

Can I Afford to be Healthy?

Steve Cline, DDS, MPH

It is perfectly intuitive to expect certain measures of population health to decline during periods of great economic instability. Recessions are marked by increases in unemployment and decreases in income. The literature connecting income and health status is well-established; frankly, being poor is bad for your health. As we face increased numbers of unemployed and lower family incomes, we expect lower health insurance coverage,¹ subsequent lower access to timely health care, and derivative effects on health. Again, the link between health insurance coverage and health outcomes is unequivocal.² Furthermore, common sense suggests many other effects—food insecurity, overcrowded and substandard housing, increased stress—all related to our economic turmoil. The popular media has been littered with stories of increased rates of wide-ranging illnesses and conditions including job-related deaths,³ abortions,⁴ mental health crises,⁵ and child abuse and neglect.⁶

The evidence connecting *individual* economic insecurity and health outcomes is quite strong. However, the research on the effect of economic insecurity on the population as a whole is less definitive.⁷ A 1983 review of earlier research concludes that the relationship between the business cycle and population health is not resolved, with evidence suggesting both direct and inverse relationships exist.⁸ Christopher Ruhm is one of the best known proponents of the inverse relationship; see his sidebar on page 328 for his view. Notwithstanding his research, there are other studies with the more intuitive finding that health declines during periods of economic stress. For example, a study in Sweden followed approximately 30,000 individuals for over a decade and found that unemployment increased mortality risk by almost 50%.⁹ Furthermore, recent work looking at those who have become unemployed through plant closures found an increased risk of poor health outcomes.¹⁰ Perhaps the conflict between the two perspectives is largely due to the fallacy of composition—although the unemployed individual may have poorer health, increases in an economy's unemployment may not lead to decreases in population health measures. Other work has found asymmetric results of unemployment changes—an increase in unemployment leads to large decreases in the mortality rate, while a decrease in unemployment rate leads to much smaller increases (5% of the effect size).¹¹

The science is clear about what diseases North Carolinians are dying from and which underlying behaviors

cause them. For the most part, we are victims of our own lifestyle choices. Tobacco use, poor diet, and physical inactivity alone account for more than 35% of all deaths in the US.¹² Lifestyle changes brought on by a significant economic downturn can result in people reacting with more unhealthy behaviors. However the converse could also be true: an economic downturn could increase healthy behaviors which would then improve health. Unfortunately the evidence suggests that where health is concerned, poor health behaviors may outweigh the good ones during an economic crisis.

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Physical Health—"Healthy behaviors are the least of my worries"

Physical Activity and Nutrition

Eating better and exercising more is a personal goal we often hear. However, achieving this worthy goal may be more difficult to do in bad economic times. We are already a nation of overweight people; two-thirds of North Carolinians are considered overweight or obese, which places North Carolina as the 12th fattest state in the nation.¹³ Economic stress often results in eating cheaper, less healthful food, and stress alone can lead to overeating or other negative eating habits.¹⁴ Poor eating habits are exacerbated by the loss of family resources to support gym memberships, recreational camps for children, organized athletic events, and other physical activities that can improve health.¹⁵

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Economic Conditions and Health Behaviors: Are Recessions Good for Your Health?

Christopher J. Ruhm, PhD

Health is conventionally believed to improve during economic expansions and deteriorate in downturns. Yet the empirical evidence supporting this view is quite weak, and recent research using sophisticated methodological approaches indicates that mortality *decreases* and physical (although not necessarily mental) health *improves* when the economy temporarily weakens.¹ For example, a one percentage point increase in the unemployment rate is associated with a 0.3% to 0.5% reduction in total deaths.² One reason for this is because during economic downturns, driving often decreases due to reductions in commuting and work-related travel. Consequently motor vehicle fatalities decrease; a one point rise in joblessness reduces traffic deaths by 1% to 3%.² However, many other types of mortality also decline. Particularly noteworthy is the substantial decrease in fatal heart attacks,³ which is interesting since this risk is responsive to short-term changes in health behaviors and environmental factors.

Lifestyle modifications probably explain some of the health improvements occurring during economic downturns. One reason is that there is an increase in non-market leisure activities which can often be health promoting, such as exercise and cooking meals at home. Lower incomes may also play a direct role for a reduction in purchases such as alcohol, tobacco, and restaurant food.

Alcohol use has been most widely studied. In research conducted during the 1990s, I found that drinking (particularly the consumption of hard liquor) and alcohol-involved vehicle fatalities fall when the economy weakens.⁴ Supporting evidence has been provided by both earlier and later studies.⁵⁻⁷ Since moderate alcohol use is linked to

health benefits, reductions in drinking might imply less healthy lifestyles. However, this is not the case: the variation in overall consumption reflects movements from heavy to light alcohol use, rather than between recreational drinking and abstaining.⁸

Limited research suggests that other behaviors also become healthier in tough economic times. Using data from the Behavior Risk Factor Surveillance System, I estimated that a one point drop in the percentage of the population employed reduces the prevalence of smoking, obesity, physical inactivity, and multiple health risks by 0.6%, 0.4%, 0.7%, and 1.1% respectively.⁹ The decline in body weight is concentrated among the severely obese and groups with relatively high risk of early death (males, African Americans, and Hispanics). Increases in exercise largely reflect movements away from complete inactivity, and the reductions in tobacco use disproportionately involve heavy smokers, although the reasons for this are not fully understood. These macroeconomic effects are initially quite small but accumulate over time. Supporting evidence has been obtained by other researchers for smoking (using the same data but examined over a longer time period), for exercise in Germany, and for obesity among high school aged boys (but not girls) in the United States.¹⁰⁻¹² However, mixed findings have been provided using data from Finland.¹³ One study also showed that pregnant women consume less alcohol in bad economic times but with varied results for smoking.¹⁴

The improvements in health during economic downturns occur despite reductions in many types of medical care. My research indicates that routine medical checkups and screening tests (mammograms, pap smears, and digital

Health Insurance and Access to Care

The majority of North Carolinians receive their health insurance through their employer. Unfortunately, North Carolina is experiencing the highest unemployment rates we have seen in decades, which has created a growing percentage of uninsured residents. More families with less income essentially leads to more people dependent on public assistance programs and safety net health care providers. In fact some of our public assistance benefits are based on recipients getting jobs. ("Workfare" Reform, 1996.) But what happens when there are no jobs? Access to care declines. With every 1% increase in the unemployment rate, an estimated one million people lose their health insurance.¹⁶ In addition, even people with health insurance are reluctant to seek appropriate medical care and fail to comply with needed medications because they worry they can't afford the prescription medications.¹⁷

Social Influences

Social determinants of health such as increased poverty, decline in education levels, and inadequate housing play a significant role in health status.¹⁸ This is particularly true for vulnerable populations, who already experience significant health disparities. There is a long-standing debate among health services researchers about whether a sharp socioeconomic decline causes a decline in health or if this sharp decline only affects poor, less healthy people more. But does it really matter? The point is that health suffers when basic human living conditions are compromised.

Mental Health—"Life is hard!"

Lack of money and poor living conditions can cause significant stress and emotional consequences. The loss of a

rectal exams) are less often received during downturns; doctor visits and hospital episodes also decrease.^{15,16} However, these patterns may not be universal. For instance, there is evidence that advanced medical treatments for coronary heart disease, such as coronary artery bypass graft and percutaneous transluminal coronary angioplasty, become more rather than less common when the economy weakens.³

Health is also likely to be affected positively during short-run decreases in the production of goods and services. Reductions in hazardous working conditions and the physical exertion of employment could have beneficial effects when job hours are decreased during economic expansions. The decline in work hours also increases sleep, the lack of which is linked to stress, decreased alertness, higher injury risk, elevated rates of obesity, and physiological or psychological symptoms. Finally, injury

rates may fall because of relatively large decreases in the cyclically sensitive construction and manufacturing sectors, where the risk of accidents is relatively high.

The surprising conclusion is that physical health improves, on average, when the economy weakens. This does not undo the damage of bad economic times but it does emphasize the need for caution in assuming that all measures of well-being move in the same direction when economic conditions change. Exciting research is presently underway that will increase our understanding of the mechanisms of these effects and of how the impacts differ across population subgroups.

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job or the inability to provide for one's family can greatly increase stress, anxiety, and depression during a recession. The increase in emergency room visits, suicides, and psychiatric hospital admissions associated with mental health conditions is well-documented during periods of economic decline and financial stress.¹⁹ For example, earlier work found increases in psychological stress and care-seeking for psychological stress during periods of economic instability.²⁰ Economic stress can also increase violent and abusive behaviors. Stress, anxiety, and depression can also lead to a wide range of physical health conditions including asthma, high blood pressure, back pain, and cardiovascular disease. Stress can contribute to an increase in negative coping behaviors such as tobacco use, alcohol consumption, or physical abuse. According to a report recently released by the Family Violence Prevention Fund, "nearly half of all teens whose families experienced economic problems in the past year reported having witnessed their parents abusing each other."²¹

Family Planning—"It's a baby bust!"

One of the most telling indications that a poor economy has a negative impact on health is how people respond to family planning issues. Families who are worried about their future are making tough choices. A March 2009 survey by the American College of Obstetricians and Gynecologists of more than 1,000 women showed a decrease in women scheduling annual exams and an increased demand for birth control services, including a preference for longer-term options such as vasectomies.²² The survey also reported more families choosing to postpone planned pregnancies and an increased demand for abortion services. Research in Australia found that unemployed married women were more likely to terminate pregnancies than employed married women.²³ Uncertainty about the future results in reluctance to bring a baby into the world. These trends may be a product of a temporary decline in the economy but can have a lasting impact on the lives of these families.

"Don't give up"

There is hope. There are things we can all do to reduce our health risks that aren't dependent on the economy. These are the same things that make you healthier all the time and they involve personal decisions we control. We all need to make better food choices, exercise regularly, get plenty of sleep,

resist bad habits, seek help when you need it, and think positively. Easier said than done, I know, but in the end, it's all worthwhile. Exercise can be fun and leading a healthier lifestyle can make you feel better. By all indications these tough economic times will not be short-lived. Let's do what we can to make sure we are not short-lived ourselves. **NCMJ**

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