of Life Taskforce has effectively begun to change the relationship police have with homeless individuals, but there are still ways in which they can improve (Interview B). Social service workers requested more availability of CIT officers and a greater sense of community policing (Interview B). By community policing they referred back to when they were a kid and police knew the entire neighborhood, they couldn't skip school without someone finding out because everyone knew everyone. Sincere, honest community policing, especially with our most vulnerable populations is needed as opposed to the policing that deals with criminals, raids, johns, and drugs. As one Worcester police officer put it, the homeless and mentally ill need services, not jail (Interview G). Worcester is on its way to transforming it's policing, but the CIT and Quality of Life Taskforce is only a small portion of their team.

The City of Cambridge, MA, for example, has created the Homeless Outreach Program, which, like Worcester's Quality of Life Taskforce, is a multi-disciplinary group dedicated to working with the city's homeless population. The group works to develop new strategies for interacting with the homeless population and to identify pathways through which the homeless can obtain housing and succeed in their new environment (CPD, 2017). The Worcester Police Department would definitely benefit by looking at ways other cities are changing the reputation of their police departments and ways in which their police departments are helping vulnerable populations receive and stay connected with services. While CIT and the Quality of Life Taskforce are a great beginning, having the entire Police Department on board with these new practices would greatly benefit Worcester's homeless population.

7.4. Proposed Long-term Solution: Medical Respite Beds and Psychiatric Beds

One of the major gaps in Worcester's provision of care for homeless patients, and one that is seen in many other communities as well, is the gap that presents itself when a patient is too healthy for the hospital but not healthy enough for the shelter. As discussed earlier, the shelter environment is not one that is conducive to individuals recovering from procedures or dealing with chronic or acute medical conditions that need special attention. Medical respite programs fill in the gap in the continuum of care for homeless patients by providing a safe space for those in need of special medical attention but not to the point of needing a hospital stay.

The National Health Care for the Homeless Council (NHCHC) found 78 medical respite programs in the U.S. Operating agencies of these 78 medical respite programs were either non-profits (60 programs), hospitals (14 programs), Health Care for the Homeless (HCH) (27 programs), and/or public (6 programs). For individuals using these services the average length of stay was 42 days and in addition to medical care, services included in these programs almost always include meals, transportation and case management (NHCHC, 2016).

The Barbara McInnis House in Boston is the only medical respite program in the state of Massachusetts and one of only three in all of New England (the other two are in Connecticut and operate out of homeless shelters, New Haven Columbus House Respite Program and New London Homeless Hospitality Respite). From 1988-1993, Boston Health Care for the Homeless Program (BHCHP) had shelter-based medical beds, but in 1993 opened the Barbara McInnis House, a stand-alone facility within BHCHP which provides care to homeless men and to women with comprehensive medical, nursing, behavioral, dental, and case management services. It has 104 medical respite beds with an average length of stay of 12 days. The program admits patients 24 hours a day, seven days a week from

hospitals, shelters, emergency departments, outpatient clinics, and directly from the street by referral from their BHCHP Street Team. In terms of clinical staff, they have on-site physicians, nurse practitioners, physician assistants and nurses, but also offer dental, podiatry, optometry, and physical therapy. In addition, the Barbara McInnis House has onsite a full service pharmacy. Their funding sources include hospital funding, HRSA 330(h) funds, HUD funding, Medicaid/Medicare funding, as well as private donations and foundation grants (NHCHC, 2016).

The NHCHC has an entire page dedicated to their medical respite tool kit and includes resources to help organizations and advocates plan, develop, and sustain medical respite programs in their own communities. They have easily accessible resources pertaining to development and finance, operations, as well as policy and advocacy (NHCHC, 2017). Creating medical respite program in Worcester would require the collaboration of numerous social services agencies, hospitals and other health services agencies. While the stand-alone medical respite program in Boston is one of the best, it might not be practical for a city like Worcester, rather an addition of a medical respite program to an existing homeless shelter might be the more promising.

The idea of incorporating medical respite beds in Worcester, either within the existing shelter system or as a new entity is definitely a long-term goal. In the short-term, as suggested by interviewees, a systematic approach needs to be developed for our homeless patients in the hospital and at discharge. Part of the issue with this is staff training, where improperly informed staff are not aware of the guidelines for discharging homeless patients

or even for caring for them. Much of the current health system is what one interviewee referred to as a cookie cutter system in which everyone receives the same care. This model has proven to be negligent in terms of providing the care homeless patients need; with homeless in particular, every patient and every case is unique and their treatment and discharge planning needs to be as well. At intake and assessment staff needs to understand where patients are coming from and not immediately planning their discharge. While Worcester might not be able to have a program like BHCHP in place in the near future, perhaps Worcester could start a smaller version of it at hospitals with specialized teams that are trained to work with homeless patients. The Baltimore chapter of HCH has care teams comprised of 6-12 members that represent the range of clinical roles needed to meet all clients' whole-person care needs (Baltimore HCH, 2017). While these teams operate in a health home, the idea is something that could conceivably be practiced in a hospital. Incorporation of care teams into Worcester emergency departments that experience high traffic of homeless patients could help provide tailored care to homeless patients.

7.5. Proposed Long-term Solution: Proactive Health Care

A major gap in Worcester's provision of care for homeless patients is the lack of services for proactive medical, dental and psychiatric care. With proactive health care we would see fewer homeless patients experiencing worsening chronic illness, worsening injuries and acute illnesses and in the long run would spend less in emergency and hospital care. The seventh objective with Opening Doors is to improve health and stability by integrating primary and behavioral healthcare services with homeless assistance programs and housing to reduce people's vulnerability to and the impacts of homelessness (USICH, 2015). Proactive health care for our vulnerable populations in collaboration with stable housing has proven to be an effective and cost-saving intervention. An excellent example of how this has been done is the Boston chapter of HCH (BHCHP), which provides services in adult primary care, behavioral health, family care, medical respite care and oral health (BHCHP, 2017). In terms of primary care, BHCHP has 60 clinic locations throughout greater Boston, but also follow patients on the streets, in their medical respite program, in shelterbased clinics, and in hospitals and housing (BHCHP, 2017). They aim to provide regular contact and uninterrupted care, something that is lacking in the Worcester system. As BHCHP states, "Without BHCHP these patients would either go untreated until more serious issues arose or they would find their way to hospital emergency and urgent care departments around the city" (BHCHP, 2017). Partnerships that have allowed BHCHP to be so successful are vast and range from collaboration with the medical community and shelters, to the state and federal government (BHCHP, 2017). They're list of partnerships listed over 100 partnerships, Worcester will need to work on collaborating and strengthening its relationships between agencies before we can tackle something this large.

7.6. Proposed Long-term Solution: Shelters

One of the issues with Worcester's homeless system is the lack of shelters. As one of the interviewees said, we just need to give the homeless a place to sleep. Not only does Worcester need more shelter beds, shelter requirements also need to be more flexible. For non-profit agencies who get outside funding, requirements are often determined by the funder and limit the agency from helping certain people. One way in which Worcester is already increasing emergency beds for homeless, particularly in the winter is through opening emergency shelters through churches. It would be worth looking into whether churches would be willing and able to start having emergency shelter beds in all seasons, but also working with existing shelters to increase capacity and access more funds to do so. In the long run the goal is stable, affordable housing instead of shelters, but emergency shelters offer a place for homeless who have not yet had the chance to finish the process for attaining more permanent housing.

7.7. Proposed Long-term Solution: More Affordable Housing/Public Housing

The third objective in Opening Doors is to provide affordable housing to people experiencing or most at risk of homelessness by increasing access to stable and affordable housing (USICH, 2015). The logic behind this objective lies in the primary factor that leads to homelessness: those with low income are unable to afford the high cost of housing. If we can target the factors that lead to homelessness before they have time to occur, we can prevent homelessness from happening in the first place. In order for this to work we need to provide affordable housing to the populations most vulnerable of becoming homeless. Increasing affordable housing can work on two levels, preventing homelessness, and rehousing the homeless. The Housing First model has been adopted by many communities and has proven to be an effective policy in housing the homeless. As stated in Opening Doors, "the Housing First approach in supportive housing incorporates strategies that minimize barriers to housing access or pre-conditions related to housing readiness, sobriety, or engagement in treatment. They assist participants to move into permanent housing quickly and provide the intensive supportive services needed to help residents achieve and maintain housing stability and improvements in their overall condition. These practices seek to end homelessness by "screening in," rather than "screening out" the most vulnerable people who are experiencing chronic homelessness and often have the greatest challenges to housing success" (USICH, 2015). By increasing affordable housing and including social services in housing we would be able to not only work with previously homeless individuals and families on social issues, but also in terms of health care. The concept of "housing as health care" argues that housing acts as one of the factors that strongly influences individual's health. Think about it this way: without a house, individuals have little control over their environment, which can lead to both chronic and acute illnesses, but also if they do get sick, they have no means of recovering in a safe space. Opening Doors lists five strategies to increase access to stable and affordable housing (USICH, 2015).

- 1. Support additional rental housing subsidies through Federal, state, local and private resources;
- 2. Expand the supply of affordable rental homes where they are most needed through Federal, state, and local efforts;
- 3. Improve access to federally-funded housing assistance by eliminating administrative barriers and encouraging prioritization;
- 4. Encourage collaboration between public housing agencies, multifamily housing owners, and homeless services;

5. Increase service-enriched housing by co-locating or connecting services with affordable housing (USICH, 2015).

In Worcester, efforts to connect with housing agencies, multifamily home owners and landlords would need to be made in order to promote the idea of affordable housing in already existing units. For future developments, benefits of incorporating low-income housing need to be promoted and lobbied for. This work would ideally come out of existing networks with landlords and homeless agencies, but also new ones will likely need to be created between these agencies, the City of Worcester and landlords and developers.

7.8. Proposed Medium-term Solution: Case Management

Studies show that clinical and social case management helps drastically improve health outcomes for homeless and other vulnerable populations. A 2009 study looked at the effectiveness of case management and housing in reducing hospital visits in a group of 407 homeless individuals in Chicago experiencing chronic health issues (Sadowski, 2009). Case management was offered onsite, at transitional housing, and at permanent housing. After 18 months of housing and case management services, the group of formally chronically homeless individuals was experiencing 29% fewer hospitalizations, 29% fewer days in the hospital and 24% fewer emergency room visits (Sadowski, 2009). The study was able to conclude that addition of stable housing and case management helped decrease hospital visits and days spent at the hospital in homeless individuals experiencing chronic health issues (Sadowski, 2009). Improved case management in clinical and social care guides patients through the system and helps them get back on their feet. In the Chicago study, usual care amounted to a hospital social worker who helped with discharge but had no continued relationship after discharge, similar to what many of Worcester's homeless patients have. The intervention that produced the results was case management at the hospital and at the housing sites, be it transitional, medical respite, or permanent housing. Case managers all had a master's level education, no more than 20 clients, and were in touch with their clients at least bi-weekly (Sadowski, 2009).

In terms of the services provided in case management, services can vary greatly. In a supplemental document to the Federal Strategic Plan to Prevent and End Homelessness, USICH identifies permanent supported housing as a cost-effective strategy for ending chronic homelessness (USICH, 2010). The key word with this strategy is "supported." According to USICH, permanent supported housing is not one specific program model, rather it encompasses all "subsidized housing matched with accompanying supportive services" (USICH, 2010). These supportive services help clients overcome obstacles such as mental health issues and substance abuse, that might hinder them from remaining housed. Clinical case management might include services that help tenants manage their health or mental health problems, aid in the use of health care services, limit their substance use or prevent relapse, develop social skills, and navigate the social services system. On the more social side of case management, supportive services can offer clients assistance in learning skills necessary for independent living through services such as budget counseling, employment services, educational programs, legal services and transportation (USICH, 2010).

A unique take on case management for social services is the use of peer-delivered social support services. Peer support, particularly with homeless individuals dealing with substance abuse or mental health issues, offers clients a means to tackle their issue with someone who knows what they are experiencing, someone who has navigated the system before and has overcome those problems. Training and certification is needed in most cases, but for a homeless client to be able to connect with someone who has shared these experiences is often times a life changing opportunity (NHCHC, 2013).

Interviews showed that currently workloads for social workers and case managers are too much and many homeless individuals have no idea who their case manager is if they have one at all. For Worcester, improved case management would definitely benefit all parties at hand. Decreasing the workload of current case managers would allow workers to focus more on each of their clients and for clients to benefit from their assistance. Increased funding to hire and/or train more case managers is needed and grants could be a potential source to fill that gap. Insurance companies as well are often including case management for certain patients, which is something that agencies need to understand in more detail to permit them to utilize services that currently are untapped. UMass Memorial has an entire staff dedicated to case management of hospital patients that qualify for their services through either MassHealth or Medicaid. This resource and others like it is something that needs to be included in future discussions and utilized more readily.

7.9. Proposed Long-term Solution: Statewide Health Records System

A statewide electronic health records system is something that many states are beginning to implement. While it is an extremely expensive project and takes years to build the networks necessary for it to work, it allows doctors to provide better care by making it easier to find patients' records and by cutting down on unnecessary treatments. In terms of providing health care to the homeless individuals, a statewide electronic health records system would help doctors provide the best care, which has often been lacking for populations who don't have primary care and easy access to their own health records. By knowing who patients have seen, for what, and the type of treatment given, doctors will be able to provide care that is more tailored to the patient's medical history. While there are many states joining the efforts to implement a statewide electronic health records system, the program in Illinois provided more information than others. For a contract of \$7.25 million, the Illinois state government hired InterSystems, a software company that works on providing connected care, to develop the Illinois Health Information Exchange (IHIE). Illinois received \$18.8 million over four years from a federal grant program that helps states to assist healthcare providers and hospitals with the exchange of electronic health records (InterSystems, 2012). Governor Pat Quinn (2009-2015) of Illinois stated that, "Building our electronic health information exchange is a major step in transforming health care and helping patients," Governor Quinn said. He continued by saying, "statewide access to electronic records means that vital patient information will be instantly available to doctors

and hospitals when it is needed most, improving healthcare delivery and saving lives" (InterSystems, 2012).

David Bates of Brigham and Women's Hospital in Boston, conducted a pilot study ending in September 2008 of three Massachusetts communities regarding the statewide implementation of electronic health records. The study looked at usage rates of electronic health records (EHR) in the state, how EHR might reduce medication errors and improve the quality of outpatient care, how receptive doctors were to EHR, and what kind of programming would help increase adoption of EHR implementation. Bates found that barriers to adoption of EHR in medical practices was largely due to financial limitations. Of those who had adopted EHR for their practice, Bates found that only a small portion were consistently using key functions, the use of which proved to improve quality of care and reduce malpractice settlements (Bates, 2008). The more practices that use EHR the easier a statewide electronic health record system will be to put in place. Massachusetts has over six million residents cared for by approximately 20,000 physicians in about 6,000 practices (Bates, 2008). While this study does not address the effects an electronic health records (EHR) might have on homeless populations, in theory homeless populations would benefit similarly in terms of improved care as a result of the records system. This is a long-term solution that would need to take place at the state level, not local. At the local level, however, it would be important to bring up support of a statewide electronic health records system at state wide functions, but also to encourage use of EHR by local health practices.

7.10. Proposed Long-term Solution: One Stop Shop

The proposed idea of a "One Stop Shop," a place where homeless individuals can go to get all the necessary paperwork for services is an idea that has been put into place in a few communities. The foundation of this idea came from social service workers seeing homeless individuals sent from agency to agency to get all the paperwork necessary for housing and other services. This process proved far too complicated and many homeless individuals would give up before receiving services. The concept of a "One Stop Shop" is a part of creating a continuum of care for homeless clients. A great example is the One Stop of Baton Rouge's Capital Area Alliance for the Homeless (CAAH). CAAH is a continuum of care network for the homeless in the Baton Rouge Capital Area and has several member agencies that help to provide housing (Emergency Shelter, Transitional Housing, and Permanent Supportive Housing), outreach, Medicaid enrollment, behavioral health referrals, substance abuse treatment, veterans services, life skills training, job training/placement, youth shelters, and literacy/GED classes (CAAH, 2017). The One Stop streamlines the process of serving homeless families and individuals. Homeless clients are able to access a broad range of services in one location, which help to streamline the process of housing homeless families and individuals (CAAH, 2017).

In Worcester some of the larger agencies that provide services across the board, such as SMOC and Veterans Inc., might be a good candidate for a project such as this. With a "One Stop Shop," location would be incredibly important to consider as you would need it to be in a place that is easy to access for clients.

7.11. Proposed Long-term Solution: Policy Changes

In a perfect world we would have policies that significantly reduce rates of economic instability, job insecurity and other factors that lead to homelessness. Policies have been shifting that with recent administrations with the McKinney-Vento Act of 1987, the Affordable Care Act of 2010, the American Recovery and Reinvestment Act of 2009 and others. However, the future of where political legislation might go is currently unclear. Policy change on the local level, however, is still persuadable, which is where local government and citizen participation steps in. The Housing First policy, for example, which is adopted at a local level has shown to reduce or solve the issue for many cities.

7.12. Proposed Long-term Solution: Funding/Grants

In terms of ability to implement many of the above solutions, increased funding will be needed. Grants are an excellent way to fund projects that help our most vulnerable populations. CAAH agencies, for example, have received over \$20,000,000 from the U.S. Department of Housing and Urban Development's McKinney-Vento Supportive Housing Program for specific projects and partnerships since 1996 (CAAH, 2017). In looking at funding sources for projects, the type of agency responsible for the project, time range and type of services provided will all need to be considered, but funding sources can range from federal funding to foundation grants, crowd sourcing and private donations. Sometimes finding funding will require thinking outside of the box or tailoring your program to the funders request. In looking to expand their services, non-profits might consider applying for private funding or even federal funding. For large scale projects federal funding might be the best bet as they provide multimillion dollar funds for many initiatives, including supportive housing, statewide health record systems, medical respite beds, and more. For Worcester, looking into what sort of programs the federal government is funding and what sort of organizations are getting those funds will be immensely beneficial in large scale projects for the future.

7.13. Resources

USICH has published numerous resources on their website that provide tools for those looking at implementing these solutions. Their solutions speak to all factors impacting homelessness and include housing, health, jobs, education, crisis response, criminal justice reform and collaborative leadership. Each of these factors has a data base of tools available to the public. Health care for example has tools such as "A Quick Guide to Improving Medicaid Coverage for Supportive Housing Services" and "Engaging Legal Services in Community Efforts to Prevent and End Homelessness."

NHCHC has a website with additional web resources in the areas of government, housing, homelessness, health, policy and advocacy but also has their own tool kits for topics such as medical respite, case management, and discharge planning. NHCHC also has a practice-based research network with various studies that might help various communities decide what would work best for them by looking more in depth at how others accomplished certain solutions.

VIII. CONCLUSION

In order to address the issue of homelessness, the structural integrity of the system must be first be addressed. By building a strong basis for the system through increased collaboration and improved communication of all parties involved, homeless individuals will be able to receive better care. While a solid base is necessary, it is also important to keep in mind the multidimensional nature of the issue of homelessness, and the internal and external forces acting against homeless populations. Many of these forces will require long term solutions and changes in many sectors, but improvements in collaboration and communication and other solutions mentioned in this paper will begin a cascade of change to the system.

In reflecting on what I learned through this research, I discovered that this was all much more complicated and fragmented that I had originally thought. While I predicted the lack of resources within the city, I did not think there was going to be as many issues with communication and collaboration. I learned that what I assumed was going to be one system in providing health care for homeless individuals was, in reality, divided into two systems that have had very little history of collaborating on the issue of homelessness. The current approach for agencies in the city of Worcester regarding health care for the homeless is very fragmented, agencies don't talk to each other and as a result homeless individuals get bounced back and forth and end up falling through the cracks. By exploring the homeless system of Worcester the gaps and barriers that have limited provision of adequate and effective health care to our homeless population were identified. Through investigating the issues that Worcester is experiencing and solutions to match, this case study has laid the groundwork for gateway cities and other communities experiencing similar problems.

IX. FIGURES

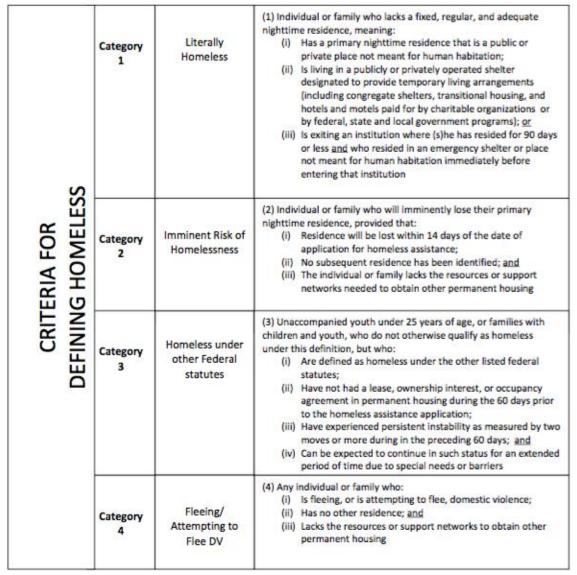


Fig. 1. The Criteria for Defining Homeless as dictated by the U.S. Department of Housing and Urban Development. Source: HUD, 2012

	Category 1	Literally Homeless	 Written observation by the outreach worker; <u>or</u> Written referral by another housing or service provider; <u>or</u> Certification by the individual or head of household seeking assistance stating that (s)he was living on the streets or in shelter; For individuals exiting an institution—one of the forms of evidence above <u>and</u>: discharge paperwork <u>or</u> written/oral referral, <u>or</u> written record of intake worker's due diligence to obtain above evidence <u>and</u> certification by individual that they exited institution
RECORDKEEPING REQUIREMENTS	Category 2	Imminent Risk of Homelessness	 A court order resulting from an eviction action notifying the individual or family that they must leave; <u>or</u>. For individual and families leaving a hotel or motel—evidence that they lack the financial resources to stay; <u>or</u> A documented and verified oral statement; <u>and</u> Certification that no subsequent residence has been identified; <u>and</u> Self-certification or other written documentation that the individual lack the financial resources and support necessary to obtain permanent housing
SDKEEPING F	Category 3	Homeless under other Federal statutes	 Certification by the nonprofit or state or local government that the individual or head of household seeking assistance met the criteria of homelessness under another federal statute; and Certification of no PH in last 60 days; and Certification by the individual or head of household, and any available supporting documentation, that (s)he has moved two or more times in the past 60 days; and Documentation of special needs or 2 or more barriers
RECOF	Category 4	Fleeing/ Attempting to Flee DV	 For victim service providers: An oral statement by the individual or head of household seeking assistance which states: they are fleeing; they have no subsequent residence; and they lack resources. Statement must be documented by a self-certification or a certification by the intake worker. For non-victim service providers:

Fig. 2. The Recordkeeping Requirements for homelessness as dictated by the U.S. Department of Housing and Urban Development. Source: HUD, 2012

Homeless Individuals						
United States Massachusetts Worcester County						
549,928 19,608 1,572						

Fig. 3. The annual Point in Time count of the nation's homeless population reports from the night of January 27, 2016. Source: HUD Exchange, 2016. These half a million homeless individuals were either sleeping outside, in an emergency shelter or in transitional housing (National Alliance to End Homelessness, 2016).

Worcester County Breakdown				
All	1,572			
Veterans	160			
Unaccompanied youth (under 25)	26			
Parenting youth (under 25)	70			
Children of parenting youth	102			
In Families				
Sheltered	1,044			
Unsheltered	0			
Chronically homeless	24			
Individuals	528			
Sheltered	462			
Unsheltered	66			
Chronically homeless	41			
Chronically homeless unsheltered	14			

Fig. 4. Worcester County Point in Time count. Source: HUD Exchange, 2016

Persons in Households without Children							
		Sheltered					
	Emergency	Transitional	Safe Haven	Unsheltered	Total		
Total Number of Households	146	194	13	28	381		
Total Number of Persons (Adults)	160	194	13	31	398		
Number of Persons (18 - 24)	10	2	0	3	15		
Number of Persons (over age 24)	150	192	13	28	383		
Average Household Size					1.4		

Fig. 5. The 2016 Annual Point in Time count done by Central Massachusetts Housing Alliance, Inc. (CMHA) on January 27, 2016 of all homeless populations within the City of Worcester. This chart shows all homeless households without children. Source: CMHA, 2016

Other Homeless Subpopulations						
	Sheltered	Unsheltered	Total			
Adults with Serious Mental Illness	226	27	253			
Adults with Substance Abuse Disorder	224	21	245			
Adults with HIV/AIDS	4	0	4			
Victims of Domestic Violence	63	3	66			

Fig. 6. The 2016 Annual Point in Time count (PIT) done by Central Massachusetts Housing Alliance, Inc. (CMHA) on January 27, 2016 of all homeless populations within the City of Worcester. This chart shows all homeless subpopulations. This count includes adults in households with and without children. Source: CMHA, 2016

Total Households and Persons						
		Sheltered				
	Emergency	Transitional	Safe Haven	Unsheltered	Total	
Total Number of Households	297	252	13	28	590	
Total Number of Persons	650	368	13	31	1062	
Number of Persons (under age 18)	296	108		0	404	
Number of Persons (18 - 24)	63	19	0	3	85	
Number of Persons (over age 24)	291	241	13	28	573	
Average Household Size					1.8	

Fig. 7. The 2016 Annual Point in Time count done by Central Massachusetts Housing Alliance, Inc. (CMHA) on January 27, 2016 of all homeless populations within the City of Worcester. This chart shows total households and persons experiencing homelessness. Source: CMHA, 2016

UMass Memorial University Campus Emergency Mental Health (Feb. 2016)			
Total Homeless Adults	37		
% Adult patients of total adult volume	8.3% (37/448)		
Homeless Adult seen between 5 pm – 9 am	21.6% (8/37)		
% Homeless with comorbid substance (means they are homeless	81.0% (30/37)		
and have substance abuse)			

Fig. 8. UMass Memorial University Campus Emergency Mental Health Department count from February 2016. Source: Interview with UMass Memorial EMH staff, 2017

		Margin of		Percent Margin of
Subject	Estimate	Error	Percent	Error
PERCENTAGE OF FAMILIES AND PEOPLE WHOSE INCOME IN THE PAST 12 MONTHS IS BELOW THE POVERTY LEVEL				
All families	(X)	(X)	17.2%	+/-1.2
With related children of the householder under 18 years	(X)	(X)	27.4%	+/-2.2
With related children of the householder under 5 years only	(X)	(X)	25.7%	+/-5.7
Married couple families	(X)	(X)	8.3%	+/-1.1
With related children of the householder under 18 years	(X)	(X)	12.4%	+/-2.1
With related children of the householder under 5 years only	(X)	(X)	9.2%	+/-4.3
Families with female householder, no husband present	(X)	(X)	34.3%	+/-3.6
With related children of the householder under 18 years	(X)	(X)	46.4%	+/-4.7
With related children of the householder under 5 years only	(X)	(X)	57.2%	+/-13.8
All people	(X)	(X)	22.4%	+/-1.1
Under 18 years	(X)	(X)	31.5%	+/-2.6
Related children of the householder under 18 years	(X)	(X)	31.2%	+/-2.6
Related children of the householder under 5 years	(X)	(X)	33.9%	+/-4.1
Related children of the householder 5 to 17 years	(X)	(X)	30.0%	+/-2.8
18 years and over	(X)	(X)	19.9%	+/-1.1
18 to 64 years	(X)	(X)	20.9%	+/-1.2
65 years and over	(X)	(X)	14.7%	+/-1.6
People in families	(X)	(X)	18.4%	+/-1.3
Unrelated individuals 15 years and over	(X)	(X)	33.5%	+/-1.7

Fig. 9. Breakdown of the percentage of families and people in the city of Worcester whose income in the past 12 months is below the poverty line. Data from the 2015 American Community Survey. Source: United States Census Bureau, 2016

		Total		Below poverty level		Percent below poverty level	
Subject	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	
Population for whom poverty status is determined	172,365	+/-772	38,653	+/-1,927	22.4%	+/-1.1	
AGE							
Under 18 years	37,507	+/-860	11,813	+/-996	31.5%	+/-2.6	
Under 5 years	11,302	+/-621	3,828	+/-519	33.9%	+/-4.1	
5 to 17 years	26,205	+/-820	7,985	+/-750	30.5%	+/-2.8	
Related children of householder under 18 years	37,304	+/-868	11,633	+/-988	31.2%	+/-2.6	
18 to 64 years	113,414	+/-1,075	23,681	+/-1,305	20.9%	+/-1.2	
18 to 34 years	47,685	+/-1,128	12,037	+/-915	25.2%	+/-1.9	
35 to 64 years	65,729	+/-1,227	11,644	+/-786	17.7%	+/-1.2	
60 years and over	30,409	+/-1,042	4,798	+/-474	15.8%	+/-1.4	
65 years and over	21,444	+/-769	3,159	+/-360	14.7%	+/-1.6	
SEX							
Male	83,546	+/-1.029	17,612	+/-1,212	21.1%	+/-1.4	
Female	88,819	+/-1,005	21,041	+/-1,135	23.7%	+/-1.3	
RACE AND HISPANIC OR LATINO ORIGIN							
White alone	120,355	+/-2.030	25,133	+/-1.697	20.9%	+/-1.3	
Black or African American alone	22,758	+/-1,237	5,349	+/-684	23.5%	+/-3.0	
American Indian and Alaska Native alone	529	+/-155	149	+/-77	28.2%	+/-14.2	
Asian alone	12,785	+/-1.082	2.596	+/-573	20.3%	+/-4.2	
Native Hawaiian and Other Pacific Islander alone	78	+/-61	4	+/-7	5.1%	+/-10.1	
Some other race alone	8.255	+/-1.303	2.898	+/-714	35.1%	+/-5.9	
Two or more races	7,605	+/-1,025	2,524	+/-544	33.2%	+/-5.4	
Hispanic or Latino origin (of any race)	36.955	+/-1.354	14,134	+/-1.543	38.2%	+/-3.5	
White alone, not Hispanic or Latino	97,728	+/-1,780	16,187	+/-1,395	16.6%	+/-1.4	
EDUCATIONAL ATTAINMENT							
Population 25 years and over	115,775	+/-1.151	20.544	+/-1.098	17.7%	+/-1.0	
Less than high school graduate	18,256	+/-1,137	6,250	+/-677	34.2%	+/-3.0	
High school graduate (includes equivalency)	34,070	+/-1.233	6.897	+/-626	20.2%	+/-1.7	
Some college, associate's degree	28,838	+/-1.212	4,307	+/-405	14.9%	+/-1.4	
Bachelor's degree or higher	34,611	+/-1,270	3,090	+/-448	8.9%	+/-1.3	

Fig. 10. Breakdown of poverty status in the city of Worcester. Data is from the 2015 American Community Survey. Source: United States Census Bureau, 2016

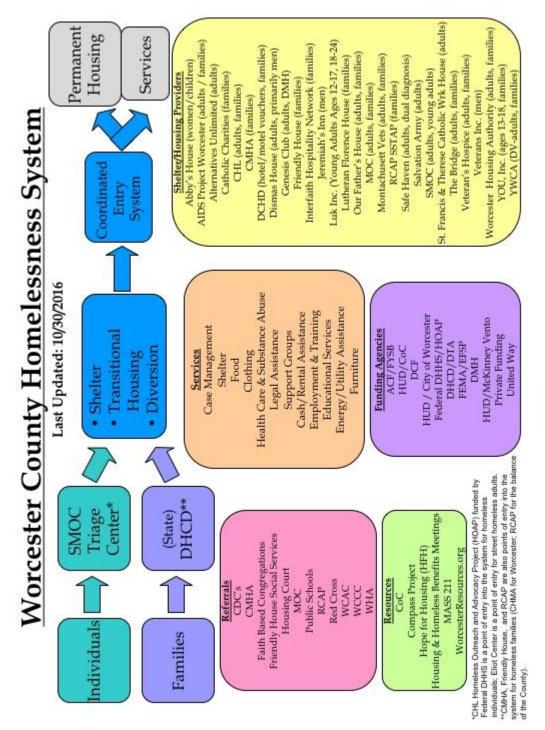


Fig. 11. Worcester County Homelessness Network Chart. Source: Katherine Calano, City of Worcester.

Bibliography

Baltimore HCH. (2017). Care Teams. http://www.hchmd.org/care-teams>.

- Boston HCH. (2017). Boston Health Care for the Homeless Program. http://www.bhchp.org>.
- Bates, David. (September 2008). Statewide Implementation of Electronic Health Records (Massachusetts). https://healthit.ahrq.gov/ahrq-funded-projects/statewide-implementation-electronic-health-records>.
- CAAH. (2017). Capital Area Alliance for the Homeless. http://www.homelessinbr.org/>.
- Calano, Katherine. (February 2017). Personal Interview.
- Central Massachusetts Housing Alliance, Inc. (Jan. 2016). Worcester City & County Continuum of Care MA-506 Point-in-Time 2016.
- Central Massachusetts Housing Alliance, Inc. (2017). CHMA. <www.cmhaonline.org>.
- City of Worcester. (February 2016). Crisis Intervention Training at Worcester Police Headquarters http://www.worcesterma.gov/wpd-press-releases/crisis-intervention-training-at-worcester-police-headquarters.
- Coalition for a Healthy Greater Worcester. (June 2016). Greater Worcester Community Health Improvement Plan CHIP 2016.
- CPD. (2017). City of Cambridge Police Department Homeless Outreach Program. https://www.cambridgema.gov/cpd/communityresources/homelessoutreachprogram>.
- Free Clinics. (2017). Free and Income Based Clinics in Worcester, Massachusetts. http://www.freeclinics.com/cit/ma-worcester>.
- Greysen, S. R., Allen, R., Lucas, G. I., Wang, E. A., & Rosenthal, M. S. (2012). Understanding Transitions in Care from Hospital to Homeless Shelter. Journal of General Internal Medicine, 27(11): 1484–91.
- HUD Exchange. (November 2016). PIT and HIC Data Since 2007. <www.hudexchange.info/resource/3031/pit-and-hic-data-since-2007/>.

- InterSystems. (January 2012). State of Illinois Selects InterSystems HealthShare For Statewide Electronic Health Records. http://www.intersystems.com/who-weare/newsroom/news-item/state-of-illinois-selects-intersystems-healthshare-forstatewide-electronic-health-records/>.
- Lin, W., Bharel, M., Zhang, J., O'Connell, E., & Clark, R. (2015). Frequent Emergency Department Visits and Hospitalizations Among Homeless People With Medicaid. American Journal of Public Health, 105 (S5): S716-S722.
- Manchester, A. (2016). Caring for the Homeless. Kai Tiaki Nursing New Zealand, 22 (7): 25-26.
- McDonald, Neil. (April 2016). 5 benefits of improved collaboration for social service agencies. http://info.athenasoftware.net/athena_blog/5-benefits-of-improved-collaboration>.
- National Alliance to End Homelessness. (2016). The State of Homelessness in America 2016. <www.endhomelessness.org/page/files/2016%20State%20Of%20 Homelessness.pdf>.
- NHCHC. (2006). The Hard, Cold Facts About the Deaths of Homeless People. < https://www.nhchc.org/wp-content/uploads/2011/09/HardColdFacts.pdf>.
- NHCHC. (Fall 2013). Speaking from Experience: The Power of Peer Specialists. https://www.nhchc.org/wp-content/uploads/2013/11/healinghands fall2013.pdf>.
- NHCHC. (2016). Respite Care Providers' Network 2016 Medical Respite Program Directory. https://www.nhchc.org/wp-content/uploads/2011/10/2016-MEDICAL-RESPITE-PROGRAM-DIRECTORY_FINAL2.pdf.
- NHCHC. (2017). Medical Respite Tool Kit https://www.nhchc.org/resources/clinical/ medical-respite/tool-kit/medical-respite-programs-united-states/>.
- Sadowski, L., Kee, R., VanderWeele, T., Buchanan, D. (May 2009). Effect of a Housing and Case Management Program on Emergency Department Visits and Hospitalizations Among Chronically Homeless Adults. JAMA. 301 (17): 1771-1778.

Saint Vincent Hospital. 2017. Saint Vincent Hospital. <www.stvincenthospital.com>.

South Middlesex Opportuity Council. 2017. SMOC. < www.smoc.org>.

- U.S. Department of Housing and Urban Development. (2012). Criteria and Recordkeeping Requirements for Definition of Homelessness. <www.hudexchange.info/resources/documents/Homeless Definition_RecordkeepingRequirementsandCriteria.pdf>.
- UMass Memorial Medical Center. 2017. UMass Memorial Health Care: Hospitals. www.umassmemorialhealthcare.org/umass-memorial-medical-center>.
- UMass Memorial Community HealthLink. 2017. UMass Memorial Community HealthLink. < http://www.communityhealthlink.org>.
- United States Census Bureau. (2016). American FactFinder. https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml>.
- United States Interagency Council on Homelessness. (June 2015). Opening Doors: Federal Strategic Plan to End Homelessness. <www.usich.gov/resources/uploads/asset_library/USICH_OpeningDoors_Amendm ent2015_FINAL.pdf>.
- United States Interagency Council on Homelessness. (March 2010). Supplemental Document to the Federal Strategic Plan to Prevent and End Homelessness: Ending Chronic Homelessness: Cost-Effective Opportunities for Interagency Collaboration.
- Veterans Inc. (2017). Veterans Inc. <www.veteransinc.org>.
- Wilkins, C. (2016). Partnering With Hospitals to End Homelessness [Memorandum]. Washington, DC: United States Interagency Council on Homelessness.
- Worcester Department of Health and Human Services. 2017. Health and Human Services. www.worcesterma.gov/hhs>.
- Zucchero, T. L., McDonnald, S., McInnes, D. K. (2016). "Walking in a maze": community providers' difficulties coordinating health care for homeless patients. BMC Health Services Research, 16:480.

Appendix A: Methodology cont.

The qualitative data collected from these interviews, meetings and additional research was compiled and analyzed by category. First divided into two categories, health service interviewees and social service interviewees. The distinction of which interview fell into which sector was determined by the type of agency the interviewee came from, not necessarily by the care they provide. For example, a social worker who works for a hospital would be categorized as health services despite the fact that much of the care they give their patients is related to social issues. The raw data from the two sectors was then split into the three categories, gaps and barriers of the current system, strengths and assets of the current system, and implications and solutions. Once divided into these categories, knowledge gained from these interviews was then disseminated to the paper and further research done on the topics that needed it. Interview subjects were determined based on knowledge of the research problem and were identified by either Katherine Calano, Homeless Projects Manager at the City of Worcester Department of Health and Human Services, Dr. Matilde Castiel, City of Worcester Commissioner of Health and Human Services, or by my advisor Ramon Borges-Mendez of Clark University. Ms. Calano, Dr. Castiel, and Professor Borges-Mendez are well-versed and experienced in the city's homelessness problem and have established connections that qualify them to aid in the identification of potential subjects. Once subjects were identified, I emailed them explaining the research and asked if they were interested in being interviewed. If the participant agreed, we met at a location of their discretion for a 30-minute interview and discussed their experience working with the homeless. Participation was completely voluntary, could be backed out of at any time and has been kept confidential.

Clark University Institutional Review Board approved this research February 1, 2017. Additional research of best practices and policies was done to create a reference for the City of Worcester to analyze further and implement at their discretion. Collaborative meetings involving many stakeholders regarding the hospitals' roles in homelessness and what we can do about it were also attended. Localized quantitative data from housing agencies, hospitals and government agencies was compiled in data tables/graphs/charts to show scale and to demonstrate the need for better collaboration amongst stakeholders. A majority of the data was collected as part of the annual Point in Time. These counts are conducted by Continuums of Care (CoCs), which are the local or regional entities of the Department of Housing and Urban Development that coordinate services and funding for homeless programming (National Alliance to End Homelessness, 2016).

Appendix B: Interview Questions

- 1. Tell me a little about yourself and your experience working with Worcester's homeless population.
- 2. I'm trying to conduct a needs analysis to identify both strengths and weaknesses at the intersection of homelessness and health care.

2a. As a practitioner in the field, what <u>strengths or assets</u> do you believe exist in the current system to provide health care to homeless individuals?

2b. What <u>gaps or barriers</u> do you believe exist in the current system to provide health care to homeless individuals?

- 3. From your experience, what would you say are the three largest systemic issues facing the homeless population in terms of health care and access to health care?
- 4. This project aims to recommend short-term and long-term solutions to improve Worcester's homeless service system as it relates to health care. Recommendations will be made to both social service agencies and to the medical sector. What system-wide solutions do you think need to be implemented, based on your own professional experience or knowledge of evidence-based practices from your field of expertise?

Appendix C	C: Interview	Reference
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INTERVIEW (PARTICPANTS)		DATE	POSITION(S)	AGENCY*
А	2	Jan. 31, 2017	Coordinators	Social Services
В	2	Feb. 1, 2017	Director and Supervisor of emergency shelter	Social Services
С	3	Feb. 1, 2017	Psychiatrist, Clinician, Nurse	Health Services
D	1	Feb. 2, 2017	Street Outreach Worker	Social Services
Е	1	Feb. 3, 2017	Director of Public Safety	Health Services
F	1	Feb. 7, 2017	Clinical Social Worker	Health Services
G	2	Feb. 14, 2017	Police Officers	Social Services
Н	8	Feb. 21, 2017	Social Workers and Care Coordinators	Health Services

***Social Services Agencies:** Agencies providing non-health related assistance, including emergency housing, to Worcester's homeless population.

(Veterans Inc., SMOC/GWHC,

*Health Services Agencies: Agencies providing direct medical care to Worcester's homeless population.

Appendix D: Additional Health Service Findings

Health Service Findings: Gaps

- From the more social work side of the health services, it was noted that there is a high burnout of social workers and case managers who typically get paid very little but have a very demanding and stressful job (Interview H).
- Social workers also noted that there are not enough behavioral and mental health services in the city, let alone for homeless individuals, and the stigma around these matters, as well as around homelessness and substance abuse is a huge barrier (Interview H).
- One health service representative noted that HIPAA, limits communication between doctors and agencies and limits the kind of care that can be provided (Interview H). The Health Insurance Portability and Accountability Act of 1996 (HIPAA), keeps individual's health information private.

Health Service Findings: Solutions

The solutions that were posed in these interviews came largely out of the discussion of gaps and barriers and spoke to ways in which we can address these gaps. From the health services side, solutions were primarily in three categories: what we can do directly for the homeless, establishing a systematic approach, and long-term changes.

In terms of what we can do directly for the homeless there were a few suggestions. Health providers recommended case management that would help with follow up, appointments and navigating the health system (Interview C), dental care for homeless (Interview H), and increased behavioral health services, as well as public education about mental illness, substance abuse, and homelessness in adults and children to reduce the stigma (Interview H). Seeing how many homeless individuals are not allowed to stay at the shelter during the day and end up on the streets vulnerable to a variety of things, it was suggested that we have some sort of programming in place that keeps them busy during the day, perhaps some sort of public works project (Interview H). A more systematic approach was recommended to identify those in need, find resources and then deliver those resources (Interview E). Within this new systematic approach, many individual recommendations were made, including better real-time communication (Interview C), shelter transportation available at all hours of the day (it was even suggested that perhaps a shelter van could be kept at the hospital-Interview E), a database of homeless individuals with situation, case managers, contacts etc. (Interview C), and more networking and learning of agencies and services (Interview F).

Structural, more long-term changes that were recommended varied greatly. Many agreed that Worcester needed more shelters and/or beds (Interviews C, E) and that shelter requirements needed to be more flexible (Interviews C, E). It was also noted that lots of money was wasted with the current system, and suggested that perhaps there might be a way to reallocate these funds upfront to solve the root problems (Interviews C, E). In order to fix

high turnover of social workers, social workers suggest some sort of additional support for social workers, such as additional training or education, or a means to destress (Interview H). Health providers saw substance abuse as one of the biggest issues with homeless individuals and recommend that we get those individuals sober, even to the point of incentivizing sobriety, such as requiring sobriety to receive government funding (Interview C).

Appendix E: Additional Social Service Findings

Social Service Findings: Gaps

- For homeless individuals many barriers present themselves that complicate health matters across the board, from living a healthy lifestyle from the beginning to receiving proper treatment and in recovery. Homeless individuals have had limited to no appropriate care, likely for long periods of time, which has led to new chronic health issues or exacerbated existing health issues (Interview A).
- Before even arriving at the hospital or health care center they must get there, this in itself poses issues for homeless individuals who don't have the money to pay for a cab or bus, and while ambulances are typically free, they are often accompanied by police, which can be a deterrent for many (Interview D).
- Homeless health care is reactive, not proactive. Many individuals don't want to go in and will only go in when they fear for their life (Interview D).
- Language and cultural barriers often complicate interactions between homeless patients and hospital staff. This includes barriers in terms of foreign language but also in terms of vocabulary, as one social service worker said, you can't use ten dollar words with homeless patients (Interview B). In terms of culture, with health care it is especially important to recognize that many cultures do not view health the same way the west does. Some cultures, for example, don't believe in mental health. Homeless individuals are reflective of Worcester's population, which is very multicultural, and medical care is somewhat lacking in understanding these cultural differences (Interview B).
- As brought up by the health services side, HIPAA limits communication between healthcare providers and homelessness agencies and the lack of a statewide record system in Massachusetts is making things only more difficult for all involved (Interviews B, G, H).

Social Service Findings: Strengths

- In agreement with the health service providers, social service providers recognized the extent to which CHL was a huge asset, HOAP in particular was noted for their provision of excellent, compassionate care (Interview D).
- In conjunction with HOAP's level of compassionate care, the free health clinics through churches and other volunteer groups were also noted as a strength in the provision of sympathetic health care free of charge that homeless patients feel they can access without judgement (Interview B).
- For social service agencies who have been able to navigate the health insurance field, MassHealth, the state level Medicaid and CHIP health insurance program, is considered a huge asset for homeless individuals (Interview A).
- The recent trainings through the Worcester Police Department in Crisis Intervention and the officers able to help in these special circumstances was also noted as a more

recent asset to the system, but it was also noted that they need to be more readily available (Interview B).

• Additionally, there is a wealth of different agencies working on the issue of homelessness in the city, which is a huge asset. Many of these agencies provide trainings to other agencies on topics regarding working with homeless individuals and navigating the system, which promotes collaboration and increases knowledge of the issue across the board (Interview G).

Social Service Findings: Solutions

As with the health service providers, the solutions that were posed in the social service interviews came largely out of the discussion of gaps and barriers and spoke to ways in which we can address those gaps. In terms of what we can do directly for the homeless, one of the most discussed topics was case management. Many agreed that we need case management not only for clinical services but for social services as well-- for the homeless to relearn daily skills such as washing dishes, laundry, et cetera (Interview A, G), something that the more social side of those working in health services agreed with (Interview H). Also recommended was the idea of having one case manager per person as well as the idea of peer support, where individuals who have experienced homelessness then come back and help others as case managers, therapists, or social workers (Interview A, agreed with by H). At the policing level, Worcester has been working on providing social services for those suffering from mental illness and substance abuse instead of putting them into the criminal justice system, this is something that is already beginning to happen, but is good to keep on the front burner as we continue to move forward (Interview G).

Adding on to what healthcare representatives suggested in terms of a systematic approach, the social services acknowledged that we needed more agency collaboration (Interview G) and suggested that we all work together to figure out the best care possible for homeless patients (Interview D). One worker suggested that we get everyone at the table to recognize that the system is broken—all hospitals and all agencies—then share experiences, understand different perspectives, look at both sides of the equation, and come up with a new approach (Interview D). Many providers agreed with this, especially for the need of having a system in which we have more fluid, seamless communication which would allow for enhanced provision of care (Interviews A, B, D)

In terms of hospital care there were many complaints about discriminatory care of homeless patients. Social services workers stated that homeless individuals deserve the same care as everyone else, need a fair and adequate assessment, treatment and discharge, and more than anything just need people to understand where they are coming from (Interview B). In order to address the issue of inappropriate discharge to shelters, shelter staff suggested that hospital staff come to see the shelter environment so they can understand where they are discharging their homeless patients (Interview D). It was also stated that the current health care given to homeless individual is operating out of a "cookie cutter system," but what is needed is specialized care, every patient is unique and their care needs to be as well

(Interview B). In brainstorming solutions to the gaps and barriers with the current system, one social service worker came up with the idea of a specialized team that deals with homeless patients in the emergency department, perhaps consisting of a doctor, nurse, social worker, and psychiatrist who know the homeless system very well and are trained and experienced with working with homeless patients, they called this idea the "Homeless Trauma Team" (Interview B). Social service representatives recommended that we offer trainings for hospital staff to take care of some of the issues mentioned above. They suggest trainings might cover topics such as understanding homelessness, working with homeless individuals, overcoming class differences, and understanding someone under the influence (Interview B).

As with those from the health services side, the structural, more long-term changes that were recommended varied greatly. Social service workers agreed that we need more shelters and more beds (Interview B, D), but we also need more affordable housing (Interview B, D) and the social services that come with that housing as outlined in the housing first model (Interview G). Workers also expressed that Worcester is in need of both medical respite beds (Interviews A, B, agreed with by H) and psychiatric beds (Interview A, agreed with by H). In order to catch the issue earlier on, it was emphasized that we need proactive health care for the homeless, with PCP (Interviews D, H) and dental work, (Interview H) as well as more free health clinics (Interview B). From the more social service work of the healthcare sector, it was suggested that we reach out to existing free clinics and see how we can help and even encourage more by promoting it as a community building activity (Interview H). In terms of policing, while CIT was praised for their recent work, social service workers would like to see more of them and to have them more readily available and easier to contact. One of the barriers for homeless individuals in the Worcester system is the amount of paperwork necessary, which often prevents them from accessing the services they need. It was recommended, based on a system in place in another city, that we create a one stop center--a centralized location to get all those necessary things (Interview G). As with the health service representatives, social services recognized the benefit of having a statewide medical records system, not only with knowing the medical history of each patient, but also in preventing extra narcotics from ending up on the street (Interview B). Just about all of the social service workers stated that more money would help to solve these issues (Interviews B, D, G) and many agreed with health services on the idea of dealing with the upfront cost to fix these issues, stating that we would later see a return on investment and even long-term savings (Interview D, agreed with by health services E, H). The role of grants and idea of utilizing these funds was also mentioned (Interview G). Social service workers recognize the big feat that changing this system is going to be and knew that in the long run we are going to need to see policy change to create lasting effects (Interview D).

Appendix F: Client A

"Client A is a middle-aged gentleman who has been homeless for more than a decade; living unsheltered in the city of Worcester. He engages in services and is well known throughout the community. In December 2016, SMOC was able to secure permanent supportive housing for Client A. Outreach case managers tried to locate the client to move him into his new residence. Client A was found on 12/12/16 at UMass where he had been admitted for respiratory issues. Social workers from UMass met with Client A, his SMOC social workers, members of the medical team at UMass providing treatment and Worcester Police CIT officers to discuss seamless discharge. In the discharge plan put in place 12/13/16, all contact numbers for SMOC social workers were listed as well as the instructions that regardless of time, we should be contacted prior to this patient being discharged so he could go from hospital to his home, rather than back out into the elements.

"On 12/15/16, Client A was discharged from UMass; and the discharge planning was not followed. The city of Worcester was bracing for a frigid snap, and overflow shelters were opened to encourage our chronically homeless population to come in from the elements. SMOC Outreach workers combed the city with the Worcester Police to find our vulnerable clients and get them to shelter as temperatures dropped to 10°F. Client A was found under a bridge, unable to stand and frozen to the ground after urinating on himself and it freezing him to the concrete. Client A was rushed to UMass with severe frostbite and necrosis on both of his feet up to the heel. Client A was again admitted to UMass, but discharged to the street just 2 days later and told to 'follow up with plastic surgery.'

"Client A was again on the streets when his case managers from SMOC found him with both feet literally black in color and necrotic skin sloughing off as he tried to walk. Client A was put into a temporary housing situation as SMOC advocated for his medical care. Upon calling UMass on 12/23/16 to inquire as to why this client was left untreated, we were informed by UMass that only a certain number of 'elective surgeries' are allowed by Medicaid each month. Client A was in severe pain and though he was brought to the emergency room on numerous occasions (12/23, 12/28, 01/03, 01/05) he was continuously discharged with his feet literally peeling off. On 01/12 he was informed that he now had gangrene in both legs from the necrotic tissue caused by the frostbite and exacerbated by the lack of treatment. Each time the client was seen, he was told to 'follow up with plastic surgery.' Pain medication was never prescribed, even as the man cried every time he tried to move.

"Finally, after significant pressure by SMOC, City of Worcester and St Vincent Hospital physicians, UMass admitted Client A for surgery and operated almost 4 full weeks after the injury. Due to the delay, the client had to have significant portions of both feet amputated and the infection had spread up his legs. This client is still hospitalized and fighting for his life."

- Interview D (February 10, 2017)

Appendix G: Collaboration and Communication for the City of Worcester

A targeted and strict meeting itinerary will need to be prepared ahead of time, perhaps by individuals at the City of Worcester. An initial meeting might need to occur in order to first recognize the system is broken, but also to share experiences and look at both sides of the equation and understand different point of view. From here perhaps we send individuals home to brainstorm ways in which we can improve collaboration, then reconvene a few days/weeks later and come up with a plan. Previous meetings that have attempted to work on these issues have somewhat failed because of their lack of ability to move past the gaps and barriers in the system and onto ways in which we can fix it. With this research being completed we now know the gaps and barriers in the system and should work towards ameliorating them. With a strict meeting itinerary, we will then need to come up with a means of improving collaboration, concreate and detailed plans on how we can create more seamless communication and a greater understanding of all the agencies at the table.