The Life Course Metrics Project

As MCH programs begin to develop new programming guided by a life course framework, measures are needed to determine the success of their approaches. In response to the need for standardized metrics for the life course approach, AMCHP launched a project designed to identify and promote a set of indicators that can be used to measure progress using the life course approach to improve maternal and child health. This project was funded with support from the W.K. Kellogg Foundation.

Using an RFA process, AMCHP selected seven state teams, Florida, Iowa, Louisiana, Massachusetts, Michigan, Nebraska and North Carolina, to propose, screen, select and develop potential life course indicators across four domains: Capacity, Outcomes, Services, and Risk. The first round of indicators, proposed both by the teams and members of the public included 413 indicators for consideration. The teams distilled the 413 proposed indicators down to 104 indicators that were written up according to three data and five life course criteria for final selection.

In June of 2013, state teams selected 59 indicators for the final set. The indicators were put out for public comment in July 2013, and the final set was released in the Fall of 2013.

Basic Indicator Information

Name of indicator: Homelessness (LC-07A/B)

Brief description:
  a. Prevalence of homelessness among individuals
  b. Prevalence of homelessness among families.

Indicator category: Community Well-being

Indicator domain: Risk/Outcome

Numerator:
  a. Number of individuals experiencing homelessness in a given county
  b. Number of families experiencing homelessness in a given county

Denominator:
  a. Total county population
  b. Total # families at county level

Potential modifiers: Race, ethnicity, sex, age, geographic location

Data source: U.S. Department of Housing and Urban Development, Annual Homeless Assessment Report to Congress

Notes on calculation: The Annual Homeless Assessment Report (AHAR) to Congress can be accessed here: hudhdx.info/PublicReports.aspx. Families are defined as any household that includes at least one adult over 18 years old and one child who is younger than 18 years old. All other persons, including those in multi-person households consisting of only adults or only children, are reported as single individuals. At the state level, calculate by county, or roll into a summary indicator that is the rate of homelessness per population in the state. Alternatively, the analyst could choose a cutoff value for the rate and at the state level, report the percent of counties with at least X percent of individuals (or families) that are experiencing homelessness.

Similar measures in other indicator sets: None
Life Course Criteria

Introduction
According to the 2013 Annual Homeless Assessment Report to Congress, on a single night in January 2013, 610,042 people were experiencing homelessness of which 394,698 were in sheltered locations and 213,344 were in unsheltered locations such as under bridges or in cars (18). Homelessness affects both individuals and families. During the point-in-time count in January of 2013, there were 70,960 homeless families accounting for 36 percent of homeless people (18). Homelessness can be a short-term, transitional or episodic problem for some or a long-term, chronic issue for others. Of the 610,042 people who were homeless on a single night in January 2013, almost 18 percent (109,132) were chronically homeless, which is defined as homeless for more than one year or four or more episodes of homelessness over a three-year span (18).

A number of factors contribute to risk of homelessness including extreme poverty, lack of affordable housing, single parenthood, domestic violence, and lack of social support (30). Specific life events and potentially critical periods have a great impact on an individual’s risk for homelessness. Adverse childhood experiences (ACEs), substance abuse, and mental illness all have strong associations with homelessness (10,11). ACEs and risk factors for homelessness appear to be cumulative; increased numbers of risk factors translates to greater risk of becoming homeless and increasing challenges to successfully maintain stable housing (31, 32). There are well-established health risks associated with homelessness and an excess of mortality among the homeless population compared to the non-homeless population (28). Children who experience homelessness have seriously compromised life trajectories and are at a disadvantage compared to both the general U.S. population and poor children (29).

Implications for equity
Established factors place certain populations at risk for homelessness more so than others. ACEs are strongly associated with homelessness in adulthood and adolescence (10, 11). Exposure to family dysfunction, early socioeconomic disadvantage, academic underachievement, and separation from caregiver have all been independently associated with homelessness later in life (11). In addition to early life events, current socioeconomic issues, mental illness, and substance abuse also have been independently associated with an increased risk of homelessness (11). Conversely, having adequate family support, good coping skills, recent employment, and an absence of an arrest history or substance abuse treatment history were found to be associated with a shorter duration of homelessness (16). People experiencing chronic homelessness have a life course trajectory that has been altered by an accumulation of risk factors without the balance of supportive factors to allow them to find and maintain stable housing (10). Incarceration is a particularly important factor in chronic or recurrent homelessness as it can lead to initial loss of housing and criminal history can create ineligibility for public housing (17). A study of recurrent and chronic homelessness found incarceration to be a characteristic present in 63.6 percent of people with recurrent homeless episodes and 75.8 percent of people in a state of chronic homelessness (17). Drug and alcohol use disorders are also associated with recurrent homelessness when linked with a history of arrest and antisocial personality disorder (17). These findings are indicative of the multiple, complex factors that contribute to chronic homelessness (17).

According to the 2013 Annual Homelessness Assessment Report to Congress (AHAR), nearly 25 percent of homeless people are children under the age of 18, while nearly two-thirds of homeless people were adults over the age of 25 (18). Families who are homeless are more likely to be headed by young females while individuals who are homeless are more likely to be middle to late middle aged men (19). People who experience homelessness as individuals instead of as a family are more likely to be on the street as opposed to a shelter and more likely to have disabling conditions (19). Homelessness also has geographic trends with the majority of homelessness concentrated in urban cities (19). More than half of the homeless population is concentrated in five states (California 22 percent, New York 13 percent, Florida 8 percent, Texas 5 percent, and Massachusetts 3 percent) while 24 other states combined accounted for less than 11 percent of U.S. homelessness (18).

Homeless populations tend to be spatially clustered. In a study comparing pre-homeless environments to homeless environments, the investigators found that after becoming homeless, people tend to cluster in areas of higher poverty, unemployment, higher rent to income ratios, and lower median income compared to their locations prior to becoming homeless (7). This likely occurs, at least in part, due to the fact that the majority of shelters and homeless services are
located in these areas. Still, the spatial clustering of homeless populations in areas of high poverty could provide additional barriers to finding stable housing and employment (7).

**Public health impact**

Much of the research on the factors that distinguish the homeless population focuses on factors that lead to and cause long-term homelessness, such as mental health and substance abuse. Decreasing homelessness, therefore, may not necessarily impact substance use though it is possible that, decreasing substance use could decrease homelessness. There are several interventions to address homelessness that measure public health outcomes. One systematic review of interventions to improve the health of the homeless found that case management, particularly when linked with other services, led to a decrease in the number of hospitalizations for psychiatric disorders and an increase in the amount of outpatient contact for those in the intervention group (8). Case management was also generally found to be successful in decreasing substance use (8). The review also found that monetary incentives increased medication adherence of homeless people with latent tuberculosis infections (8). The interventions studied were heterogeneous, however, the majority focused on case management and coordinating homeless services (8). Presumably some of these participants were helped to find stable housing, however to better understand the impact of homelessness on health outcomes, studies that provided housing to a randomized group of participants would provide stronger evidence.

A systematic review by Fitzpatrick-Lewis and colleagues found that homeless people with substance use disorders or concurrent disorders who were provided housing reported a decrease in substance use, fewer relapses, and less utilization of health care resources (15). They also found interventions that provided abstinent dependent housing were more effective than non-abstinent dependent housing or no housing at supporting housing status, substance abstinence, and better psychiatric outcomes (15). It should be noted that in both systematic reviews, the highest quality studies rated only “fair to good.” These studies are often difficult to implement and need more evidence-based examples.

Homelessness and incarceration have a direct relationship in that incarceration is a risk factor for homelessness but homelessness is also a risk factor for incarceration (20). People who are homeless have an increased likelihood for incarceration due to property crimes and non-violent crimes related to untreated mental illness (20, 28). In the United States, 15.3 percent of the adult population in jails was homeless within the year prior to their incarceration, which is 7.5 to 11.3 times the estimate of homelessness among the general U.S. population (20).

The “hunger-obesity paradox” describes concurrent hunger and obesity in an individual. The highest rates of obesity currently exist in people of low-income and socioeconomic status (21). This trend continues in the homeless population where a study comparing a homeless population to the National Health and Nutrition Examination Survey (NHANES) data found homeless adult obesity prevalence to be as high as 30 percent and homeless women to be more likely to be obese than non-homeless women (21). Homelessness may contribute to the U.S. obesity epidemic through homeless adults choosing cheap, energy-dense, low-nutrient foods in order to avoid hunger with limited resources or physiological changes occurring to help the body conserve energy when diets are not consistently adequate (21).

A challenging aspect to understanding homelessness is understanding and quantifying the effects of providing stable housing for the homeless population. Two systematic reviews of randomized control trial interventions in this population provide some evidence that decreasing homelessness has positive health outcomes with respect to mental illness management and substance abuse (8,15). These interventions are difficult and expensive to implement and because the homeless population is so heterogeneous, the same intervention is not guaranteed to work from one population to the next (8,15).

**Leverage or realign resources**

Affordable housing is a crucial step to decreasing homelessness. The Department of Housing and Urban Development (HUD) as well as state and local governing bodies are logical partners for establishing access to housing among homeless populations. A number of programs are already in existence including subsidized housing and a housing voucher program. HUD provides funding opportunities to nonprofits and State and local governments to create quick re-housing programs for homeless individuals and families through the Continuum of Care (CoC) Program (22). CoC planning committees at the local level employ a community-based approach to re-housing homeless populations and take the specific needs of local homeless populations into account (22). Although these programs are a step in the right direction, a survey of 27 major cities found the number one cause of homelessness was still lack of affordable housing.
(23). The extent of homelessness in the United States indicates the need for affordable housing program expansion. Education, counseling, life skills training, and case management are all additional program areas that could help to reduce homelessness (27).

In addition to addressing affordable housing, other causes of homelessness must be addressed to prevent the reoccurrence of homelessness. Mental illness and substance abuse are strongly associated with homelessness and unless these problems are addressed it is unlikely that homelessness will substantially decrease. Integrating multiple systems of services would provide more streamlined and comprehensive care to homeless clients (6). In the case of a homeless person with substance abuse problems, the substance abuse can be addressed by the medical system and the patient’s discharge plan could then be coordinated with programs to find the patient stable housing. Opportunity exists with the passing of the Affordable Care Act in 2012 for prevention of homelessness in people with mental illness through improved managed care as a result of health homes, accountable care organizations, health care team development, and co-location of services (24).

ACEs are thought to be the beginning of an accumulation of adversity that may lead to homelessness in many people (10). Preventing and addressing family instability and negative events during childhood may prevent future homelessness and further accumulation of risk factors among these children. Home visiting models, including Child First and Nurse-Family Partnership, may contribute to prevention of homelessness through supporting families and preventing ACEs. Child First is an evidence-based model funded by the Robert Wood Johnson Foundation in Connecticut for preventing adverse events in childhood through home visiting and community services (25). Nurse-Family Partnership, which links high-risk new moms with home visiting nurses who provide support to help improve outcomes for the moms and their babies (26).

Childhood homelessness is associated with mental health problems, school failure, and developmental delay (12). The school system represents a partner that could aid in evaluating students for these issues (12). This would require a system of surveillance and evaluation to be put in place by the school systems and may require additional funding and trained staff to implement new policies.

**Predict an individual’s health and wellness and/or that of their offspring**

Much of the research on the health effects of homelessness is on diseases that lead to homelessness, not the result of homelessness on an individual’s health. Diseases common among the homeless population include: substance use, mental illness, traumatic brain injury, and infectious diseases (1-4). Rates of chronic and acute health issues are high among homeless populations and conditions requiring long-term treatment such as tuberculosis, HIV/AIDS, diabetes, hypertension, and mental illnesses are more difficult to treat in people who lack housing (33). Homeless populations have excess mortality compared to non-homeless populations (6). The mortality rate for people experiencing chronic homelessness is four to nine times higher than that of the general population (28). Common causes of death among homeless people are drug overdose, cancer, and heart disease (6). Drug overdose is by far the most common cause of death among homeless people under the age of 45, indicating that people who are drug users experiencing homelessness are at an increased risk of adverse health outcomes compared to those with housing (6). In addition to an increase in mortality, homeless populations are at an increased risk for numerous infectious diseases, particularly HIV, tuberculosis, and hepatitis C virus (HCV) (2). Other common infections among the homeless include: respiratory infections, skin infections (scabies, pediculosis, tinea, and impetigo), foot problems (ulcers, cellulitis, erysipelas, and gas gangrene), and infectious common to intravenous drug users (HCV, HIV, and hepatitis B) (4).

The health effects of homelessness in families, particularly children, have been studied as well. It is challenging to disentangle the effects of living in poverty and the effects of homelessness since children who are homeless almost always also experience living in poverty. The higher prevalence for obesity in homeless populations could be antecedent to homelessness and an effect of eating fast food and experiencing food insecurity (12-14). Asthma and iron deficient anemia are also increased in homeless children but these findings may be artifacts of living in poverty prior to experiencing homelessness (12). However, studies that compare homeless children with those living in low-income areas have found that homeless children have more mental health problems and experience more developmental delays than children with housing living in low-income areas(14). Homeless children have more serious medical problems than low-income non-homeless children including delay of immunizations, high lead levels, acute illnesses, chronic conditions, and hospital admissions (12). Homelessness among children creates a higher risk for hunger and poor nutrition, lack of health
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care, health problems, developmental delays, psychological problems, and academic underachievement (29). The impact of these issues can be devastating to the current well-being and future life of a child (29).

Data Criteria

Data availability
The data for this indicator (both parts A and B) are available by county or state through the HUD website by calendar year. These reports on sheltered homeless persons are based on local data submitted to the 2007 and 2008 Annual Homeless Assessment Report (AHAR). The AHAR is a report to the U.S. Congress on the extent and nature of homelessness in America, prepared by HUD. It provides nationwide estimates of homelessness, including information about the demographic characteristics of homeless persons, service use patterns, and the capacity to house homeless persons. The reports are based primarily on Homeless Management Information Systems (HMIS) data about homeless persons who used emergency shelters or transitional housing programs. The data are collected in four categories: Persons in Families in Emergency Shelters, Individuals in Emergency Shelters, Persons in Families in Transitional Housing, and Individuals in Transitional Housing. As specified in the Notes on Calculation, families are defined as any household that includes at least one adult over 18 years old and one child who is younger than 18 years old. All other persons, including those in multi-person households consisting of only adults or only children, are reported as single individuals.

These reports do not include or purport to extrapolate about persons that are served by “victim service providers” including rape crisis centers, battered women’s shelters, domestic violence transitional housing programs, and other programs whose primary mission is to provide services to victims of domestic violence, dating violence, sexual assault or stalking. These reports also do not include those who were living in places not meant for human habitation, such as on the street, in hotels or motels, or in doubled-up living situations, unless these persons also used emergency shelter or transitional housing. Reports can only be generated if a community participated in the 2007 and/or 2008 AHAR (5).

Continuums of Care (CoC) are regional or local planning bodies that coordinate housing and services funding for homeless families and individuals. They are in all 50 states and are responsible for the tracking and management of homeless communities in their area. CoC provide point-in-time counts to ascertain the total number of homeless people (sheltered and unsheltered) on a single night in January of each year to HUD. CoC also provides housing inventory reports to HUD each year on the number of homeless assistance programs and beds in their community (9).

Data quality
The data are obtained from the Homeless Data Exchange. The HDX is an on-line tool where CoC can submit data to the HUD; CoC is comprised of regional or local planning bodies that coordinate housing and services funding for homeless families and individuals. The data are collected and maintained in the HMIS, and the reports are generated through HMIS.

All data are based on unduplicated counts, such that each person is counted only once, regardless of how many different programs the person used. Data on length of stay represent the cumulative length of stay for each person within a particular category. For communities that have all emergency shelter, transitional housing and permanent supportive housing providers using HMIS, the total counts reflect the numbers that those providers reported for the 12 month reporting period. For communities where not all emergency shelter, transitional housing and permanent supportive housing providers are using HMIS, this report provides estimates of the homeless individuals and persons in families in emergency shelter, transitional housing and permanent supportive housing programs. The estimate is an “extrapolated count” and is based on the assumption that beds located in programs that do not participate in HMIS are occupied at the same rate and with the same amount of overlap as beds located in HMIS-participating programs.

Data were only included in the national AHAR if HMIS participation rates for a particular category exceeded 50 percent of total beds. The extent to which extrapolated data are representative of the entire community depends on the validity of the assumption that non-participating programs are similar to participating programs. Some programs may target specific sub-populations (such as veterans or women), and their inclusion or exclusion may skew the overall values in particular questions.

Simplicity of indicator
These indicators are relatively simple to calculate across geographic regions, once the data has been obtained. Data can be obtained by generating reports through the HUD or DOE websites but this must be done county by county in a given state for HUD data which makes the indicator somewhat time-consuming to produce.

The indicator components are fairly easy to communicate and to understand but may have different meanings and are indicative of potentially different problems and populations (e.g., individual homelessness due to severe mental illness versus family homelessness due to economic instability), and consequently, different methods of prevention.

References


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