Managing Complex Comorbidities in Individuals Experiencing Homelessness

A Summary of Interviews from the Field

National Health Care for the Homeless Council
June 2012

NATIONAL
HEALTH CARE
for the
HOMELESS
COUNCIL

DISCLAIMER

This publication was made possible by grant number U30CS09746 from the Health Resources & Services Administration, Bureau of Primary Health Care. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Health Resources & Services Administration.

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Suggested citation: National Health Care for the Homeless Council (June 2012). *Managing Complex Comorbidities in Individuals Experiencing Homelessness: A Summary of Interviews from the Field.* [Author: Molly Meinbresse, Program & Research Specialist.] Nashville, TN: Available at: www.nhchc.org.

ACKNOWLEDGEMENTS

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INTRODUCTION

Chronic conditions, such as asthma, diabetes and hypertension, are common diagnoses with individuals who are homeless (Levitt, 2009; Zlotnick, 2008). Treating chronic conditions can be very challenging for patients who are homeless and their providers because of the barriers to health care services and self-management resources that these patients experience (Bonin, 2010; Zerger, 2002). Chronic disease management is further complicated with the presence of comorbid conditions—as homeless health care clinicians reported that serving patients with complex comorbidities was their most pressing challenge (National Health Care for the Homeless Council, 2010).

LITERATURE REVIEW

Prevalence
A review of the literature reveals a major gap in estimates on the overall prevalence of comorbidities in the homeless population. Much of the literature on comorbidities in individuals who are homeless focuses on dual diagnosis, the combination of a psychological disorder and a substance abuse disorder, or is focused on a specific disease and its related comorbid conditions. Results from the Collaborative Initiative to Help End Chronic Homelessness study estimate the prevalence of dual diagnosis to be 52% among individuals who are homeless (Foster, 2010). The authors stated that participants had chronic illnesses as well but exact prevalence rates of these additional comorbidities were not provided.

A 2008 study from Goldstein, with veterans experiencing homelessness, provides much more detail on the specific combinations of multiple conditions from a predetermined list of 13 conditions. The top comorbidities were as follows (with the first condition being the diagnosis of reference and percent of participants with the specified comorbidities in parentheses):
1. Drug abuse + alcohol abuse (78%) = of those participants diagnosed with drug abuse, 78% were also diagnosed with alcohol abuse
2. Tuberculosis + alcohol abuse (73%)
3. Hepatic + alcohol abuse (71%)
4. Heart/cardiovascular + hypertension (70%)
5. Tuberculosis + drug abuse (68%)
6. Gastrointestinal + alcohol abuse (66%)
7. Gastrointestinal + orthopedic (65%)
8. Hepatic + drug abuse, orthopedic + alcohol abuse, alcohol abuse + drug abuse (63%)

Orthopedic issues, alcohol abuse and drug abuse were all very likely to be comorbid with another condition. Although not all of the conditions measured in this study were chronic, the data are still useful in that they provide a clear description of the comorbidities seen within a subpopulation of individuals who are homeless.

Comorbidity data in the general U.S. population is much more accessible. Based on the 2006 Medical Expenditure Panel Survey data, it is estimated that 28% of individuals in the U.S. have multiple chronic conditions (Anderson, 2010). Multiple studies have shown that the prevalence of multiple chronic conditions (MCC) increase with age. In fact, the Centers for Medicare and Medicaid Services (CMS) found that 67% of fee-for-service Medicare beneficiaries, who were over 65 years old or under 65 but received disability, had MCC in 2008 (Anderson, 2010; CMS, 2011; Fortin, 2005).

Prevalence rates will vary within each study depending on the method used to measure MCC. It is important to note that a simple count of conditions is not as good of a predictor of health outcomes as a

model that considers the severity of the chronic conditions and their interactions with other conditions. Nor does that technique lend itself to detailed data on specific disease combinations. Scales that have been validated and are reliable in measuring MCC include the Cumulative Illness Rating Scale, Charlson Index, Index of Coexisting Disease, or the Kaplan Index (deGroot, 2003).

Management
McGuire (2011) found that veterans who were homeless were more likely to have poor mental health and quality of life outcomes if they were dually diagnosed. Morse (2006) compared the health outcomes and costs of 3 programs on dually diagnosed individuals who were homeless—Integrated Assertive Community Treatment (IACT), Assertive Community Treatment Only (ACTO), and standard of care (the control group). The authors found that participants in the treatment groups were significantly more satisfied and experienced more days in stable housing than their counterparts in the control group. The authors recommended that care teams be integrated and include full-time substance abuse counselors; program administrators should incorporate additional intervention strategies to improve care, such as "supportive housing arrangements, psychotropic medications, contingency management, and community reinforcement approach" for addressing substance abuse. Refer to the aforementioned Collaborative Initiative to Help End Chronic Homelessness study for a description of health care delivery strategies that service providers used to address dual diagnoses and the challenges involved in that process (Foster, 2010).

Rosenheck (2003) supports the benefits of integrated care teams and community partnerships in delivering care to individuals who are homeless and dually diagnosed through the Access to Community Care and Effective Services and Supports (ACCESS) project. Perceptions of integrated care teams within the ACCESS project and other agencies outside of the ACCESS project proved important, as receipt of psychiatric services and the index of service integration were higher in accordance with positive perceptions. Overall findings support the idea that program effectiveness, in both integrated teams and interagency approaches, is associated with communication, cooperation, and trust among providers.

The potential for adaptation of the Chronic Care Model in the treatment of MCC was mentioned in the literature but no studies actually tested the effectiveness of this model on MCC in the general population or with those who are homeless. Nevertheless, there is a study that has tested the Chronic Care Model and its effectiveness in improving health outcomes for non-comorbid chronic conditions with veterans who were homeless. O'Toole (2010) studied the impact of a Homeless-Oriented Primary Care Clinic within the Veterans Affairs (VA) system—based on the Health Care for the Homeless model and Chronic Care Model—on hypertension, diabetes, and hyperlipidemia compared to standard services within the Veteran Affairs system (control). Health outcomes improved for all 3 chronic conditions over the 12-month study period for the intervention group and more so than those in the control group.

Given the findings reported above and the increasing focus on multiple chronic conditions, the Robert Wood Johnson Foundation developed the following policy recommendations for addressing MCC (Druss, 2011):
- Expanding insurance
- Supporting improved communication between medical and mental health providers
- Including mental health services in medical homes
- Developing new financing methods
- Building a trained workforce
- Prioritizing prevention

FIELD INTERVIEW RESULTS

In an effort to initiate this exploration of current health care delivery strategies, the Clinicians' Network interviewed 4 HCH projects regarding their managements of complex comorbidities. Clinical and administrative teams from the following sites were interviewed:

- Mercy Medical Center (Springfield, MA) – The Mercy Medical HCH Program is a subcontractor for the Springfield Public Health Department. It has been providing health care to the homeless population for almost 30 years and has been a 330(h) grantee for almost 25 years. Mercy Medical serves a mixture of both urban and rural populations at 1 fixed clinic, 10 shelter clinics, and 10 other clinic spaces as well as through home visits and street outreach.

- Peak Vista Community Health Centers (Colorado Springs, CO) – The Peak Vista HCH project is part of the Peak Vista Community Health Center. It has been providing health care to the homeless population for over 25 years and has been a 330(h) grantee for over 20 years. Peak Vista serves a mostly urban population in 1 shelter clinic and 1 mobile unit as well as through street outreach.

- Outside In (Portland, OR) – The Outside In HCH project is part of a Community Health Center and a larger social service organization for homeless youth. It has been providing health care to the homeless youth population for 45 years and has been a 330(h) grantee for over 10 years. Outside In serves a completely urban population in 2 fixed clinics, 4 mobile units, 4 other clinic spaces, and 20 client homes as well as through street outreach.

- Franklin Primary Care (Mobile, AL) – The H.E. Savage Memorial Center HCH project is part of the Franklin Primary Care Community Health Center. It has been providing health care to the homeless population for 20 years and has been a 330(h) grantee for just over 10 years. H.E. Savage serves an urban population in 1 fixed clinic site and 2 day service centers for adults.

In general, most of the sites appear to be short-staffed. Primary care providers are present (i.e. physicians, physician assistants and nurse practitioners), but there is a lack in social workers, mental health professionals, substance abuse counselors and case managers. Additionally, none of the sites had Certified Peer Specialists or care advocates.

While all four participating sites provide basic primary services to adults and children, two of the four are somewhat unequipped to provide a full spectrum of clinical services, including mental health services, substance abuse services, case management, housing, advanced labs, imaging, and diagnostics. Mercy Medical and Outside In were exceptions to this in that they both had more mental health, substance abuse and case management services available than Peak Vista or H.E. Savage. All of the sites provide psychiatry services; however, psychology, mental health professional and counseling services were lacking.

All of the sites provide substance abuse assessments and individual counseling, but Outside In was the only site to provide a buprenorphine program and complementary and alternative therapies. Detox (including medically supervised detox) services were referred to outside agencies by all the sites, except for Outside In which provides them by subcontract. Half of the sites provided a full range of case management services, including health insurance benefits enrollment, disability benefits application, assessments for social service needs, short-term case management, intensive case management, and housing case management.

We asked sites if they actively identified patients with complex comorbidities and to describe how complex comorbidities were defined if they responded positively. Even though all of the sites reported that they did in fact identify these patients, there was not a consistent way of doing this across the sites. Mercy Medical identifies patients during weekly staff meetings and the clinical team decides on a case-by-case basis. Peak Vista conducts an internal query using measures required for reporting for UDS (Uniform Data System). Staff document conditions based on billing codes addressed during a visit but only the first 4 codes can be entered so some inevitably are left out and not documented. Peak Vista is trying to develop a protocol to avoid this problem and collect more accurate data that reflects their patient population. Outside In identifies patients with complex comorbidities through chart audits of housing and medical interviews, diabetes and pain management registries, and care manager programs. These patients are defined as those with advanced medical, psychosocial and developmental challenges that interfere with their abilities to advocate for their care and needs. H.E. Savage also conducts chart audits and includes a problem list on the front of each patient's chart that is reviewed by the nurse (note: they do not have EMR).

We then asked sites to estimate what the top 5 most challenging complex comorbidities existed at their sites. This turned out to be a complicated question in that most the sites did not track this type of data. Additionally, conditions are often documented using billing codes and some projects are limited in the number of conditions that can be documented in one visit.

Top cluster of complex comorbidities reported for each site:
- Mercy Medical – Mental health, substance abuse, tobacco abuse
- Peak Vista – Chronic pain, mental health, tobacco
- Outside In – COPD, mental health, chronic liver disease, substance abuse, tobacco use, dental issues
- H.E. Savage of Franklin Primary – Diabetes, mental health, cardiovascular disease

Mental health issues were included in the top combination of comorbidities for all sites. The other most commonly reported chronic conditions reported were: substance abuse, cardiovascular disease, diabetes, chronic pain, chronic kidney disease, chronic liver disease and obesity.

When asked about models of care to guide practice management for complex comorbidities, all of the sites reported using the Patient-Centered Medical Home model, or the Primary Care Home Model, and 3 of the 4 sites reported using the Chronic Care Model. The sites were then asked about clinical decision support guidelines as standards of care for managing individuals with complex comorbidities. None of the guidelines reported appeared to be tailored to individuals with comorbidities. For example, Mercy Medical uses state and national guidelines for chronic conditions, such as the National Heart Lung and Blood Institute (NHLBI) asthma and hypertension guidelines. Outside In uses the Kryptic Care Management Program for diabetes care.

Sites were also asked about specific evidenced-based practices for supporting the management of complex comorbidities. Again, the responses were not specific to complex comorbidities but were more broadly related to care of patients experiencing homeless. Most of the sites mentioned using or training staff in Motivational Interviewing, Harm Reduction, Comprehensive Care Management, and Trauma-Informed Care. Mercy Medical has a smoking cessation counselor, exercise group and a women's recovery group to address specific comorbidity groups and Outside In has a diabetes and chronic pain management chronic disease management programs. Peak Vista and H.E. Savage did not have any chronic disease management programs addressing specific comorbidity groups.

All of the sites use self-management programs, tools, and resources for chronic disease management. Mercy Medical uses a diabetes tool from the health Disparities Collaboration that their clinicians and case managers facilitate. Peak Vista has a health education clinic facilitated by a nurse educator and dietitian at the parent Community Health Center. Program performance is measured by HgA1c for diabetes, peak flow for asthma, lipid profile assessment for hyperlipidemia, and blood pressure for hypertension. Outside In uses their Kryptic Care Management Program which is facilitated by physicians and nurses. They provide pain classes and diabetes case management in group and individual appointments facilitated by a clinical pharmacist and a behavioral health specialist. H.E. Savage uses printed handouts provided by a nurse practitioner. Performance is measured through a quality improvement process at the main Health Center.

Care coordination seems to happen through team conferences, EMR "ticklers", and ICD billing codes. Mercy Medical has weekly team conferences, in which all staff attends, to update care coordination needs over time. Peak Vista has an internal tickler program in their EMR and their new EMR is supposed to have flags for prompting clinicians to modify care. They also have a twice per week check on highly acute situations, e.g. out of control random blood sugar or blood pressure, until a level of stability is reached. After stability is reached there are 6-month follow up visits. Case conferences are rarely used but when they do occur, the following staff are included: shelter staff, provider, mental health staff and the patient. Outside In reviews billing codes to determine how to place patients into specific care coordination and refer them to providers.

Three of the sites use EMR for tracking specialist referrals and the majority of referrals are external to the sites. Sites reported difficulty identifying and referring to dermatologists, podiatrists, nephrologists, orthopedists, neurologists, advanced psychiatric care, GI services, and urologists. Half of the sites have a formal referral tracking system but half do not have a systematic method for referring to specialty services. The 2 sites that do have a systematic method for referring are only specific to diabetes and nutrition.

All of the sites reported that their agencies would benefit from training and technical assistance on how to better identify and manage patients with complex comorbidities. Currently, none of them provide trainings to their clinicians around this issue. Ideas for trainings that were provided by sites include:

- Conduct meta-analysis of what other HCH projects are doing to care for patients with complex comorbidities with a focus on health outcomes
    - Provide examples and concrete models for increasing capacity in identifying/serving patients with complex comorbidities, including use of EMR to track and look at trends of complex comorbidities
    - Develop manual on how to better identify/manage patients with complex comorbidities
- Provide chronic disease registry support

CONCLUSION

The presence of multiple chronic conditions increases with age. As life expectancy rises and our society ages, we will see the prevalence of MCC grow (Anderson, 2010; CMS, 2011). Therefore, innovative health care strategies for serving patients with MCC will need to be developed so that chronic conditions can be treated in an integrated fashion and not fall to urgent encounters. The significance of this growing issue has led to the development of *Multiple Chronic Conditions: A Strategic Framework* by the U.S. Department of Health and Human Services (2010). This strategy has 4 main goals:

(1) Foster health care and public health system changes to improve the health of individuals with MCC
(2) Maximize the use of proven self-care management and other services by individuals with MCC
(3) Provide better tools and information to health care, public health, and social service workers who deliver care to individuals with MCC
(4) Facilitate research to fill knowledge gaps about, and interventions and systems to benefit, individuals with MCC

As a major player in the advancement of quality health care services for individuals who are homeless, and have MCC at potentially higher rates than the general U.S. populations, the National Health Care for the Homeless Council is well-positioned to address the goals of the U.S. Department of Health and Human Services. The National HCH Council can do this by continuing to explore the prevalence of MCC in individuals who are homeless as well as specific combinations of MCC, health outcomes related to the presence of MCC, challenges to managing MCC, and current health care delivery strategies that are being utilized by Health Care for the Homeless grantees to treat patients with MCC, beyond those geared towards dually diagnosed patients.

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