

Discussion: Federal Role and the Future of Obesity Research

The workshop provided an overview of current health economics research on the causes and consequences of the rise in obesity in the United States. An emerging economic explanation is that both the longrun trend of increasing body mass in the United States over the past century and the more rapid rise since the mid-1970s are related to technological changes that have reduced job strenuousness and increased the consumption of mass-prepared foods. Evidence was presented on some consequences of obesity, such as its impact on wages and insurance costs, as well as on what the rise in its prevalence and some of its potential causes imply for economic theory itself. The importance and challenges of better measurement of energy intakes and expenditures were discussed. Discussion of current work underscored the many questions on obesity that remain open for health economics research.

Future research should seek to consolidate the empirical foundations of consumers' decisionmaking behavior that forms the basis of economic models. These models assume that consumers recognize changes in technology and relative prices and understand how these changes affect the optimality of tradeoffs between short-term pleasure and long-term health. In particular, most models assume that individuals are rational and forward-looking. For instance, lower food prices may or may not induce individuals to raise their food consumption, depending on the importance they place on future health hazards associated with higher weight. However, do individuals fully consider the long-term costs of excessive weight gain when making their current choices? Or despite such knowledge, do individuals face a self-control problem in making appropriate choices? Evidence from behavioral economics suggests that, even if consumers rapidly absorb news about changes in relative prices of current consumption and future outcomes, they may not be able to exercise self-control. Further research should aim to quantify the prevalence of self-control problems in the population and to assess its role in eating and physical activity behaviors.

The behavioral economics framework may also be useful for thinking about the role of the asymmetry in energy balance on food intake and physical activity behaviors—that is, the ease of consuming additional energy vs. the difficulty of expending it. For example, suppose a moderate fast-food meal gives a consumer an extra 600 calories. The physical activity equivalent is approximately 2½ hours of walking, at 3 miles per hour. The opportunity cost of the energy expenditure exceeds the marginal monetary cost of the extra calories by far, unless the future costs of the extra calories and benefits of physical activity are accounted for. Whether consumers consistently account for such time-delayed costs and returns when faced with a current choice is a relevant question.

If the possibility of “irrational” consumer behavior is admitted in economic models, examining producer responses to “irrational” behavior would be worthwhile. For example, would increased marketing and promotion of

calorie-dense foods and increasing portion sizes be an optimal producer response when consumers face self-control problems? Evidence in this regard could influence ways in which public policy alternatives to address obesity are evaluated (Gruber and Mullainathan; 2002, Smith 2003). In the context of producer or industry response, another need is to better understand incentives for firms to supply healthier and less calorie-dense foods. Existing information disclosure policies need to be evaluated to see whether they discourage truthful health claims. At the same time, the response of the food industry to public education programs deserves further inquiry. If manufacturers counter public awareness and behavior modification campaigns by intensifying their advertising efforts, government intervention may not achieve the intended change in consumer behavior.

The extent to which consumers acquire and use information about emerging opportunities, as well as their degree of self-discipline, have been linked to levels of formal education. More-educated individuals may place a higher value on future consumption than present consumption and find choosing activities that carry lower health risks optimal. Education may also increase a person's ability to reassess prior choices in light of new information and accelerate his or her transition to a new optimum. In this context, identifying the aspect of a person's education that leads to variation in acquiring information and the speed of adjustment may be desirable. Indeed, whether formal education is a cause for this variation or whether a third factor, such as time preference, generates the correlation between educational attainment and the choice of body weight is not yet clear.

Consumers' knowledge of the nutrient content of the foods they eat, and of the short-term and long-term risks and benefits of drugs and dietary supplements, constitutes another area of future research. If lack of education in these areas leads individuals to make suboptimal decisions, how federally mandated food labeling regulations and laws regarding the promotion of weight loss products affect consumer choice remains to be shown. In particular, reducing the cost of information may allow consumers to adjust more swiftly to new circumstances.

The relative role of increasing energy intakes vs. the decline in physical activity in the rise in obesity remains a contentious issue. A common ground may be the position that a gradual decline in overall physical activity due to occupational and time-use changes contributed to an underlying long-term trend of increasing body size, and that changes in the amounts and composition of foods have contributed to the more rapid rise of the last two decades. Resolving the energy intake-expenditure split is important in deciding whether policy interventions should focus on food intakes or physical activity.

Disaggregating caloric intake into macronutrient classes (protein, carbohydrates, and fats) also seems worthwhile. Substantial recent attention has focused on this division of caloric intake and its implications for weight gain. According to aggregate production data, consumption of carbohydrates has increased by 28 percent in the past two decades and protein consumption by 18 percent, while fat consumption has increased by only 9 percent. Whether this change in food mix has led to increased weight remains to be investigated.

Another issue concerns the wide disparities in obesity prevalence across demographic groups, as well as the way income affects obesity within demographic groups. For example, while obesity is generally believed to be inversely related to income, data show that body weight may have an inverted U-shaped relationship with income among men. Why these disparities arise is important for resolving questions like the potential coexistence of food insecurity and obesity, as well as for estimating the effect of Federal food assistance programs on obesity.

Future research could seek to identify other potential factors in the rise in obesity, such as smoking cessation campaigns, which may have led successful participants to give up a widely available appetite suppressant; advances in medicine, which may have attenuated the adverse health consequences of obesity by improving both patients' quality and quantity of life; and changing manufacturing patterns in the food industry, which may have made healthy foods more expensive relatively to high-calorie foods with poor nutritive value. Further research is also needed to clarify the direction and magnitude of the effect of food assistance programs on obesity. The effectiveness of nutrition education components in existing programs needs to be assessed, with a view to considering whether further nutrition education investments would be useful.

Future research is also needed on the role of government intervention in addressing the rise in obesity. The presence of externalities is often invoked to justify government intervention. For example, if health care expenditures for the obese are higher than for those of normal weight, obesity prevalence will be socially excessive, unless the cost differential is reflected in weight-specific insurance premiums. Yet whether this externality warrants government intervention, other than allowing insurers to discriminate among enrollees by weight is not clear. Further research should identify circumstances under which private companies cannot internalize externalities and when the government should assist market participants to facilitate coordination and avoid social inefficiencies.

Finally, the unintended consequences of existing government programs should be investigated more closely. This investigation would pertain both to programs that affect food intake, such as measures that effectively tax or subsidize the producers and consumers of food, and to those that affect calorie expenditure, ranging from urban planning to laws regarding the design of workplaces and the regulation of leisure activities. A major area of government regulation is its role in food and drug safety. More research is needed to help minimize obstacles to innovation in the fields of nutrition, food science, and pharmacology to develop solutions to obesity.