Income Volatility: A Preventable Public Health Threat

See also de Camargo Jr, p. 1855.

The current White House budget proposal due for consideration later this year suggests large cuts to federal social safety net programs for low-income households in the United States. Among the programs that would be affected by the proposal, which includes cuts of $1.7 trillion over 10 years, are the two largest federal safety nets in terms of budgetary expenditure: the Earned Income Tax Credit (for the working poor) and the Supplemental Nutrition Assistance Program (SNAP, or "food stamps"). The cuts would be enforced by reducing the number of people eligible for the programs, adjusting income and work requirements, and reducing benefit amounts. SNAP, which would be cut by more than 25%, currently serves about 14% of American households, providing about $4.13 per person per day for people in households at or below the poverty level (e.g., ≤ $1610/month for a family of three).[1]

Few Americans remain on traditional "welfare" after the reforms enacted under the Clinton White House in 1996. In the beginning of 1996, 68% of families below the poverty threshold with children were receiving welfare benefits (Temporary Assistance for Needy Families, or TANF); by 2014, because of changes in eligibility and work requirements, that figure was 23%.[2] TANF now constitutes the sixth largest federal social safety net in terms of budgetary expenditure, behind Pell grants for college tuition.

In conjunction with the decline in welfare receipt, income volatility increased among low-income households.[3] Income volatility is rapid and unpredictable change in income over time—typically, sudden declines in income. Month-to-month income volatility rose after the welfare reforms of the 1990s to the highest level since 1980, when data were first consistently recorded.[3] Low-income households now experience five spikes or dips in income per year that exceed one quarter of their mean monthly income.[2] In the national 2014–2015 Survey of American Family Finances (n = 5661 households), a majority of low-income families had bills and income they characterized as "inconsistent" or "unpredictable"; more than 40% of those with annual income of less than $25 000 per year had a change in annual income of more than 25%.[2] Although many health surveys ask only one question about household income (average monthly or annual income), detailed assessments such as the US Financial Diaries Project (2012–2013) reveal how average income estimates mask complex vulnerabilities due to income volatility.[2] Low-income households (n = 235) in the Diaries Project experienced an average of six months per year when income was 20% above or below mean monthly income (a within-year coefficient of variation of 39%). Despite poverty, 77% of the households reported that "financial stability" was more important than "moving up the income ladder."[2]

Income volatility is often accompanied by income uncertainty—having income sources or amounts that are not reliable or even known in advance. More than one third of the households surveyed in the Diaries Project had difficulty estimating next month's income.[2] Many changed their primary source of income between months. Income uncertainty was related to trends in the larger economy and welfare state, including the availability of part-time, short-term jobs rather than full-time, long-term jobs; jobs that rely on tips or time-based wages rather than fixed salaries; and the difficulty of maintaining eligibility and benefits from government assistance programs. Households that scored high on financial literacy tests were no more likely than households with low financial literacy to achieve their monetary goal for having "emergency savings," as the limited savings of each household was depleted by financial "shocks": sudden expenses related to illness, a car accident, or other unexpected events. Many households resorted to payday loans or credit cards to weather financial shocks, resulting in long-term debt.[2]

HEALTH OUTCOMES

The 1990s welfare reforms were associated with increased employment and reduced size of welfare rolls, yet were also associated with worse mental health, health-related behaviors (e.g., increased alcohol abuse and tobacco smoking), and health care quality indices among affected Americans (e.g., reduced access to medical care and lower completion rates for preventive cancer screenings).[4] Although the reforms increased incomes among welfare recipients, the usual association between heightened income and improved health was not achieved; instead, volatile and uncertain income sources were associated with reduced health.

Income volatility and income uncertainty may play a role not only in poor mental health or health behaviors, but also in

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This editorial was accepted August 26, 2017.

doi: 10.2105/AJPH.2017.304109

acute and chronic health care outcomes. A recent study of hypoglycemia (low blood sugar) revealed that hospital admissions for the diagnosis among low-income areas tended to spike during the fourth week of each month. Low-income persons with diabetes—who are often taking insulin or other medications that can lower blood sugar to dangerous levels if they are not eating sufficient food—experienced a higher odds ratio for emergency room visits and hospital admissions for hypoglycemia than persons with higher incomes.[5] The effect disappeared during a period of budgetary stimulus, during which eligible persons received increased SNAP benefits, but recurred after the stimulus ended. Low-income persons who typically received lump-sum paychecks or SNAP benefits at the beginning of each month tended to run out of benefits by the end of each month, particularly in the context of unanticipated financial shocks.[5] Patients with chronic diseases such as diabetes or hypertension also forgo food and medical visits to save money (e.g., from copayments) to pay for financial shocks—such as unexpected increases in rent or bills for heat in cold winter months—contributing to heightened risk of blindness, limb amputation, kidney failure, heart attack, and stroke.[1]

IMPROVING RESEARCH

If implemented, the pending cuts to federal safety nets may result in wide between-state variations in policy responses, including differences in state policies toward assisting low-income Americans facing exclusion or reduced benefits. Such between-state differences were apparent after the 1990s welfare reforms, implementation of the Affordable Care Act (which revealed large variations in Medicaid expansion decisions for low-income households), and the 2007 economic recession (during which some states, but not others, chose to reduce support for housing assistance and related social support programs).

Public health researchers have studied mechanisms to help low-income households navigate the increasingly complex and piecemeal terrain of obtaining government assistance to weather income volatility and uncertainty. Even with restricted eligibility standards, many low-income American households remain eligible, but do not participate in federal or state safety net programs; for example, about 37% of people eligible for SNAP in California fail to enroll,[1] possibly because of difficulties of enrollment, limited benefit offering, or fears that undocumented persons may be reported to immigration authorities. Yet, active enrollment programs have been reported to improve health outcomes, particularly when they cross multiple sectors of poverty such as housing, food assistance, income support, and employment assistance. For example, a program that assigns trained undergraduate students to assist low-income persons with chronic diseases to sign up for government programs across multiple domains—such as reduced pricing plans for winter heating bills and assistance with healthy meal procurement—reported clinically meaningful improvements in critical chronic disease biomarkers.[6] Although the future of public health budgets and outcomes remains unclear, public health researchers and practitioners have opportunities to understand and address the health consequences of income volatility and income uncertainty through such state and local efforts. AJPH

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