Will There Be an Epidemic of Corollary Illnesses Linked to a COVID-19–Related Recession?

See also Morabia, p. 923, Tarantola et al., p. 925, and the *AJPH* COVID-19 section, pp. 939–977.

Currently, US unemployment claims have skyrocketed to 30 million in the past six weeks, continuing in a stark upward trend, and labor economists estimate the unemployment rate at minimally 18.3%. These unemployment figures are a feature of the COVID-19 recession that is characterized by sharp gross domestic product (GDP) growth decline. Despite the greatly damaging impact of the opioid crisis over 2015 to 2017 resulting in a decrease in life expectancy over these three years, the long-term increases in average GDP per capita from 1999 to 2018 managed to save lives on average (i.e., age-adjusted mortality rates declined in the United States). For example, during 1999 to 2018, the average GDP per capita annually increased 1.2%, whereas the related age-adjusted mortality rate has shown an annual decrease of approximately 1% on average (0.99%). However, recessions erase some of this beneficial effect of GDP growth on mortality reduction.[1]

The legislated relief measures have challenged the dichotomy between either combatting the COVID-19 pandemic or concentrating on economic recovery. Similarly, an epidemic of chronic disease, mental illness, and mortality is a potential consequence of the COVID-19–related recession. This can be hypothesized considering both primary health care use decline and stress-induced illness likely to result from short- and long-term unemployment, including loss of income and employer-based health insurance as well as the destruction of wealth.

These corollary effects of major economic distress need to be distinguished from the anxiety, fear, and depression that have arisen from the pandemic itself and its widespread mental health consequences. The supervening corollary public health outcomes are expected to be generated by unemployment,[2] poverty, prevailing health disparities, and a decline in access to health care resulting from the COVID-19 economic breakdown. Public policy experts have already sounded the alarm, questioning whether the $2 trillion relief package as well as planned additional measures will be sufficient to stem the tide of economic shock, sharp GDP decline, and projected long-term damage to livelihoods. However, although the priority is to contain the spread of COVID-19, public health officials need to anticipate and plan for the potential health impact of the recession that results from the pandemic.

POTENTIAL RECESSION-RELATED HEALTH EFFECTS

What are the bases for concerns over the hypothesized occurrence of this chronic illness, mental distress, and mortality corollary produced by the COVID-19 economic shocks? First, psychological stress indexes, such as the Social Readjustment Rating Scale, emphasize health problems and a great variety of job and financial losses—especially job change—as primary sources of distress.

Second, the health gradient, in a society of greatly widening economic inequalities, becomes particularly poignant in the era of COVID-19. The "health gradient" is a fundamental fact of modern epidemiology in which the lower the socioeconomic status, the higher the illness and mortality rates. We have learned from the Great Recession of 2007 through 2009 and its lagged effects through 2017 that major economic disruptions are associated with heightened chronic disease mortality (e.g., cardiovascular illness and malignancies) and mental disorders. In significant economic crises like the COVID-19 economic meltdown, there is likely to be a reduction in socioeconomic status for a substantial segment of the population, particularly for lower- and middle-income wage workers and ethnic minorities employed in the service industries. This compounds the longer-term economic damage experienced by manufacturing workers during and following the Great Recession. The drastic employment insecurity attributable to COVID-19 and the related food and housing insecurities that have already emerged are leading to intensification of poverty, thus exacerbating health disparities—especially affecting African American and Latino communities. These interlocking trends upend the Centers for Disease Control and Prevention goals in Healthy People 2020 for promoting healthy environments and lifestyles for the US population.

Third, there is a profound disruption of social cohesion and social support networks, which are deeply disturbed by losses of employment contacts and

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restricted personal interaction under the, scientifically correct, COVID-19 social distancing policy. The epidemiological literature on the importance of social ties and social support in minimizing the severity of illness and mortality has a substantial decades-long history. Although digital connectivity somewhat mitigates the abrupt and potentially enduring loss of social cohesion, it does not extend to all vulnerable communities.

LINK BETWEEN ECONOMIC POSITION AND HEALTH

We also need to consider circular linkages over time between health and economic position. Thus, health problems may themselves lead to further job losses, inability to work, and further damage to the economy, in that the most vulnerable populations are those at highest risk of contracting the coronavirus and of consequent unemployment. Subsequent damage to the economy through employment[3] and wage losses, once again, most acutely influence the lower-income and least educated populations, putting them at greater risk of stress-related and chronic disease.[4] Disease increases in vulnerable, lower-socioeconomic populations are a potential source of increased damage to employment and further harm to the overall economy. [5] Poverty-reduction efforts as prioritized by the Healthy People 2020 agenda and the United Nations Millennium Development Goals thus come to a standstill as COVID-19 recreates further cycles of concentrated poverty.

RECESSION-INDUCED IMPACT ON MORTALITY

Increased unemployment and GDP decline during recent recessions have been associated with cardiovascular mortality[6] and elevated levels of suicide in industrialized countries. One of the most precipitous COVID-19 recessional sources of health damage may be a stark rise in suicide mortality. Conventionally, it is found that during recessions—involving rising unemployment and declining GDP per capita—suicide rates increase over at least a two-year period and can be distributed over a five- to six-year lag.[7] In a substantial recession, in which US unemployment would increase to the level of 10%, male suicides could potentially increase by more than 5000 based on the calculation that an increase of unemployment by 1% is related to 525 additional male suicides. Male suicides tend to be somewhat greater than three times the number of female suicides. For example, in 2017 there were 22.4 male and 6.1 female deaths by suicide per 100 000 US residents. Recently, declining labor force participation rates—involving withdrawal from the labor force—have often become more sensitive predictors of suicide in the United States, especially among women.

If we take the Great Recession as a hypothetical worst-case scenario for the implications of the COVID-19-induced recession, combined economic–epidemiological models have demonstrated that GDP downturns, elevated unemployment, and declines in labor force participation are significantly related to increased chronic disease and mental disorder–related morality. Equally important is that the corollary health impact of the COVID-19 recession may well accelerate the current opioid, alcohol, diabetes, body mass index, and suicide epidemics—especially for middle-aged and younger populations.

To minimize the effect of the corollary health effects on all age groups, it is crucial to contain the COVID-19 pandemic at the earliest possible time. The public health community and the public at large need to be alerted to the potential spillover effects that may follow if the COVID-19 pandemic is not rapidly brought to an end. Quick and effective measures need to prioritize the unemployed, low-wage workers, migrants as well as the African American and Latino communities—all of whom are at disproportionately higher risk for both COVID-19 and mortality because of the consequences of the pandemic-induced recession. AJPH

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CONFLICTS OF INTEREST

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