

Life Course Indicator: Unemployment

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: Unemployment (LC-22)

Brief description: Prevalence of unemployment

Indicator category: Economic Experiences

Indicator domain: Risk/Outcome

Numerator: Number of persons age 16 and older in the labor force who are unemployed (and actively seeking work)

Denominator: Number of persons age 16 and older

Potential modifiers: Race, ethnicity, sex, age, marital status, socioeconomic status, geographic location

Data source: American Community Survey (ACS)

Notes on calculation: None

Similar measures in other indicator sets: Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Benchmark Area Improvements in Family Economic Self-Sufficiency: Employment or education of participating adults

Life Course Criteria

Introduction

Unemployment triggers risks across the future life course of the individual as well as those dependent on the individual, including offspring and other family members. Being unemployed often means that an individual and their dependents will have reduced assets and access to health services. Compounded over time and across generations, long term unemployment or periods of unemployment can impact overall economic experiences.

Implications for equity

Unemployment is often used as a marker of socioeconomic position (SEP); greater unemployment may lead to reduced material and psychosocial resources for an individual and their family, including access to health care and financial resources. The indicator has many implications for equity, given the dramatic gradient in unemployment by education and race/ethnicity, gender, education and other characteristics (15, 16). The unemployment gap between those with less than a high school diploma versus college graduates was 10.5 percentage points in 2010. The unemployment gap is greatest between whites and blacks and smaller between whites and Hispanics. Characteristics of the unemployed include: aged under 25 (particularly females), non-white, low educational attainment, unskilled (males), skilled and partly-skilled (females), unmarried, in rented accommodation, working in construction, and no fixed job or occupation (16).

The rates of unemployment and the growing numbers of uninsured people may exacerbate health disparities in low income and minority communities that already suffer from barriers to care and higher rates of chronic disease. Reducing unemployment among groups who experience more detrimental health outcomes has significant implications for health equity and would likely have a direct influence in health improvements for higher burden populations (22, 23).

Public health impact

Decreasing unemployment would have a significant positive public health impact. Unemployment has been linked to many adverse health outcomes (9, 10). Conditions associated with worse health through unemployment may occur through a variety of mechanisms, including lack of material resources for those who are unemployed, social isolation, loss of self-esteem, stress of job loss and conditions of job security, as well as implications for children living with unemployed parents. Because the majority of Americans rely on employer-provided insurance, unemployment affects access to health services and prescription drugs (18). Addressing the rate of unemployment, and decreasing the duration of such occurrences, would impact public health in a myriad of ways. First, as unemployment events are tied to decreased mental health and well-being, such that each occurrence compounds and worsens the effects of previous episodes of unemployment, reducing unemployment also will serve as prevention for mental health problems (1, 3). The association of the duration of these episodes of unemployment with suicide attempts and mortality grows stronger with longer duration, indicating that resolving unemployment in a timely fashion is important to protecting mental health (14, 21). Second, while unemployment has well-known associations with alcohol use and depression, it also has been shown to be associated with infertility (26) and lower rates of smoking cessation success (27). Third, at the community level, higher unemployment rates are associated with higher levels of crime and depression (28, 29) as well as teen pregnancy. The strong economy of the 1990s was accompanied by significant declines in violent crime and teen pregnancy rates. Between 1993 and 2001, the violent crime rate declined by 60 percent (31) and between 1990 and 2004, teen pregnancies declined by 46 percent (33).

Like poverty and other markers of SEP, unemployment may be transmitted across generations resulting in a public health impact potential of unemployment which spans beyond the current workforce. In addition to the challenges that reduced income creates for caring for children, children's exposure to parents' compromised mental health, financial security and assets, insurance access and more may have a lasting impact on future generations. Experiencing unemployment and subsequent poverty, particularly during important and transitive phases in the life course, will have an adverse impact on future health. SEP has an association with health that remains consistent over the life span. A mother's SEP is associated with an infant's health outcomes, including breastfeeding, maternal diet, and early childhood nutrition, into CVD risks, tobacco use, and alcohol consumption in young adults. Childhood SEP also has associations with adult self-rated health and CVD – its associations with mental health carry over into both adult SEP and health. As an adult, the later in life SEP changes for the worse, the more extreme the health effects. It has associations with everything from spontaneous abortion and depression to diabetes and early morbidity and mortality.

Leverage or realign resources

The potential to leverage or realign resources to address unemployment is high, including engagement of fields such as housing, urban planning, environmental justice, education and civil liberties. Examples of non-traditional collaborations can include: increased job training, incentivizing businesses to relocate to areas with high incarceration rates and to hire ex-offenders, programs targeting completion of education among youth, and Department of Housing and Education partnerships.

Monitoring and reporting on unemployment, particularly as disaggregated by race/ethnicity, sex, age, geography, and other characteristics will open opportunities for collaboration and partnerships outside the traditional MCH and public health fields.

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

Unemployment has many implications for the unemployed individual's health, the health of their children, and the health of their communities. For adults, unemployment may lead to decreased well-being that is never fully recovered, even after regaining employment (1, 2). Unemployment not only decreases life satisfaction, but increases future insecurities, contributing to psychological damage and well-being (3, 4). And while some behavioral and emotional problems in childhood are associated with adult unemployment, they do not attenuate the emotional and psychological impacts of unemployment (5, 6). Furthermore, the occurrence may trigger a spike in anxiety, alcohol abuse, and injuries, which may be detrimental not only to themselves but to their family. Each unsuccessful attempt to regain employment may further damage psychological well-being and decrease life satisfaction and self-reported social livelihood (7, 8). Unemployment has been shown to have a cumulative effect on acute myocardial infarction, early stroke, psychological distress, cardiovascular disease risks, and morbidity and mortality (1, 3, 5, 11-14). These negative health events may in turn reduce an individual's capacity to work. Unemployment also may negatively impact marital relations (19, 20).

Parental unemployment also can be a predictor of children's health outcomes. Parental unemployment has been linked to physical abuse of children (24, 25). Because unemployment may cause psychological disintegration (30), this may lead to harsher punitive and impulsive parental behavior (32). Parental unemployment also has been shown to lower children's self-esteem and increase self-destructive behavior among adolescents (34). Maternal unemployment also has been associated with increased BMI among children (35), and both parents being unemployed has been found to be associated with preterm birth (36). In regards to family planning, unemployment has been shown to have opposite effects on men and women's probabilities of having a first child- for men it is decreased, while for women it is increased (37).

On a community or ecological level, unemployment rates have been associated with increased cardiovascular risks (38) and crime rates (39), as well as low birth weight (40). Furthermore, unemployment is associated with a variety of disparities, from health and racial discriminations preceding unemployment to gender and racial differences in morbidity and mortality risks and outcomes.

Data Criteria

Data availability

The American Community Survey (ACS) is an ongoing nationwide survey that collects and provides data annually on demographic, social, economic, and housing characteristics in the United States. The survey is administered by the U.S. Census Bureau and replaced the decennial census long form starting in 2010. The ACS is sampled each year, resulting in three million addresses selected and approximately two million final interviews. However, the sample drawn is substantially smaller than the one used for the previous Census long form; as a result, data must be pooled across years in order to provide reliable estimates for some geographic units. The ACS provides yearly estimates for all states, as well as all cities, counties, metropolitan areas, and population groups of 65,000 people or more. For smaller areas, multiple survey years are combined to obtain reliable estimates: three survey years in areas with 20,000 to 65,000 people, and five survey years in areas with fewer than 20,000 people. ACS data are released the year following the year in which they were collected, making the estimates extremely timely. FactFinder provides tables by year, state and county, or data can be downloaded from FTP site.

Data are available for all 51 jurisdictions. The data utilized to calculate the indicators are widely available, for every state and for varying geographies (i.e., census tract, zip code tabulation area, county, place or city-level), based on U.S. Census data.

Data quality

Since the ACS is a sampled survey, there is uncertainty in the estimates. The Census Bureau takes steps to minimize the error associated with non-sampling error (reporting, coding, sampling frame, survey questionnaires, non-response, and interviewer bias) through the use of trained interviewers and careful review of all questionnaire design, sampling, and analytic steps. In addition, the Census Bureau began releasing margin of error data for ACS estimates starting in 2006; these estimates allow data users to calculate 90 percent confidence limits for all point estimates released from the ACS.

To account for the complex sampling design, the ACS employs an equally complex weighting scheme. The weighting process is well-documented in the survey methodology handbook, accessible on the web. Response rates for the ACS are calculated for housing units and group quarters (person). From 2000 to 2011, the housing unit response rate ranged from a low of 93.1 percent in 2004 to a high of 98 percent in 2009. Between 2006 and 2011, the group quarter response rate ranged from a low of 97.4 percent in 2006 to a high of 98 percent in 2008 and 2009.

The data quality is excellent, although data may not capture discouraged workers that drop out of the workforce, or some workers who are part-time because of economic circumstance (vs. by choice). Sensitivity, specificity, predictive value positive and reliability will vary depending on the outcome. In 2011, Kromer and Howard published a working paper comparing employment estimates between the ACS and the Current Population Survey (CPS). The authors found significant differences between the two estimates in 2007; however, question changes implemented in the 2008 ACS helped improve consistency between the two surveys in regard to both employment and unemployment estimates. The number of states with statistically different unemployment estimates between the ACS and CPS dropped from 47 in 2007 to 21 in 2009 after implementation of the question change (17).

Simplicity of indicator

This indicator is calculated by the American Community Survey and can be obtained in one-, three- and five- year estimates. The indicator is defined as persons age 16 and older in the labor force who are unemployed (and actively seeking work) and denominator is the total persons age 16 and older in the workforce. The data to calculate this indicator is available in ACS.

Despite the accessibility of data through FactFinder, both the website and data downloads are not very user-friendly.

The indicator is simple to explain and to understand. No data linkage is required for this indicator.

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This publication was supported by a grant from the W.K. Kellogg Foundation. Its contents are solely the responsibility of the author and do not necessarily represent the official views of the W.K. Kellogg Foundation.

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