



Improving the Health of Those Experiencing Homelessness

A Review of Existing Literature and Analysis of Stakeholder Interviews

J U N E 2 0 1 7

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This study was conducted for the Minnesota Department of Human Services.

Contents

Contents	1
Executive summary.....	1
Purpose of this research	1
Which interventions have been proven to work?.....	1
Promising practices	2
Introduction.....	3
Methodology.....	3
Research limitations.....	4
What we know about the health of Minnesota’s homeless population.....	5
Homeless adults	5
Homeless children and youth.....	6
Learning from the research	7
Evidence-based interventions	9
Housing as an intervention.....	9
Housing and case management.....	16
Assertive Community Treatment (ACT)	18
Potential barriers to implementing evidence-based interventions	20
Promising practices	22
Care coordination.....	22
Co-located services	24
Medical respite.....	26
Potential barriers to implementing promising practices	28
Other promising practices found in the literature	28
Conclusion	31
References.....	33

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Executive summary

Homelessness and health – be that physical, mental, or chemical health – are cyclically and profoundly connected. Those experiencing homelessness tend to have poorer health outcomes than the general population and, in turn, poor health often prevents homeless individuals and families from finding housing or staying stably housed.

Purpose of this research

The Minnesota Department of Human Services (DHS) is currently examining ways to improve the health outcomes of those experiencing homelessness. To do this, they are searching for interventions that are effective at improving health outcomes in this population, and then trying to identify ways to support those initiatives.

In order to learn “what works” in improving the health of the homeless population, DHS asked Wilder Research to review existing literature for evidence-based and promising practices, and interview 20 stakeholders who work with homeless populations, either in health care settings or in housing or outreach programs; stakeholders were asked to discuss their experiences working with the homeless population and react to findings from the literature review.

Which interventions have been proven to work?

Wilder found several interventions that appear to improve health outcomes among those experiencing homelessness; those with the strongest evidence include housing, case management, and Assertive Community Treatment (ACT). There is a great deal of overlap between many of the interventions reviewed and combining multiple approaches, such as housing and case management, is likely the most effective way to improve health outcomes.

Housing

Multiple studies (e.g., Patterson et al., 2013; Larimer et al., 2009; Gulcur et al., 2003) illustrate that housing improves health outcomes among those experiencing homelessness. The two primary approaches to housing discussed in the literature are 1) Housing First, which is modeled on the concept that people need a place to live before attending to other needs, such as substance use, mental health, or employment, and 2) supportive housing, which generally offers residents a variety of support services designed to improve health and quality of life. Housing First *can* include supportive services, but it is not a requirement of that approach.

Case management

Case management looks at a whole person or family and attempts to address any issues that may hinder positive outcomes, such as finding and keeping housing. While Wilder did not find any studies that looked solely at the effect of case management on those experiencing homelessness, case management is embedded in a variety of interventions. It is often combined with supportive housing and has been shown in multiple studies to improve health outcomes (e.g., Stergiopoulos et al., 2015; Sadowski et al., 2009).

Assertive Community Treatment

One of the most prevalent interventions discussed in the literature is Assertive Community Treatment (ACT). ACT is an evidence-based, collaborative approach to working with people who have mental health issues. There are ACT models which focus on those also experiencing homelessness. A multidisciplinary team of providers works together to provide holistic care and treatment to those who need it. Several studies (e.g., Smelson et al., 2013; Cooper et al., 2010) have examined the impact of ACT and illustrated improvements to health outcomes, such as reduced psychiatric symptoms, greater access to housing, and reduced substance use relapse.

Promising practices

Few studies exist in which clinical interventions are implemented without the support of housing or case management. However, some promising approaches outline treatments that may improve the health of those experiencing homelessness, such as medical respite, care coordination, and co-located services (such as those offered by Health Care for the Homeless at emergency shelters and outreach sites). More information on these “promising practices” is located throughout the body of this report.

When asked what they thought Minnesota’s priorities should be, in terms of improving the health outcomes of the homeless population, most stakeholders (health care providers and social service provider alike) called for “more affordable housing,” particularly when paired with supportive services. The priority they put on these interventions, validated by the findings of the literature review, should provide DHS with a clear direction for their next steps. The results of this study strongly suggest that DHS make every attempt to fund and otherwise support Housing First models, as well as models using case management and Assertive Community Treatment, as these are the interventions that are most likely to improve the health of people experiencing homelessness.

Introduction

The Minnesota Department of Human Services (DHS) is currently examining ways to improve the health outcomes of at-risk populations who have the greatest health disparities and the highest provider and payer costs. To do this, they are searching for interventions that are effective at improving health outcomes in these populations, and then trying to identify ways to support those initiatives. The following report focuses specifically on the target population of those experiencing homelessness.

Methodology

In order to learn more about what has been proven to work in improving the health outcomes of this population, DHS consulted with Wilder Research to conduct a two-step research project. Both steps are described below.

Literature review

Wilder reviewed existing literature to find evidence-based and promising practices around improving the health outcomes for different groups of people experiencing homelessness (e.g., single adults, youth, and families). From September through December 2016, staff librarians searched databases, including PsychInfo, PubMed/Medline, and ESBSCO MegaFile, and topically related websites. For information on particular interventions, they searched websites such as SAHMSA’s National Registry of Evidence-based Programs and Practices, Social Programs that Work, and the CDC Registry of Effective Programs. Search terminology focused on key concepts including: homelessness; health promotion, status, or improvement; illness management; programs, strategies, or initiatives; and evidence, impact, or effectiveness. In addition, Wilder asked all project stakeholders to send articles or research they thought might be helpful to the project.

The review placed a strong emphasis on evidence-based program interventions, but also looked at promising practices where no evidence was available. While the definition of “evidence-based practices” varies depending on the field, common elements include: strong research design, such as a randomized controlled trial; statistically and practically significant findings; and outcome measures that have been established in the academic literature to “assess what they say they do” (Mattox and Kilburn, 2013). Promising practices are just that; they show promise, but may lack a rigorous research design and statistically significant findings.

Stakeholder interviews

Wilder was also tasked with conducting 20 telephone interviews with stakeholders who work with people experiencing homelessness, either in health care settings or in housing or outreach

programs. To help guide the focus of the literature review, 5 interviews were conducted with stakeholders before the literature review, while the remaining 15 were conducted after the literature review was complete. A total of 12 interviews were conducted with stakeholders who work in housing or outreach programs, and eight interviews were conducted with those who work in health care (Figure 1). Stakeholders also represent a mix of experience working in different regions of the state and with different age and cultural populations.

1. Characteristics of stakeholders

	N
Industry	
Housing	12
Health care	8
Geographic location	
Twin Cities metro area	10
Greater Minnesota	3
Suburban	3
Statewide	4

Respondents in the initial set of interviews were asked what they thought were the most effective solutions or interventions for improving health outcomes among the homeless population and if they knew of any research or literature that showed the effectiveness of such interventions. A primary finding from these interviews was that respondents identified housing as the most effective intervention for improving health outcomes among people experiencing homelessness. The second set of interviews focused on a different group of stakeholders’ reactions to findings from the literature review, specifically asking them about their opinions and experiences related to the top evidence-based interventions – housing, case management, and Assertive Community Treatment (ACT).

Research limitations

The primary goal of this project was to locate evidence-based and promising practices to illustrate which interventions are most supported by data. However, several issues should be noted: Many studies focus on specific diagnoses or populations, such as HIV or veterans. Studies also tend to focus around groups who have the poorest health. This may be because of more robust funding streams available for certain areas, or because it is easier to measure outcomes on a more tightly focused population or diagnosis. Another population for which Wilder was unable to find evidence-based literature was children and families. As cited below, however, we know that 35 percent of Minnesota’s homeless population are children living with their parents, so it is important to take this group into account when recommending interventions.

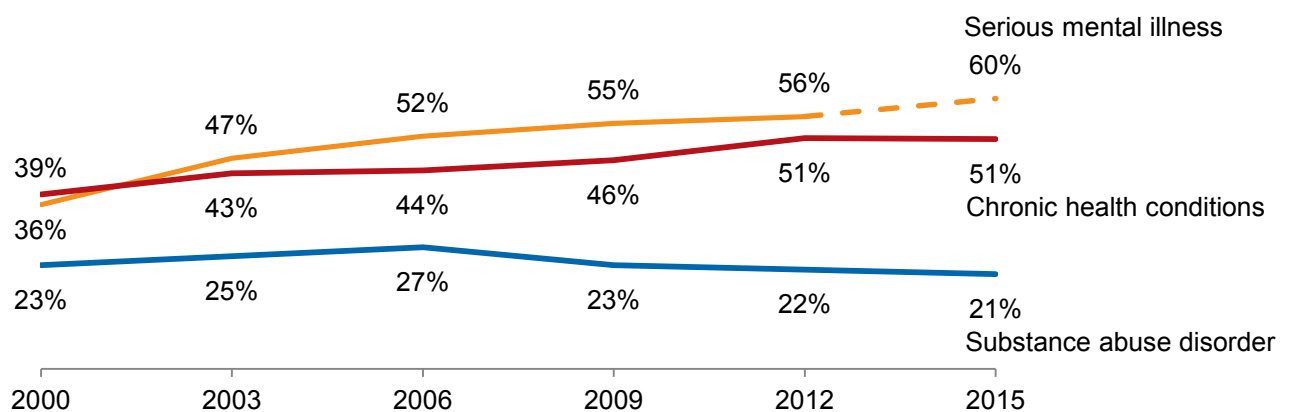
What we know about the health of Minnesota's homeless population

In October 2015, Wilder conducted its ninth annual study of homelessness in Minnesota. To help ground the findings described throughout this report, the following section provides recent data on the health of children, youth, and adults experiencing homelessness in Minnesota.

Homeless adults

More than half of homeless adults report a significant mental illness. This includes being diagnosed with at least one of the following: anxiety or panic disorder (42%); major depression (39%); bipolar disorder (22%); personality disorder, such as antisocial or obsessive compulsive disorders (15%); schizophrenia (7%); or other paranoid or delusional disorders (6%). Fifty-one percent of homeless adults have a chronic health condition, most commonly high blood pressure (30%), asthma (20%), other respiratory problems (12%), other heart or circulatory problems (11%), and diabetes (9%). One in five homeless adults has been diagnosed with a substance abuse disorder, including either alcohol abuse (16%) or drug abuse (14%) disorders. The rates of chronic health conditions and serious mental illness have increased since 2000, while the rate of substance abuse disorder has dropped since 2006 (Figure 2) (Wilder Research, 2016).

2. Prevalence of physical and chemical health issues and serious mental illness among homeless adults, 2000-2015



Note: Anxiety or panic disorder was added to the 2015 survey and was not included as a diagnosis in previous studies. For the serious mental illness trend line, this difference is represented by a dotted line from 2012 to 2015. If anxiety or panic disorder is not included, rates of serious mental illness are still higher than previous years (57% in 2015).

Source: 2015 Minnesota Homeless Study, Wilder Research.

For many, homelessness is the latest of a chain of adverse experiences that often begin in childhood. These experiences can include violence, abuse, and out-of-home placements. Nearly three-quarters of homeless adults had at least one of the adverse childhood experiences (ACEs) included in the 2015 survey. The most common was living with a substance abuser (50%), followed by witnessing abuse (47%) and being physically abused (39%) (Figure 3).

3. Selected adverse childhood experiences among homeless adults

	Percent
Lived with substance abuser as a child	50%
Witnessed abuse as a child	47%
Physically abused as a child	39%
Lived with parent/guardian with mental illness	37%
Out-of-home placements as a child	33%
Sexually abused as a child	25%
Neglected as a child	19%
During childhood, had a parent serve time in prison	18%
At least one of the above ACEs	74%

Source: 2015 Minnesota Homeless Study, Wilder Research.

By comparison, estimates of the lifetime prevalence of physical or sexual abuse in the U.S. range between 16 and 18 percent (Habetha, Bleich, Weidenhammer, & Feger, 2012).

Homeless children and youth

Of all age groups, children and youth age 24 and under are the most likely to be homeless in Minnesota. This includes children with their parents (35%) and youth (minors and young adults) on their own (16%). While the population of children experiencing homelessness with their parents decreased by 7 percent from 2012 to 2015, they still represent over one-third of the overall homeless population (Wilder Research, 2016).

Homeless children and youth face a variety of health concerns. Among parents whose children¹ were with them, 25 percent said that at least one of their children had an emotional or behavioral problem, and 12 percent had at least one child with a chronic or severe physical health problem (Wilder Research, 2016).

¹ Study information about children is based on questions that were asked of parents. Unless otherwise specified, percentages are frequencies of parents who report certain characteristics of a child or children who are with them (not percentages of children).

As with homeless adults, high proportions of homeless youth² have physical, mental, and chemical health problems. Over half (57%) have a serious mental illness, with anxiety (37%) and depression (32%) being the most common. Thirty-six percent have a chronic physical health condition, and 13 percent have been told by a medical professional within the past two years that they have a drug abuse disorder or an alcohol abuse disorder (Wilder Research, 2016).

A large majority of homeless youth (89%) had at least one adverse childhood experience, the most common of which were living with a substance abuser (61%), witnessing abuse (60%), and living in an out-of-home placement (54%) (Figure 4). While female youth have higher rates of nearly all of these experiences, they are especially more likely to have been victims of sexual abuse (38% vs. 19% for male youth).

4. Selected adverse childhood experiences among homeless youth

	Female youth	Male youth	All youth
Lived with substance abuser as a child	63%	59%	61%
Witnessed abuse as a child	63%	57%	60%
Out-of-home placements as a child	52%	58%	54%
Lived with parent/guardian with mental illness	50%	45%	48%
During childhood, had a parent serve time in prison	48%	47%	47%
Physically abused as a child	49%	42%	46%
Sexually abused as a child	38%	19%	30%
Neglected as a child	30%	27%	29%
At least one of the above ACEs	88%	91%	89%

Source: 2015 Minnesota Homeless Study, Wilder Research.

Learning from the research

Over the years the Minnesota Homeless Study has been conducted, Wilder has seen measurable increases in the level of distress among those experiencing homelessness. For instance, we have consistently asked about five serious challenges that may impact an individual’s ability to keep stable housing: serious mental illness, chronic physical health problems, traumatic brain injury, chemical dependency, and recent history of incarceration. In 2003, 77 percent of adults had at least one of these five barriers. In 2015, 83 percent had at least one of these barriers (Wilder Research, 2016). Homelessness and poor health are cyclically connected: we know that those experiencing homelessness have poorer health than the general population, but it is also clear that poor health outcomes can prevent individuals and families from finding housing or staying stably housed.

² “Youth” refers to minors (age 17 and under) and young adults (18 through 24) who are homeless and on their own.

Study results also show a lack of affordable housing in Minnesota; 41 percent of homeless adults are currently on a waiting list for subsidized housing, with an average wait time of nearly a year. An additional 14 percent report they are unable to get on a waiting list because those lists are closed. A general rule for housing affordability, especially for lower-income households, is that housing should cost no more than 30 percent of monthly income. At the time of the 2015 Minnesota Homeless Study, fair market rent determined annually by the federal government was \$796 per month for a one-bedroom apartment in the Twin Cities and \$558 per month in greater Minnesota. Both exceed the \$550 median monthly income among homeless adults (Wilder Research, 2016).

This context is important to remember as DHS moves forward in its work to improve the health outcomes of those experiencing homelessness.

Evidence-based interventions

While we know that those experiencing homelessness often have complex and co-occurring physical, mental, and chemical health issues, the research also shows that there are interventions that can improve the health outcomes of this population. The following section highlights those interventions that have the strongest evidence of positive health outcomes: housing, individualized case management, and Assertive Community Treatment (ACT). Findings come from both the literature review and stakeholder interviews, particularly the 15 stakeholders who were interviewed after the literature review was complete.

At the beginning of the interview, Wilder asked stakeholders how much professional experience they have with each intervention. Stakeholders were most likely to say that they had a lot of experience with providing housing and individualized case management; four had a lot of experience with ACT (Figure 5).

5. Stakeholder experience with evidence-based interventions

N=15	A lot of experience	Some experience	No experience
Providing housing to the homeless population	12	2	1
Individualized case management	12	1	2
Assertive Community Treatment (ACT)	4	2	9

Many stakeholders talked about the three evidence-based interventions together, as opposed to discussing their experiences with each separately. Eleven out of 15 said they had clearly seen the positive effects of at least one intervention; the remainder either did not have enough experience to comment or said that it is difficult to judge the long-term benefits, since a client may go through the system quickly and follow-up is often difficult with this population.

Housing as an intervention

The literature suggests overwhelmingly that housing is one of the most direct paths to improved health among people experiencing homelessness. In particular, providing housing is a key component to improving quality of life, which takes into consideration a variety of overall health measures. Several authors also noted a decrease in the number of hospitalizations after acquiring housing (Culhane, Metraux, & Hadley, 2002; Gulcur, Stefancic, Shinn, Tsemberis, Fischer, 2003; Wright, Vartanian, Li, Royal, Matson, 2016). The two main approaches to housing in the literature are 1) Housing First, an approach that seeks to first provide housing and then to address other potential issues, and 2) supportive housing, which generally offers residents a variety of

support services designed to improve health and quality of life. Stakeholders echoed the importance of housing to improving health.

[Does housing have an impact on people's health?] Definitely. Just the stability of having an address and having a place to safely keep medication, a place to receive mail, a place of security in terms of being able to lock your door at night and not afraid of being robbed or assaulted. These were often people who slept outside, so even the reduction in exposure to the elements, overall the general trend was that being housed improved health conditions. – Housing expert

Housing is the foundation for everything. It's hard to go to school or have a job or attend to self-care since you're consistently in survival mode and figuring out where you're going to sleep that night. [Housing] provides a foundation for people...so they can start to take care of themselves and move forward. – Housing expert

One of the things we know is that our health is determined by much more than medical care. The actual medical care we get – seeing a doctor, getting medication – is probably 20% of our health. Social determinants, environment, and access to good food, that's key. – Health care expert

Stakeholders also note that housing makes it possible for people to access services and supports that improve their health.

If a client doesn't have a stable place to stay, we're at the mercy of seeing if we can find them. Whereas if they have a place to go, we can build consistency; it's easier to get a phone, a mailbox; there are more avenues to communicate with them. – Health care expert

Housing First model

In our review of the literature, the most notable intervention related to housing and health is the Housing First approach, developed by Sam Tsemberis. According to the National Alliance to End Homelessness, Housing First programs should include certain key elements, directly cited below (http://www.endhomelessness.org/pages/housing_first):

- A focus on helping individuals and families access and sustain permanent rental housing as quickly as possible;
- A variety of services delivered to promote housing stability and individual well-being on an as-needed and entirely voluntary basis; and
- A standard lease agreement to housing – as opposed to mandated therapy or services compliance.

While variation exists between individual programs, these tenets should remain in place. The approach is guided by the premise that people need housing in order to further pursue other goals such as sobriety, employment, or attending to other mental or physical health issues. Another critical component, and one that frequently differentiates Housing First from other types of supportive housing programs, is that individuals are not required to complete any treatment or programming prior to entrance into Housing First. It should be noted that the Housing First

approach is often, but *not* always included in supportive housing programs. Some supportive housing programs have defined criteria, such as current sobriety, that must be followed in order to enter their programs. Housing First does not mandate sobriety upon program entry and emphasizes the need for no barriers for people to access safe and secure housing.

One of the stakeholders interviewed, a mental health provider, gave an example of how housing can keep a mentally ill person stable.

In a 2013 study, Patterson et al. (2013) looked at homeless adults living with mental illness and how Housing First impacted their quality of life. The study revealed that, when compared with treatment as usual (no housing or support provided), Housing First led to improved quality of life; the differences were most significant in participants' safety and living situation. Patterson notes that the key component leading to positive outcomes in this case is the quality of the housing – for example, quality housing leads people to feel safer which may provide a foundation towards improved mental health.

One study compared two housing approaches and their effect on reducing homelessness and psychiatric hospitalizations for those with mental illness. The two approaches were Housing First (the experimental group, n=99) and other Continuum of Care programs (the control group, n=126), with the key difference being their approach to abstinence (Gulcur et al., 2003). As discussed above, Housing First is utilized widely and focuses primarily on addressing a person's immediate needs; it does not require that residents maintain sobriety. Conversely, sobriety and psychiatric treatment were prerequisites for housing through the other Continuum of Care approach studied by Gulcur et al. It should also be noted that supportive services were provided to those in the Housing First program by a multi-disciplinary Assertive Community Treatment (ACT) team.

Participants in the study (N=225) were recruited from either the street or a psychiatric hospital and were then randomized into the experimental or control group. Data from the study show that those who were randomly assigned to Housing First were housed earlier and “spent significantly less time homeless and in psychiatric hospitals, and incurred fewer costs than controls” (Gulcur et al., 2003, p. 171). Housing First participants also spent fewer days hospitalized than the control group over the length of the study (24 months). Additionally, in looking specifically at the recruitment source – street versus hospital – those who were recruited to the study from a psychiatric hospital (n=68), regardless of intervention, incurred more costs than those who were recruited from the street.

Much of the literature focused on the success of stabilizing participants by providing housing, without the requirement of sobriety at program entry. By addressing the basic need for housing, people experiencing multiple issues (such as mental health and chemical dependency) can emerge from their day-to-day survival strategies, and begin to address their health concerns. The data

appear to show that requiring sobriety in order to enter housing programs does not necessarily guarantee more positive health outcomes.

A study of chronically homeless individuals with severe alcohol use found evidence that Housing First decreased health care costs among the study population and also reduced alcohol use among participants, even though there were no sobriety requirements in the program (Larimer et al., 2009). Outcomes were more positive the longer participants stayed in housing. Larimer et al. (2009) used a quasi-experimental design that compared 95 housed participants (where drinking was permitted) with 39 wait-list control participants in Seattle, Washington. Researchers looked at the use and cost of services, between the study and control groups, and also examined changes in participant-reported alcohol use. Findings showed that, in the year before the study, intervention participants (n=95) accrued a median cost of \$4,066 per person, per month. At six months after entering housing, these costs dropped to \$1,492 and then dropped again to \$958 at 12 months (Larimer et al., 2009). Data also showed that “there [was] a significant difference between HF [Housing First] and control groups in total costs, with HF participants accruing approximately 53% less costs compared with controls over the first 6 months of the study” (Larimer et al., 2009, p. 1353). In addition, participants reported drinking less. Prior to being housed, the study group reported consuming a median of 15.7 drinks per day, compared to 14.0 at six months, 12.5 at nine months, and 10.6 at 12 months (Larimer et al., 2009).

Tsemberis, Gulcur, & Nakae (2004) also looked at the impact of required sobriety on chemical health outcomes, noting:

“[Results are] contrary to the fears of many providers and policymakers [in that] housing consumers without requiring sobriety as a precondition did not increase the use of alcohol or drugs among the experimental group compared with the control group. Providing housing first may motivate consumers to address their addictions to keep their housing, so that providing housing before treatment, may better initiate and sustain the recovery process” (p. 655).

In other words, while it might seem that a program requiring sobriety would be more likely to reduce substance use in program participants, this is not necessarily the case. The data show that meeting the immediate housing needs of those with substance use issues is just as effective, if not more effective, than a program that requires sobriety. Key informants interviewed supported this approach:

I mentioned the shortage of beds and the ability to get people in to detox or the respite beds ... they're hard to come by. One thing I remember was people going in from the street to detox and they would get anywhere from 3-5 days in detox but then there was nowhere for them to go after that. They would show up back on the street. Of course, when you're back on the street and back to where you used to drink or use drugs and you feel hopeless because you're back where you started, you would start to drink or use again. That's where you hear about people in and out of detox 50 or 100 times in their life. . – Housing expert

Supportive housing

Supportive housing in Minnesota exists in two primary forms – time-limited transitional housing and permanent (not time-limited) supportive housing. Supportive housing provides a pathway out of street homelessness and emergency shelters and into more stable and supportive living arrangements. Supportive housing programs provide an array of services intended to build hope, opportunity, and capacity among those who are served. Supports often include case management and a variety of other services and supports.

A number of studies show supportive housing leads to positive health-related outcomes for people experiencing homelessness. In one case study, researchers examined self-reported survey data and Medicaid claims data for homeless individuals who had moved into supportive housing at Bud Clark Commons in Portland, Oregon between 2010 and 2014 (Wright et al., 2016). It should be noted that Bud Clark Commons is also a Housing First facility. The sample size for this study was 98 participants; however, Medicaid data was only available for 58 participants. Participants, who were identified as “highly medically vulnerable people facing significant medical and psychosocial challenges,” were provided with a range of services designed to address both physical and mental health, as well as substance dependence (Wright et al., 2016, p. 21). From the year before to the year after participants’ move-in dates, there was “a significant reduction in per member per month of coverage costs, from \$1,626 to \$899” (Wright et al., 2016, p. 23). In other words, participants using Medicaid “saw an average annual reduction in Medicaid expenditures of \$8,724” (Wright et al., 2016, p. 23). From the year before to the year after move-in, participants also reported reduced emergency department visits and hospitalizations, as well as improved access to care and better primary care connections (Wright et al., 2016).

For people who are homeless and have severe mental illness, a 2002 study was able to quantify the extent of service use both before and after placement in supportive housing. The population for the study was 4,679 people placed in New York City supportive housing between 1989 and 1997; the study sample was merged with available administrative data on the use of public shelters, public and private hospitals, and correctional facilities, and data were compared to a series of matched control groups of those who were homeless but who had not been placed in housing (Culhane et al., 2002). Overall, the study found that those who were placed in supportive housing were more likely than those who had *not* been placed in such housing, to have reduced shelter use and hospitalizations, as well as less time per stay in the hospital and shorter periods of incarceration (Culhane et al., 2002). The study also estimated the cost savings of this reduced service use and found that placing homeless individuals with severe mental illness into supportive housing amounted to “a reduction in services use of \$16,281 per housing unit per year” (Culhane et al., 2002, p. 107); although, it should be noted that this assumes year-round occupancy. The study also reports a “per *placement* per year” (rather than per *housing unit* per year) savings of \$13,570 (Culhane et al., 2002).

Figure 6 provides more detail on the reductions or increases associated with each service provider. Aside from outpatient services with Medicaid, all service providers saw a cost reduction for those who were placed in supportive housing. The service provider who saw the greatest cost reduction was the Office of Mental Health. In total, annual service use was reduced by nearly \$59 million (Culhane et al., 2002) (Figure 6).

6. Annualized cost reductions per placement and per housing unit, and total NY/NY housing units (N=3,615), by service type

Service Provider	Annualized Cost Reductions per Placement	Annualized Cost Reductions per Housing Unit	Total Cost Reduction by NY/NY Units
Department of Homeless Services	\$ 2,819	\$ 3,779	\$ 13,660,436
Office of Mental Health	\$ 6,162	\$ 8,260	\$ 29,860,094
Health and Hospitals Corporation	\$ 1,321	\$ 1,771	\$ 6,401,361
Medicaid (inpatient)	\$ 2,825	\$ 3,787	\$ 13,689,511
Medicaid (outpatient)	\$ (1,982)	\$ (2,657)	\$ (9,604,464)
Veterans Affairs	\$ 444	\$ 595	\$ 2,151,555
Department of Corrections (state)	\$ 312	\$ 418	\$ 1,511,903
Department of Corrections (city)	\$ 245	\$ 328	\$ 1,187,232
Total	\$ 12,146	\$ 16,281	\$ 58,857,628

Note: In 1999 dollars. Totals reflect rounding.

Source: Culhane et al., 2002, p. 137.

An evaluation of the Minnesota Supportive Housing and Managed Care Pilot, led by Hearth Connection, also shows the benefits of supportive housing to the health of those experiencing homelessness. The evaluation, conducted by the National Center on Family Homelessness, consisted of four studies (both qualitative and quantitative) intended to provide a snapshot of the experiences of homeless single adults and families in urban (Ramsey county) and rural (Blue Earth county) Minnesota. Findings showed that, after 18 months, pilot participants “had significantly improved residential stability, experienced fewer mental health symptoms, and use of alcohol and/or drugs declined as well. Participants also reported a greater sense of safety and improved quality of life” (The National Center on Family Homelessness, 2009, p. 4). However, participants did *not* show improved physical health after 18 months, although this may be because participants had chronic health conditions, such as asthma or diabetes, that take longer to show measureable improvement (The National Center on Family Homelessness, 2009). The cost study from this evaluation shows that, relative to a comparison group, participants’ mainstream service costs did not change substantially after being in the pilot. However, the *reasons* for costs varied between pilot participants and the comparison group. For example, the pilot helped single adults move away from inpatient mental health and chemical dependency services, detox, and prison, towards

routine and preventative care. This finding was echoed in the qualitative study where participants discussed their medical issues prior to enrollment, and then described how these problems were identified and addressed by service teams (The National Center on Family Homelessness, 2009).

Supportive housing has also been used as an intervention in condition- and population-specific studies. These studies do not necessarily cite a specific model, but show that housing, regardless of the model, can lead to more positive health outcomes. Buchanan (2009) writes that people who are homeless and HIV-positive who were randomized into housing through the Chicago Housing for Health Partnership experienced improved health. Health improvements were based on epidemiological standards and were determined by intact immunity and viral loads – this meant a CD4 count (an indicator of immune system functioning) of greater than or equal to 200 and a viral load (amount of HIV in a blood sample) of less than 10,000. This study used Housing First as a framework. Housing sites used in placements for the intervention group varied, which suggests that, in this particular case, the exact housing model matters less than simply having stable or non-shelter-based housing. Study results indicated that 55 percent of patients in the intervention group had intact immunity (according to CD4 and viral load measures) as compared with 34 percent of patients in the usual care group.

In another study of people who are homeless with HIV, supportive housing again proved beneficial for their health (Schwarcz et al., 2009). The Direct Access to Housing program employed for this study is similar to Housing First in that residents pay rent on a sliding scale and there are supportive services available on-site, such as case managers and clinicians. Schwarcz discovered that the provision of housing – regardless of model – resulted in a higher survival rate for people experiencing homelessness who have HIV. In her study using the San Francisco AIDS registry, Schwarcz notes that 67 percent of people experiencing homelessness survived five years after diagnosis as compared with 81 percent of those who were housed (Schwarcz et al., 2009).

Finally, a 2015 study conducted by Brown et al. (2015), showed that older adults (50 years and older) had fewer depressive symptoms after they had found housing. This study was conducted over 12 months with a cohort of 250 older homeless adults living in Boston shelters. Researchers looked at housing status at follow-up, number of emergency department visits and hospitalizations, as well as changes in geriatric conditions between baseline and follow-up, including depressive symptoms as assessed by the Patient Health Questionnaire (PHQ-9). At 12-month follow-up, older adults who had gained housing had fewer depressive symptoms than those who were still homeless. In addition, they had “obtained housing had a lower rate of acute care use, with an adjusted annualized rate of acute care visits of 2.5 per year,” compared to 5.3 per year for those who remained homeless (Brown et al., 2015, p. 1482). Housing, however, was not associated with improvement in other geriatric conditions being measured (such as the ability to perform daily activities or incontinence), nor was there any change in substance use problems (Brown et al., 2015). This could be a critical area of concern as social service and health care providers attempt to treat a growing population of older adults who are homeless.

Housing and case management

Because housing provision and case management are two of the most commonly used approaches to serving people who are homeless, it is unsurprising that many studies or programs combine these two components in order to provide the most effective service possible. Both studies referenced here utilized the Housing First approach combined with traditional case management (connecting clients with needed services). Individualized case management is also mentioned as a service provided in tandem with other interventions, such as ACT. Nearly all stakeholders interviewed had experience with case management and felt positively toward the intervention. Many stakeholders talked about how housing, by itself, cannot meet the complex needs of the individuals they serve.

We need more housing with the right services around it. We know that just creating a building and expecting the homeless population will rush to move in and transition well and be successful there – that's not necessarily how it's going to work. You need to have the right supportive services in place. People don't become homeless for no reason, there are lots of issues that come with it. And people need support to figure out how to be successful in that environment. – Health care expert

I think a barrier is the system is not robust enough to provide the supports they need when they are housed. They're abandoned out there. They maybe see a social worker once a month. They haven't overcome their substance abuse and they're hanging around the same company that got them to where they are in the first place, those things are still in their lives. I think that's what makes homelessness chronic. – Health care expert

What is important is having those wraparound services – so tailoring those services to an individual's need. That can include targeted case management but it also includes what's referred to as tenancy support services – helping understand how do you live in an apartment, how do you get along with your neighbors, how do you interact with your landlord, what are your responsibilities as a tenant, and just other support services that are a little harder to categorize. – Housing expert

Every youth that comes into our program is immediately case managed...The important thing to note is that our services are designed to address the cultural needs of American Indian youth, so that makes us unique...We work with youth on education to finding employment, working with money management, budgeting, and all kinds of life skills. – Housing expert

Sadowski, Kee, VanderWeele, & Buchanan (2009) write that, over a period of 18 months, the combination of housing and case management was effective in reducing hospitalizations by 29 percent and emergency department visits by 24 percent, attributing its success to three key factors:

- Linkage between the medical system and case management program (thereby facilitating coordinated services across settings)
- Recognition of the “heterogeneity” of the population through tailored support services that meet the specific needs of each individual
- Collaboration in the form of “a city-wide consortium of clinicians, social workers, and housing and other advocacy groups, which facilitated a comprehensive and coordinated effort

to obtain case management and housing for every intervention participant” (Sadowski et al., 2009, p.1777).

These findings come from a randomized controlled trial conducted by Sadowski et al. at a public teaching hospital and private, nonprofit hospital in Chicago, Illinois. The population for this study was 407 homeless adults with chronic illnesses. A “usual care group” received standard services and discharge procedures after hospitalization. The study group, however, received an intervention that was developed by a “consortium of 14 hospitals, respite care centers, and housing agencies in Chicago” and included three integrated components (Sadowski et al., 2009, p.1773):

- Transitional housing at medical respite care centers
- Placement in stable housing
- Case management, which was provided at each site and was intended to facilitate discharge planning as well as coordination of medical care and referrals to substance abuse and mental health treatment. Case managers also met weekly to coordinate services according to needs of participants.

While findings showed that the intervention group had fewer hospitalizations and emergency department visits than the usual care group, the results showed “no significant mortality difference between groups.” In both groups, however, there was improvement in quality of life from baseline, including physical functioning and mental health (Sadowski et al., 2009).

Stergiopoulos et al. (2015) conducted a similar randomized controlled trial that also employed a case management approach in concert with Housing First. Using three measures – physical and mental health, social functioning and quality of life, and health service use – the authors determined that the combination of Housing First and intensive case management was effective in improving “housing stability, probability of hospitalization, community functioning, and a reduction in number of days experiencing problems due to and money spent on alcohol use” (Stergiopoulos et al., 2015, p. 14). In this study, case management included services geared towards the participant’s individual goals. This study is unique in that it examines potential differences in outcomes or reactions to an intervention based on an ethnically diverse sample of participants. However, the authors determined that none of the health-related outcomes examined “showed differential treatment outcomes by racialized ethnicity” (Stergiopoulos et al., 2015, p. 15).

Assertive Community Treatment (ACT)

One of the most prevalent models in the literature is Assertive Community Treatment (ACT), an evidence-based approach to working with people with mental illness. This review focuses on ACT interventions that work with people who are also experiencing homelessness. ACT strives to provide holistic treatment through collaboration between providers.

The key features of ACT are treatment, rehabilitation, and support services. ACT is strongly supported by evidence and has been used widely since its development in the 1960s (National Alliance on Mental Illness; nd). Phillips (2001) describes the ideal ACT team as such:

Although the number of members may vary, the operating principle of the team is that it must be large enough to include representatives from the required disciplines and to provide coverage seven days a week, yet small enough so that each member is familiar with all the consumers served by the team. A staff-to-consumer ratio of one to ten is recommended, although teams that serve populations that have particularly intensive needs may find that a lower ratio is necessary initially. As the consumer population stabilizes, a higher ratio can be tolerated. A lower ratio may be appropriate in rural areas where considerable distances must be covered. (p. 772)

As mentioned in the beginning of this section, only six stakeholders had experience with ACT; however, those who did had generally positive experiences with the model, but they also expressed the need to pair ACT with other interventions, such as housing and case management.

As part of the ACT model, we're providing case management and our team specializes in homelessness. A lot of our clients come into the program with severe mental health issues...When we meet a client, sometimes we spend time getting basic needs met first, before addressing mental health; or we do both at the same time...All of those things [housing, food, mental health services] are incorporated into one, which is why I like the ACT model...We do a lot of partnering. Sometimes we take the lead, but we partner with [clients]; we don't do it for them. The focus is to develop skills and confidence to do these things on their own. – Health care expert

All the folks I've worked with in my experience have been either chronically homeless or long-term homeless – both individuals and families. I think with [the homeless] population, housing has a greater impact on health because...One of the weaknesses of the ACT model is the fact that they have robust services, but normally don't have any direct connection to housing. – Housing expert

It's really all about supportive housing and, as a part of that, individualized case management is a key. The ACT part of that is that elements are used in our model of ACT because it's all about multidisciplinary treatment and using a full treatment team to intervene on individual cases. So every individual would have an individualized treatment plan. We'll use various team members to work on that individualized plan. I think they all go together and they all have important elements to success. – Housing expert

One stakeholder noted how the intensive ACT services combined with housing can lead to greater stability in people with mental illness.

I think we have to look at affordable safe housing for both families and individuals with mental illnesses and we have to keep investing in mental health services, both preventive and deep end services because before many of our ACT clients get to us, they have been involved in corrections and all sorts of other things. Lots of hospitalizations. All things that are very expensive. And then they get to the ACT team and suddenly we realized, this person has been stably housed for 5 years and they haven't been hospitalized! Prior to that, they were living on the streets or in the hospital every other week. – Health care expert

Wilder found a few studies that outlined the positive outcomes related to ACT; however, it is likely that there are more research available. Cooper et al. (2010) examined the effect of Integrated Assertive Community Treatment (I-ACT) on psychiatric symptoms, drug use, housing status, and service utilization. I-ACT employs the main characteristics of ACT with key components of integrated treatment, such as “assertive outreach, motivational enhancement, stage-wise approaches, counseling/support, and long-term and comprehensive interventions” (Cooper et al., 2010, p. 156). The intervention employed in Cooper et al.’s study included a team with “mental health and substance abuse training as well as expertise in housing, vocational rehabilitation, outreach, and peer support” (p. 156). With an emphasis on a team approach to coordination, this responsibility was shared across team members and settings. Cooper et al. noted improved symptoms across a variety of measures, including reduced psychiatric symptoms, greater access to housing, a decrease in mental health service utilization, reduced substance use relapse, and lower illegal drug usage. Results from the study represented a decrease in costs associated with the treatment of health problems for people who are homeless.

Another study, conducted by Smelson et al. (2013), evaluated a program designed specifically for veterans, called Maintaining Independence and Sobriety through Systems Integration, Outreach, and Networking (MISSION). MISSION is comprised of four components, including ACT (Smelson et al., 2013, p. 163):

- Integrated mental health and substance use disorder treatment
- Assertive Community Treatment using Critical Time Intervention (CTI)
- Peer support
- Vocational support

The program’s intended (and actual) outcomes are similar to others included in this review: to reduce hospitalization, engage with treatment(s), and improve mental and behavioral health. Services are delivered by a case manager and “peer specialist team.” Smelson et al. (2013) found that MISSION participants showed reduction in substance use and improvements in mental health.

Potential barriers to implementing evidence-based interventions

In the stakeholder interviews, Wilder asked respondents about the barriers they might expect in implementing these interventions. The most common response was that there is simply a lack of affordable housing; eight out of 15 stakeholders mentioned this as a barrier.

The second most common response options were: clients being denied housing because of their criminal background (4 stakeholders). All four of the stakeholders in Greater Minnesota mentioned this population in some part of the interview. One person said a criminal history is the biggest barrier. Others said the following:

I think a significant barrier is criminal history. Some people we work with, their mental illness is a barrier. Their symptoms might be exacerbated in living situations. Buildings that look like a hospital or a jail. We see a lot of places like that. We might think, well it's a roof over your head, but to some people it might trigger memories. If you think about trauma informed care, that comes up a lot.
– Health care expert

Even in the world of corrections, if we know where people are, and we're doing a good job supporting and supervising them, they're less likely to recommit a crime than if we don't know where they're living, and they can't find a place and they're desperate – that's when they do commit a crime. So we push them into crime. – Health care expert

[Housing navigators] are working with a member to create and document housing history for instance, which is required – every place you apply will verify if you meet the homeless definition according to state definition. They're working on expunging an eviction record. They're pounding the pavement to figure out what landlords might have affordable housing for people who don't qualify for subsidies or GRH [Group Residential Housing] or don't want GRH. People who have specific requirements related to where they live. We are finding landlords we can negotiate with to overlook felony charges. – Health care expert

Stakeholders also mentioned a lack of client engagement in or willingness to accept services, usually because of their mistrust for the systems in which they are involved (4 stakeholders).

People with disabilities can't afford market rate housing so they need vouchers and there are not enough vouchers to go around. And even with market rate housing there's not enough affordable housing for people working a minimum wage job. And then there's always the mainstream property managers don't want to go near people who have felonies or who've had bad credit or an eviction history. – Housing expert

I think that the biggest barrier now...is the lack of affordable housing. The housing market is so tight. And, as far as case management goes, it's the time it takes to provide case management to someone, particularly if you're going to work with the needs they're identifying. It takes a good investment of time...nobody pays for that, and if you can't get it paid for you can't get more staff and you don't have the time to serve people well. – Health care expert

A few stakeholders also mentioned that these barriers can be compounded for specific cultural groups. For example, American Indian communities may already have a deep-seeded mistrust of the health care and homeless systems, and may need culturally specific programming.

One of the reasons why we're still seeing such disparities among American Indians who are homeless is because there just isn't enough opportunities for our youth to heal and to have a place to reestablish a renewed sense of identity and who they are as a young native person. Without that they are not going to be as successful as they could be in terms of finishing school and finding a job and all that... The positive impact we see comes from embracing our children in that foundation first and foremost. From there, we see these kids move in mainstream directions more easily.
–Housing and social service expert

There is a longstanding cultural distrust of the medical community. Sometimes people in the non-native community don't understand the importance of history within that community...If you are going to try and reach out to the Native homeless population through mainstream medical services, that's a barrier that has to be overcome. – Housing expert

Families doubling up with other families in overcrowded housing may put some communities at higher risk for health-related issues. As one respondent noted, this is true for some Southeast Asian community members. Although some are living in overcrowded situations, they may not meet the formal federal definition of homelessness and thus are ineligible for many housing programs and other services that serve homeless families.

Southeast Asian community members often live with family members, making them ineligible for traditional services and supports (including housing assistance). – Health care expert

Young adults were also mentioned as a group that needs non-traditional services.

I think I would encourage the legislators to understand that between the ages of 18-24 we have some severe problems and this is where we're seeing kids fail and fall through the cracks. We have all these wonderful resources up until they're 17 and the minute they turn 18, everything changes for them. And that's not helpful. They've been in TLPs [Transitional Living Programs] already. I think if there was a focus on that age group – that's our children who are losing that opportunity to lead to successful adulthood. It's that age range where they're falling.)
– Housing expert

As DHS moves forward in its work, each of these items, particularly availability of affordable housing, will need to be considered.

Promising practices

In addition to looking at evidence-based practices, Wilder also reviewed promising practices, meaning models or interventions that appear to have a positive impact on outcomes (either through preliminary research or anecdotal evidence), but that lack rigorous research and statistically significant findings to back them up. It should be noted that few studies exist in which clinical interventions are implemented without the support of housing or case management. However, some promising approaches outline treatments that may improve the health of those experiencing homelessness.

The following section discusses some of the promising practices found throughout the literature, as well as stakeholder reactions to these practices. Again, Wilder asked stakeholders how much professional experience they have with each intervention; although, it should be noted that stakeholders were only asked about the three most prevalent promising practices found in the literature review: care coordination, co-located services, and medical respite. Most stakeholders had at least some experience with care coordination and co-located services; however, experience with medical respite was less common (Figure 7).

7. Stakeholder experience with promising practices

N=13-14*	A lot of experience	Some experience	No experience
Care coordination between health care and social service providers	7	5	1
Co-located services, such as medical services offered in a shelter	7	4	2
Medical respite	2	3	9

*Two respondents did not fully answer this question, because their interviews were running long and they ran out of time.

Care coordination

Though many definitions of care coordination exist, it is at its core a patient-centered model designed to improve service delivery and outcomes. The National Health Care for the Homeless Council (NHCHC) identified five common elements across definitions:

- Numerous participants are involved in the care coordination process
- Coordination is necessary when clinicians are dependent upon one another to carry out different patient care activities

- Clinicians must have adequate knowledge about their own and others' roles and available resources
- Clinicians rely on exchange of information to manage all patient care activities
- Integration of care activities has the goal of facilitating appropriate delivery of health care services (NHCHC, 2016, p. 2)

In order to address unmet health needs of adults in poverty, including people who are homeless, Hennepin County implemented a care coordination system intended to increase “engagement by the health care delivery system with patients and enrolled members and facilitate stronger connections among health care and social services programs” (Burt et al., 2014, p. 135). Community health workers focused on intensive outreach and coaching to improve health outcomes of their patients; in some cases, this meant providing transportation to pharmacies or identifying high-need health care consumers and ensuring appropriate care.

Beyond health care, the model also uses housing navigators and vocational support to coordinate between social workers and community health workers to provide housing (ranging from emergency housing to permanent supportive housing) for people who are homeless and who have significant health needs. This partnership across clinics and social services offers program participants a full-service approach that shows promise in alleviating health problems for people who are homeless.

In 2015, Hennepin Health funded an initiative focused on care coordination for high risk people experiencing homelessness in Hennepin County. Besides care coordination, Hennepin Health placed community paramedics at the Salvation Army Harbor Light shelter during evening and night hours, with the goal of meeting residents' basic health needs onsite, rather than having them transported to an emergency department for medical care. An evaluation of the initiative looked at Hennepin Health enrollment and claims data for patients who had used the new community paramedic service. An unpublished report summary sent to Wilder Research, showed that there were 116 patients enrolled in Hennepin Health for at least three months prior to and following their initial encounter with a community paramedic. Data further showed that costs per patient per month decreased between pre- and post-intervention; total inpatient costs decreased by 34 percent (\$371.71 to \$246.19) and emergency department costs decreased by 17 percent (\$501.23 to \$416.10). Again, this study is unpublished and lacks the rigor of a randomized controlled trial, but appears to show promise with its findings.

Most stakeholders had experience with care coordination and felt that patients likely have positive outcomes when systems coordinate with each other. However, a couple also mentioned the difficulty in communicating across systems, including differing personalities and ideas of how the work should be done; the message being that it is important for care coordinators to be

“on the same page” when working together to improve the health of the homeless population. This type of coordination can be beneficial to health care payers.

[Care coordination] helps the people we see but it's also an aid for the health system because these people may end up not getting care they need and have to go to the hospital...For the health system it's beneficial because it's a more appropriate use of services. And we have a good relationship with the shelter and the folks that run it. – Health care expert

Sometimes we have meetings with [other providers] if [a patient] is in a treatment program. We just communicate with each other...With the county it's a formal partnership. Other providers it's not quite so formal...Most of the time [there is a positive impact]...homeless people are using fewer crisis services. – Health care expert

We're seeing much better outcomes having a truly integrated organization...I believe strongly in integrating housing and human services and also with health. I think that's what's emerging in our field. It's imperative we work across systems better. People don't care what you call your silos of service, they care that they get the service they need. We have to get better at working across systems. People don't come in little buckets, they end up across systems and we have to reflect what they need by adjusting the system, not making people adjust to us. – Housing expert

I think [care coordination] has potential for being helpful but, in our case, the care coordinators did not have enough education about homelessness and the difference in the way you need to provide health care to people who are homeless. It's promising, but it didn't pan out as we'd hoped. – Housing expert

Stakeholders also mentioned that it may be important for care coordinators to have specialized training or experience in identifying and working with people experiencing housing instability and homelessness.

[The care coordinators] worked with the general population, so they probably all had homeless people on their caseloads but weren't necessarily experienced in how to serve them best as compared to folks who were not homeless. I think that one of the specific problems we ran into was that at a place like [large health system] there are hundreds of care coordinators. Our participants were spread amongst all of those people. So, it was difficult to help them to learn what they needed to know in working with us and with homeless clients. In the future, if we do something similar, I would like to be able to have participants in the supportive housing program assigned to a smaller group of care coordinators so that they could get better educated about how this all works. – Housing expert

Co-located services

A primary example of “co-located services” is Health Care for the Homeless, a federally funded program provided in locations throughout the U.S. In Minnesota, Health Care for the Homeless provides services in several shelters in Hennepin and Ramsey Counties. Although the literature review did not find specific evidence of the outcomes of this approach, providing shelter-based services reduces barriers to access and provides individualized care by medical staff experienced in providing health care to persons experiencing homelessness.

Stakeholders confirm the impact of these types of services on the health of people in shelters.

The nurses are critical; our nurse runs a wellness program. I think of one [client] who was obese; I think he's lost 100 pounds and reduced his alcohol consumption by 90% and his diabetes went from uncontrolled to back to where it's almost normal. Those are the things that are amazing, and it's because of the attention from the nurse when they're in a housing situation. – Housing expert

Boston's Health Care for the Homeless program comprises much more than service or care delivery (policy development, for example), though it also holds as part of its charter the provision of health care to people who are homeless. The program counts among its accomplishments "widespread insurance coverage, increased access to disability entitlements, [and] consistent provision of preventive services" (O'Connell et al., 2010, p. 1406).

Another example of co-located services can be found in a study of oral health by DiMarco et al. Though less-discussed than many of the most commonly reported ailments, people experiencing homelessness often suffer disproportionately from poor oral health. DiMarco, Ludington, & Menke (2010) write that 80 percent of all dental decay occurs in low-income, homeless, and/or minority families; these populations also face more barriers to accessing oral health care.

The authors surveyed families receiving shelter-based clinic oral interventions and identified several predictors of oral health problems, chief among them being mental health issues. DiMarco et al. (2010) suggest that even simple interventions offer promise, noting that "providing a name, telephone number, and free phone for calling a dentist increases dental care access" (p. 78) as well as potential collaborations with other health care providers serving people who are homeless. Many Health Care for the Homeless programs also treat oral health conditions.

Like care coordination, most stakeholders had experience with co-located services. All of those who were familiar with co-located or on-site services has positive things to say about clients' health outcomes. Primarily, they cited the convenience that such services provide to those experiencing homelessness.

What we've learned about our folks is that the more convenient [services] are, the more likely they are to go. We have dropped people off at a clinic and they don't walk in. We know that...providing gentle reminders that they have an appointment right here on site works. – Housing expert

A lot of our providers do have co-located services so drop-in centers will have primary care available...You're always farther ahead if you can provide primary care services. – Housing expert

Stakeholders also talked about co-located services as an antidote to the barrier of mistrust in doctors or clinics; when health care services are located at a shelter, it can feel less scary for clients than having to travel to a different building. In addition, the providers on-site tend to understand the needs of the homeless population better than at standard clinics.

The shelter here in Duluth brings medical people in on occasion. It really makes sense. It especially makes sense if there's someone in the building that they trust and know that will hold their hand when they go into see that medical person. – Housing expert

A lot of our youth will go to ER; they don't have consistent primary care. It can also be scary going to a regular doctor. There's a lot of barriers to that. So having Health Care for the Homeless on-site has been so beautiful, because our youth are more likely to go get seen...and are less apt to pop in for ER visits. The other critical point is you have to have staff that are sensitive to the needs of homeless youth and how to work with them. So Health Care for the Homeless also provides that – they are more able to work with this population because they understand them. – Housing expert

Medical respite

Medical respite care acts as a bridge between hospital care and housing needed to recover from illness or injury. Without these types of services or programs, persons experiencing homelessness are discharged to shelters or to the street without supports to help them recover. Medical respite can be offered in a variety of settings, including “freestanding facilities, homeless shelters, nursing homes, and transitional housing” (National Health Care for the Homeless Council (NHCHC), 2016). According to the National Health Care for the Homeless Council:

Medical respite care is acute and post-acute medical care for homeless persons who are too ill or frail to recover from a physical illness or injury on the streets but are not ill enough to be in a hospital. Unlike “respite” for caregivers, “medical respite” is short-term residential care that allows homeless individuals the opportunity to rest in a safe environment while accessing medical care and other supportive services. Medical respite care is offered in a variety of settings including freestanding facilities, homeless shelters, nursing homes, and transitional housing (2016, p. 3).

Hospital to Home, a program that seeks to reduce costs and better serve patients with complex medical needs, engages participants with “a person-centered, multidisciplinary Mobile Community Health Services Team that provides individually tailored care based on participant needs and preferences” (Dillon, 2016, p. 1). The team is responsible for either providing direct care or coordinating services, such as health care, housing, and employment services.

A 2011 study of the Hospital to Home program, conducted by Wilder Research for Guild Incorporated, revealed positive impacts in the form of lower usage of emergency rooms and improved housing stability (all participants moved into stable housing within four months of program enrollment; emergency room visits decreased by 74%). By analyzing data of a small group of clients (n=7) from the Minnesota Department of Human Services along with data from nonprofit organizations Guild Incorporated and Hearth Connection, Wilder Research determined that program participants visited the emergency room less often and were less likely to visit for an acute illness than they were prior to program enrollment.

Currently, Wilder Research is also working with Hennepin County Medical Center to interview those who use, as well as those who could potentially use, medical respite. Wilder is also interviewing service providers who refer the homeless population for respite services. The goal of this work is to identify what is working well in the current medical respite model, and where there are gaps in capacity to serve this population. This work is being led by a Medical Respite Task Force, which has also done a great deal of work thinking about and researching medical respite in Minnesota and nationally. In 2016, members of the task force conducted a literature review to learn more about other medical respite models and the outcomes associated with receiving respite care. Unfortunately, there is not a lot of published evidence that medical respite improves the health outcomes of those who are homeless. However, early evaluation findings and anecdotal evidence from the Medical Respite Task Force suggest that medical respite is a promising practice.

Shelter-based care offers the convenience and potential efficacy of on-site health care for people experiencing homelessness. One study found that convalescent care provided at a shelter in Ottawa, coupled with social services assistance (such as connecting patients with needed resources or transportation for medical appointments), allowed for more direct access to health care. Podymow, Turnbull, Tadic, & Muckle (2006), examined data on those who stayed in a 20-bed shelter-based unit that provided up to three months stay post hospital discharge, “or for treatment of addictions or for those too ill to remain in the general shelter” (p. 379). Specifically, researchers looked at patients’ demographics, their reason for admission, and health outcomes. The study sample was 140 men who had been admitted between July 2000 and April 2003. Findings showed that during admission, 89 percent of the study population received transportation to appointments, 60 percent applied for housing, and 24 percent obtained housing. The authors state:

This model provided timely management of alcohol and drug addictions as opposed to wait listing for treatment programs and potentially missing an opportunity for detoxification. Psychiatric illness was addressed and treated in many patients in the [Special Care Unit], and regular attendance of a psychiatric nurse practitioner in the shelter allowed continuity of care and the development of a therapeutic alliance. Primary care was provided, and primary care physicians were found or prior care maintained to allow continuity of care post discharge from the SCU. Compliance to medication in the SCU was comparable to that achieved in the general population (p. 382).

As mentioned above, fewer stakeholders (n=5) have experience with medical respite than with other promising practices. Four out of the five stakeholders who had experience, had positive experiences with the intervention, saying that it offered much needed space for patients to heal after a medical procedure or a safe place to stabilize so that they can focus on improving their physical, mental, or chemical health. One stakeholder felt that, while it is a good idea, medical respite needs more long-term follow-up, stating: “Essentially, we put [patients] in a living situation that was unattainable in the long term. We have them in the dream apartment, but then have to tell them that it’s only good for 90 days. It feels a little inhumane...” Other stakeholders said:

Most people coming out of the hospital can be sent home and have in-home nursing or some sort of step-down facility or service, but you can't get those on the street or in shelters. So [medical respite homes] were helpful in providing that place for them to go after hospitalization to help stabilize them. Ideally, give time for discharge to housing to a group home or something that wouldn't put them back out on the street or in a shelter. – Housing expert

I think with medical respite – a homeless person gets sick and ends up in the hospital and it might be the first time in a long time that they've had good sleep and nutrition and maybe been sober. So it really gives people time to think clearly about where they're going and what they're doing so it's a prime intervention time for people to take the next step to get more secure housing or maintain sobriety or focus on their health. – Health care expert

Potential barriers to implementing promising practices

Stakeholders identified several barriers to implementing the promising practices discussed above. The most common barrier had to do with systems-level logistics, such as making sure health care providers have the proper insurance and certification and coordinating paperwork across systems; five stakeholders mentioned this type of barrier. Three stakeholders said that there were a lack of medical respite beds or space at shelters to accommodate the needs of the population, and two stakeholders each identified the following barriers: a lack of culturally responsive services; difficulty in obtaining or coordinating data across systems; and health care providers not understanding the nature of homelessness.

Other promising practices found in the literature

In addition to the promising practices above, Wilder found the following promising practices in the literature; however, in order to keep the stakeholder interviews focused and under one hour, these practices were excluded from the interview questions. They also have fewer studies available to support illustrate their promise.

Health engagement

In a randomized controlled trial with veterans who are homeless, O'Toole, Johnson, Borgia, & Rose (2015) investigated the effect of a three-pronged approach to clinical care on levels of access to health care. Participants were randomized into four groups, and each experienced a different combination of the three “arms” of the study:

- **Group one – Participant health assessment and brief intervention only:** Participants were interviewed by a nurse using Motivational Interviewing and were asked questions about past medical history (including mental health), chronic medical conditions, high risk behaviors,

smoking history, living arrangement, financial burdens, previous incarcerations, substance abuse, and prescribed medications.

- **Group two – Clinic orientation only:** Participants were introduced to the clinic team and shown where they would need to go to check in and informed about additional resources available at the clinic.
- **Group three – Participant health assessment and brief intervention coupled with clinic orientation**
- **Group four – Usual care**

During the clinic orientation, participants were introduced to various team members relevant to their care and given information regarding what to expect from clinic services and appointments. This intervention was coupled with a health assessment for those in group three (the most effective intervention or combination of interventions); this meeting covered medical history as well as self-identified needs and included a brief examination.

O’Toole et al. discovered that participants in the group that experienced the most robust intervention (health assessment, brief intervention, and clinic orientation) more quickly accessed a primary care physician in the weeks after baseline, and were more motivated to seek out primary care. These findings suggest that effective engagement can occur through a “tailored outreach process” that supports health-seeking behavior (O’Toole et al., 2015, p. 889) and that increased access to and use of primary care may ultimately lead to improvements in health and a decrease in cost of services provided (although those outcomes – improved health and reduced costs – were not examined in this study).

Compensated Work Therapy (CWT)

In his study with veterans who are homeless and substance-dependent, Kashner, Rosenheck, Campinell, & Suris (2002) discovered that Compensated Work Therapy, which provides employment while requiring certain health behaviors (such as sobriety) and has performance expectations (reliability, punctuality, productivity, etc.), was effective in reducing substance abuse. Participants in the CWT program experienced a 45 percent reduction in alcohol and drug use and a 64 percent reduction in substance-use related physical symptoms. Results of the randomized controlled trial indicated that participants also accessed addiction service at higher rates than the control group for the study. Further, individuals in CWT program experienced improvements in overall health and quality of life.

Community Reinforcement Approach (CRA)

A treatment employed with youth who are homeless for the purpose of improving physical and mental health also proved effective in engaging youth with positive health behaviors. The Community Reinforcement Approach (CRA) used by Slesnick, Prestopnik, Meyers, & Glassman (2007) is guided by two sessions – the first was designed to “establish rapport and to provide a clear rationale for the CRA approach” while the second “focused on a tentative treatment plan developed in active collaboration between the therapist and youth” (p. 5).

Youth clients were empowered to identify the areas of their life that they felt needed most attention (such as housing, health care, mental health treatment, or employment) as part of the intervention, while the control group was offered treatment as usual through the drop-in center. Slesnick et al. (2007) indicate that youth who participated in CRA showed improvement in several domains, including a reduction in substance use (by 37%, as compared with 17% for the treatment-as-usual group), and depression (40% versus 23%), and an increase in social stability (58% versus 13%).

Healthy Living Project

For people who are homeless and living with HIV, effective interventions are critical. Rotheram-Borus, Desmond, Comulda, Arnold, & Johnson (2009) found promising results from implementation of the Healthy Living Project, in which counselors work one-on-one with clients during 90-minute sessions. This intervention includes three modules in progression:

- **Coping** addressed ways to cope with problems in health behaviors, access of health services, and negotiation of challenging inter-personal situations.
- **Act Safe** took place between the 5- and 10-month assessments and focused on reducing risky sexual acts and substance use.
- **Stay Healthy** focused on maintaining healthful behaviors and improving the quality of life. (Rotheram-Borus et al., 2009 p. 3)

Upon completion of the program (after 15 months), participants had reduced the number of their risky sexual acts, a key outcome for the study. Additionally, those receiving the Healthy Living Project intervention reduced their drug and alcohol use.

Conclusion

There is limited research about which interventions are effective in improving the health of people experiencing homelessness. There are even fewer evidence-based programs or practices that are based on a strong research design such as randomized control trials or a matched comparison group. However, of the research that has been conducted and published, those with the strongest evidence include housing, case management, and Assertive Community Treatment (ACT). Housing First models, when combined with services such as case management or Assertive Community Treatment, have been shown to lower the substance use of chemically dependent populations, reduce inpatient psychiatric hospitalizations of people with mental illness, and reduce hospitalizations and improve primary care in populations with mental illness and other chronic conditions. Providing housing to those experiencing homelessness appears to help them to address their basic needs so that individuals and families can then turn their attention to secondary concerns, like health.

Some research is also being done to find out whether innovative health care services such as medical respite, care coordination, and co-located services are effective at improving the health of people experiencing homelessness. However, with only the literature available today, the effectiveness of these approaches are primarily anecdotal; we do not yet know the effectiveness of these approaches compared to business as usual

Stakeholders who had experience with these promising practices described positive outcomes for participants. However, they also noted barriers, such as a lack of affordable housing and medical respite beds in our state, restrictions to housing and services placed on clients because of their criminal background, and mistrust between the homeless population and medical providers. A handful of stakeholders also discussed systems-level logistics, such as making sure health care providers have the proper insurance and certification, a lack of culturally responsive services available to clients, and difficulty accessing or coordinating client-level data, especially across systems. Because these innovations have been identified by multiple experts, both in Minnesota and nationally, studies with a strong research design are needed that can test in what ways (and with what populations) they may or may not improve outcomes for people experiencing homelessness.

Finally, a recently-changed political landscape poses a large barrier to expanding interventions for those experiencing homelessness. A proposal for the replacement of the Affordable Care Act, circulated by the GOP in late February, shows a plan that may “cut \$1.3 billion next year from

[Minnesota’s Medicaid program].”³ After the Affordable Care Act was passed, Minnesota expanded coverage under Medicaid; this expansion included coverage for low income adults. The new federal healthcare proposal “would end that expansion and reduce overall spending by providing states with a fixed annual amount per recipient...”⁴

Improving the health outcomes of people experiencing homelessness is critically important, whether that means improved mental health, getting treatment for a specific diagnosis, more clinic visits with a primary care physician, or reduced hospital stays. Improved health can provide greater well-being and dignity to this underserved population and, ultimately, benefit our society as a whole. The Minnesota Legislature supports the goal of improving health outcomes for the most vulnerable as it charged DHS with improving the health of people experiencing the worst health disparities.

When asked what they thought Minnesota’s priorities should be, in terms of improving the health outcomes of the homeless population, most stakeholders (health care providers and social service provider alike) called for “more affordable housing,” particularly when paired with supportive services. The priority they put on these interventions, validated by the findings of the literature review, should provide DHS with a clear direction for their next steps. The results of this study strongly suggest that DHS make every attempt to fund and otherwise support Housing First models, as well as models using case management and Assertive Community Treatment, as these are the interventions that are most likely to improve the health of people experiencing homelessness.

³ APNewsBreak: GOP health plan could cost Minnesota billions. https://www.washingtonpost.com/national/health-science/apnewsbreak-minnesota-fears-costs-of-gop-health-care-plan/2017/03/02/d77ba784-f889-11e6-9b78-824ccab94435_story.html?utm_term=.7ba3fa63721d

⁴ Ibid.

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