

risks misdirecting health care and otherwise undermining important social goals. At the same time, we welcome the considerable opportunities these tracks provide for targeting efforts to improve health care's quality and value. The question for policymakers is whether the social harm (e.g., increased use of costly health care products with minimal marginal benefit or detrimental effects on quality) outweighs the benefits from a particular use. These harms and benefits will be difficult to quantify, but assessing them will be an increasingly necessary exercise as information technology becomes more widespread.

Many physicians are probably unaware that their routine clinical activities are being tracked or for what purposes. To our thinking, the appropriateness of following these tracks depends critically on the purpose, and the First Circuit Court has spoken loudly in indicating that limits can be placed on the use of health care data for advancing commercial marketing goals. The medical profession needs to lead the relevant policy discussions — not just because it is physicians' tracks that are being monitored, but also to ensure that the profession is at the forefront

of efforts to enhance public trust and improve the quality and value of health care. Individual physicians can be thoughtful about when to allow their tracks to be watched. Professional organizations can assess the privacy policies of commercial information technology systems and tools to determine how information should be shared and what uses should be off-limits. These organizations should avoid financial ties with commercial vendors, such as sellers of electronic medical-record systems, that might limit their objectivity in such discussions. Legislators can investigate uses of data, imposing restrictions on inappropriate use in some cases or facilitating use in others. Federal agencies, such as the Department of Health and Human Services, can assist in these discussions, as they have done with data policies concerning health information exchanges. In the end, governmental agencies may need to assume a direct role in acquiring data and licensing it for specific uses through data-use agreements if a regulated market cannot simultaneously facilitate positive use and restrict negative use.

The First Circuit Court's ruling urges physicians and policymakers

to better define the benefits to society of various uses of health information going forward.

Dr. Grande reports serving on the board of directors of the National Physicians Alliance and as an expert witness for the State of Vermont in a case concerning the commercial use of physician prescribing data. No other potential conflict of interest relevant to this article was reported.

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Health, Medical Care, and Economic Crisis

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On December 1, 2008, the National Bureau of Economic Research declared that the U.S. economy had been in recession since December 2007. The number of Americans seeking unemployment compensation has reached levels unmatched since 1983, when we were suffering the worst recession since the Great Depres-

sion. Intuition suggests that the fear or experience of job loss, coupled with the declining value of homes and investments, makes many of us anxious, causes us to reduce discretionary spending (including that on medical care), and distracts us from taking preventive measures. Many physicians may therefore assume that our

economic crisis will increase the burden of illness on our society. But does a contracting economy actually affect the health of a population? And if so, how?

A few months ago, when the current recession was still called an economic downturn, reports in the lay press highlighted research suggesting that a troubled

economy often results in improved health in the population. In reality, researchers' findings on this score have been decidedly mixed — and have left much room for speculation about cause and effect, action and reaction, and the complex factors at play.

Most researchers agree that involuntary job loss increases the risk of psychiatric disorder and its somatic sequelae. Much research has found a strong correlation between job loss and clinical and subclinical depression, anxiety, substance abuse, and antisocial behavior. Longitudinal panel studies have suggested that job loss tends to precede the onset of psychiatric disorders, although selection bias clearly contributes to the correlation.¹

Research has also shown that there are strong associations between involuntary job loss and somatic illness.² Although prospective research has suggested that when the two are associated, the job loss typically precedes the illness, such research remains sparser than that focused on psychiatric outcomes. Critics argue that selection bias confounds the findings, because severe illness in persons of working age typically has precursors, including absenteeism and health insurance claims, that employers notice. Workers who take multiple sick days or begin to file more insurance claims than usual become targets for layoff when the demand for labor wanes. Nevertheless, job loss might be considered the proximal cause of illness in such cases, because persons with similar distal risks who remain employed are less likely to become seriously ill.

Research on the effect of a contracting economy on persons other than those who lose their jobs remains more controversial.

Much of this work mimics research on environmental exposure to an ambient pathogen, in that researchers estimate a measurable response to some economic indicator. This “ecologic” work has not demonstrated a clear association between a failing economy and nearly any outcome except psychiatric disorders and accidental injuries: the rates of the former increase during bad economic times, whereas the rates of the latter decrease.

Some research has addressed the question of whether merely residing in an area with a contracting labor market contributes to the likelihood of illness. This work has often yielded results consistent with research on consumer behavior, but it has ambiguous implications for population health. Actual or feared loss of income, for example, may cause households to reduce consumption and substitute cheaper goods for costlier ones. The effects may include a reduction in risky behavior, such as driving or alcohol use, and therefore a reduction in accidental injuries. Income loss may also lead some people to consume fewer calories and thereby to avoid obesity. Others, however, may substitute inexpensive, less nutritious food for more healthful alternatives.

As this summary implies, countervailing mechanisms make the net effect of economic contraction on a population's health difficult to estimate. The results of research into less-studied mechanisms reinforce this ambiguity; it is not always easy to discern the causes underlying observed associations, and some associations seem to contradict others. For example, workers with a history of absenteeism due to health problems must compete with people with-

out such a history when the demand for labor declines, and they reportedly respond to this competition in two ways that affect health. Those whose absenteeism stems from risk-taking behavior — alcohol abuse, for example — may try harder to control their problem behavior and thereby achieve better health. Workers with a chronic disease, for their part, may try to work when ill, and their health may suffer for it.

A contracting economy can drive wages down to levels at which people with compensable disabilities stop competing for jobs and accept disability insurance payments. The incidence of disabling illness therefore appears to increase with economic contraction, when it may merely be that people with marginal disabilities have decided to seek diagnosis and assistance.

People who believe they have lost jobs or income for reasons unrelated to their performance understandably feel frustrated. Some “treat” this frustration with alcohol, and others may take it out through aggression against people who cause them anxiety. Researchers often invoke this frustration-aggression mechanism to explain, for example, the relatively high levels of violence among job-losers. Some people may act out their aggression by calling attention to the behavioral or physical deficits of others, which might explain why the use of police power to coerce people perceived as dangerous or disabled into psychiatric treatment reportedly increases when the economy contracts.³

The literature also includes studies, not yet replicated, showing that a contracting economy affects health by distracting or impeding us from adherence to

preventive measures. Researchers report, for example, that the incidence of sudden infant death syndrome increases among black families during times of economic contraction.⁴ Among women with newly detected breast tumors, the ratio of local tumors to those that are more advanced reportedly decreases during bad economic times, suggesting that women may be impeded from undergoing screening.⁵ Other research suggests that economic decline induces autonomic adaptations with implications for health, though it is not always clear what the mechanisms might be. For example, the male-to-female ratio of fetal deaths reportedly rises, whereas that of live births reportedly falls, during economic crises.

Despite the complexities involved in estimating the sum of illness induced and averted by a contracting economy, some researchers claim that historical data suggest we can typically expect a net reduction in illness during bad economic times. Others look at the same history and find no pattern justifying strong expectations.

The implications of our current recession for medical care providers may be less ambiguous, however. Since we appear to be at the outset of a contraction matched

only by the Great Depression and the recession of 1982–1983, the historical data provide little statistical purchase for forecasting our lot. But we can look to the relatively well understood effect of economic contraction on psychological services for an indication of what might happen to the use of medical care during the recession. At the onset of bad economic times, the demand for psychiatric services declines, with fewer visits for “maintenance” but eventually more for acute episodes. “Coerced” treatment increases as society’s tolerance for people with behavioral problems drops. Generalizing from psychiatry, I expect that medical care providers will first see a small decrease in demand as copayments become more onerous, more patients lose their insurance, and some people take fewer risks and perhaps become healthier. People who seek care will be more likely to have insurance and may feel that their employment status and social standing are threatened by society’s lower tolerance for their physical or behavioral deviance. As time passes, however, I would expect to see increased demand for services from people who “deferred maintenance” because of costs and therefore become ill.

These predictions raise ques-

tions that are worth considering. How can we reduce the suffering of job-losers and their family members who will become ill but not seek help at the onset of illness? How can we encourage them to seek care? How can we finance their care if they seek it? Surely, we can devise a plan for those made sick, directly or indirectly, by the failure to regulate our economy. After all, we seem to be at no loss for the cleverness and resources to rescue those who capitalized on that negligence.

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CABG vs. Stenting: Clinical Implications of the SYNTAX Trial

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A video is
available at
NEJM.org

The SYNTAX trial compared coronary-artery bypass grafting (CABG) with percutaneous coronary intervention involving drug-eluting stents for patients with advanced coronary artery disease (results available at NEJM.org). On January 30, 2009, the *Journal* hosted a debate about the clinical implications of the study’s findings that the need for repeat revascularization was significantly lower with CABG, but the risk of stroke was significantly higher. What should the new standard of care be? Watch the video, participate in the poll, and contribute your thoughts at NEJM.org.