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Comment James P. Smith

In their excellent chapter, David M. Cutler, Edward L. Glaeser, and Allison B. Rosen make several salient points. First, trends in most behavioral risk factors are strongly positive. These would include education, smoking, heavy drinking, hypertensive control, and total cholesterol. In contrast, only a few behavioral risk factors are strongly negative, most notable among them are obesity and drinking abstention. When combined into a

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ten-year mortality analysis from National Health and Nutrition Examination Survey (NHANES) I, the good stuff beats out the bad stuff, and mortality rates are predicted to decline significantly based on observed post 1970s trends in these risk factors. More speculatively, they project that these trends will continue unabated in the future, further depressing mortality. The very large caveat they emphasize involves obesity where a continuation of past trends may eventually overwhelm all that is positive.

I think this thought provoking chapter contains a simple but powerful message that disease specific alarmists often miss. Not all is gloomy in American health trends; in fact, just the opposite is the dominant reality. The rhetoric surrounding the very real problem of rapidly rising rates of obesity would make you think the Americans can do nothing right when it comes to taking care of their health and that our health future is a gloomy one indeed. They demonstrate that, when one combines all health behaviors together, on average, Americans did pretty well in taking care of themselves with the rapid decline in smoking getting much of the credit. Their model predicts a substantial decline in mortality, which, in fact, is precisely what happened over the last thirty years.

There are several extensions that would make the chapter or subsequent ones that follow even more valuable. Some of these involve examining within group and within period trends. To illustrate my point, the top panel of table 12C.1 lists current smoking behavior for men ages twenty-five to seventy for the same three education groups used in the Cutler, Glaeser, and Rosen chapter—less than high school, high school graduate, and more than a high school graduate (Smith 2007). These are derived from three NHANES—NHANES II (1976 to 1980), NHANES III (1988 to 1994), and NHANES IV (1999 to 2002). The first three rows in this table are the fraction of men who currently smoke; the last three rows represent different measures of the changes between the waves over time.

As documented in the Cutler, Glaeser, and Rosen chapter, smoking behavior has declined rapidly over this period—almost 15 percentage points among all men between the late 1970s and the turn of this century. However, these trends were far from uniform across either education groups or over time. There was a drop in current smoking of only 6 percentage points among the least-educated compared to a fall of 16 percentage points among the most-educated men. Similarly, the decline in male smoking was much larger between NHANES II and NHANES III (11.1 percentage points) than it was between NHANES III and NHANES IV (5.5 percentage points).

The middle panel of table 12C.1 arrays data in a similar manner, but now the focus is on the fraction of men who are obese. In this case, there are not strong differences across education groups in the time series increase in rates of male obesity. For example, there is a 12.1 percentage point increase in obesity in the lowest education group compared to an 11.1 percentage

Table 12C.1 **Health behaviors by education and calendar year—men ages 25–70**

	Education				
	Low	Middle	High	All	NHANES Waves
			A. Smoking		
1976–1980	49.1	44.8	35.1	42.8	II
1988–1994	44.9	42.8	21.8	33.7	III
1999–2002	43.2	36.6	18.1	28.2	IV
delta	−5.9	−8.2	−16.2	−14.6	IV-II
delta	−4.2	−2.0	−13.3	−11.1	III-II
delta	−1.7	−6.2	−2.9	−5.5	IV-III
			B. Obesity		
1976–1980	12.6	12.2	7.4	10.6	II
1988–1994	24.7	22.2	18.6	21.1	III
1999–2002	28.3	31.1	26.9	28.2	IV
delta	15.7	18.9	19.5	17.6	IV-II
delta	12.1	10.0	11.2	10.5	III-II
delta	3.6	8.9	8.3	7.1	IV-III
			C. Education		
1976–1980	33.2	31.3	35.4		II
1988–1994	23.1	31.1	45.7		III
1999–2002	20.9	24.9	55.1		IV
delta	−12.3	−6.4	19.7		IV-II
delta	−10.1	−0.2	10.3		III-II
delta	−2.2	−6.2	9.4		IV-III

point increase in the highest education group. However, there does appear to be attenuation in the increase in male obesity over time although not as dramatic as what took place in smoking.

The bottom panel of table 12C.1 displays patterns in male education over these three NHANES waves. The decline in the fraction of men without a high school diploma was also concentrated in the 1980s and has subsequently slowed down. As larger fractions of individuals complete high school and then college, schooling advances are inevitably going to slow down. There may still be important advances in the acquisition of skills relevant for promoting good health behaviors, but years of schooling will cease to be a useful index to pick them up.

Combined, these panels of table 12C.1 demonstrate a couple of simple but important facts. First, within-time period trends are quite different across the three education groups that are used in the chapter, and it might be insightful to model them separately. For several reasons, an equally good argument would apply to estimating the mortality model separately for men and women. Second, a use of all the NHANES data available over this period indicates that there has taken place an apparent slowdown in

the trends of most of the behavioral risk factors both good (smoking, education) and bad (obesity).

This possible slowdown in the average improvement in health behaviors might suggest that there may be a slowdown in the improvements in mortality as well. For a different reason outside of simple trends in health behaviors per se, that is unlikely to be the case. For example, in 1978, less than half of those with hypertension were taking some medications to deal with the disease—by 1994, this was over 80 percent (Goldman and Smith 2005). Hypertension is actually a disease that is at least partially taken into account in their mortality models. But hypertension is simply one example of many types of diseases where improved drugs, greater adherence, or more effective medical interventions have all made the consequences of disease—and not simply mortality—much less now than in the past.

The mortality predictions that they make use model coefficients based on 1970s medical technology, but things are most surely getting much better. A good useful first step would evaluate how well their model does in predicting mortality over this period. This would simply involve comparing actual mortality reductions over this period with their predictions. Because they are not taking medical advances into account in their projections, I suspect that they should severely underpredict 1970 to 2000 time-period mortality gains. The same reasoning would lead us to believe that they will also severely underpredict future mortality reductions as well. The extent of the underprediction would not be a bad measure of the medical and other improvements that were taking place at the same time.

At the end of the chapter, they abandon their optimism and start morphing into obesity alarmists. And here I have to start parting company with them. I think that there are many reasons why obesity is not going to be quite the problem that they envision may happen. Over this time period, undiagnosed diabetes fell from half of diabetics being undiagnosed to about one in five (Smith 2007). Diagnosed diabetes is surely better treated than undiagnosed diabetes.

Even though the obesity pill may not be on the near-term horizon, many new effective treatments are available for the principal diseases that are the consequences of obesity—diabetes, heart disease, and arthritis. It surely would be a lot better for them and much cheaper for all of us if more Americans were more concerned about and put more effort into reducing their weight in the first place. But it is equally true that the consequences of having the diseases that are associated with obesity are not as dire as they were twenty, ten, or even five years ago. For each of these obesity-related diseases, far more effective medical treatments are available now than before, a situation that I fully anticipate will continue in the future.

Moreover, it also seems to me highly unlikely that past obesity trends will continue at the rates of the past thirty years. That would result in the

majority of Americans being obese, an implausible scenario that assumes that Americans would not react to the antiobesity campaigns and information about the poor health consequences associated with obesity. As mentioned in the preceding, we have already seen signs that there has been a slowdown in the rate at which obesity has been rising. In sum, projecting mortality consequences of obesity based largely on the medical technology of the early 1970s may seriously overstate the mortality consequences of the disease.

These quibbles on my part should not divert attention from my basic reaction. This is a excellent contribution to the literature that should be read by economists and those who work in health outside of economics. I gained some very valuable insights from this chapter, and they will as well.

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