



Panel 4.1

Malnutrition in the United States and the UK

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Nutrition is everybody's concern. Many high-income countries are struggling with their own nutrition issues.

In the United States, obesity rates have more than doubled in adults and children since the 1970s (Ogden et al, 2014). While recent estimates suggest that the overall rates of obesity have plateaued or even declined among some groups, obesity is widespread and continues to be a leading public health problem in the United States (Ogden et al. 2014). More than two-thirds (68.5 percent) of US adults are overweight or obese (Ogden et al. 2014), and 31.8 percent of children and adolescents are overweight or obese. Among the majority of sex-age groups, the prevalence of obesity is lower among whites than among blacks and Mexican Americans (May et al. 2013). Many households in the United States suffer from the consequences of overweight and obesity while simultaneously being food insecure. In 2012, 14.5 percent (17.6 million) of US households were food insecure at some time during the year as defined by the US Department of Agriculture.

In the UK, 67 percent of men and 57 percent of women are either overweight or obese (Ng et al. 2014). More than a quarter of children are also overweight or obese—26 percent of boys and 29 percent of girls. In western Europe, the UK lags behind only Iceland, with 74 percent of men and 61 percent of women overweight or obese, and Malta, with 74 percent and 58 percent, respectively (Ng et al. 2014).

These increasing trends of overweight and obesity put individuals at high risk of noncommunicable diseases such as cardiovascular disease, diabetes, and strokes. Ng et al. (2014) estimated that nutrition-related risk factors such as overweight and obesity, high cholesterol, inadequate fruit and vegetable intake, and high blood pressure cause 25 percent of disease and disability each year.

What is driving these high rates of overweight and obesity in high-income countries that have already gone through demographic, epidemiological, and nutrition transitions? Dietary shifts and changes in physical activity due to more sedentary lifestyles and work environments are clearly driving these trends. High-income countries have focused on the increased intake of energy-dense nutrient-poor foods by a majority of the population (Popkin et al, 2012) with a shift from plant-based diets to consumption of highly refined foods, animal-based products (meats and dairy), vegetable oils, sugar, and sugar-sweetened beverages (Popkin et al, 2012). At the same time, much of this shift is due to increased availability of fast-food outlets and marketing and promotion of processed and packaged food products (Keats and Wiggins 2014). Carry-out foods and dining out at restaurants have also increased.

Low socioeconomic status in high-income countries is associated with lower uptake of health-promoting behaviors, including healthy eating (Drewnowski and Darmon 2005). For those living on low incomes in high-income countries, the cost of healthier food is considered an important

barrier to improving the quality of dietary intake (Drewnowski and Darmon 2005; Darmon and Drewnowski 2008).

Regarding physical activity and obesity, living environments—including the layout of town, cities, schools, and workplaces—are crucial to increasing rates of exercise. In 23 out of 36 countries, more than 30 percent of boys and girls aged 15 and over are not getting enough exercise (World Health Organization Regional Office for Europe 2014). Among adults, rates of women who don't engage in enough physical activity range from 16 percent in Greece and 17 percent in Estonia to 71 percent in Malta and 76 percent in Serbia (World Health Organization Regional Office for Europe 2014).

Many suggestions and attempts have been made through policies directed at preventive health to mitigate the obesity trends. Strategies include more substantive and effective communication of health messages and information to increase public awareness of healthy eating and physical activity, fiscal measures and taxes to increase the price of unhealthy food, regulation of marketing of unhealthy foods to children, and improvements in school lunches and physical activity spaces. Some suggestions have been made that structural interventions such as taxation may have a greater impact on health and dietary behaviors than individualized health promotion and education alone. However, Cecchini et al. (2010, 1) argue that “a package of measures for the prevention of chronic diseases would deliver substantial health gains, with a very favorable cost-effectiveness profile.”

Recent data suggest that obesity among children is flattening the United States (Ogden et al. 2012). Another study showed that prevalence of childhood obesity has slowed or leveled off in nine countries, including China, Australia, and England as well as the United States (Olds et al. 2011). Although it is too early to understand what is responsible for this trend, some examples of policy change will be important for countries to consider as they begin to grapple with the issue. Some countries in Europe are addressing the obesity epidemic using a multisectoral government approach. The policy approach in these countries focuses on improvements in school lunches, controlling advertising and marketing to children, taxing junk and overprocessed foods, and promoting physical activity (World Health Organization Regional Office for Europe 2014).

In Denmark, a fat tax on butter, milk, cheese, pizza, meat, oil, and processed food was introduced; however, in 2012, the Danish Tax Ministry abolished the fat tax. Mexico is now following suit with an imposed national tax of one peso per liter (about 10 percent) on sugar-sweetened beverages and 8 percent on junk food. The Navajo Nation, who suffer from diabetes at twice the rate of the rest of the US population, passed two bills that will impose an additional 2 percent sales tax on junk food items in addition to the current sales tax of 5 percent and eliminate sales tax on fresh fruits and vegetables, nuts, and seeds. In the United States, the Food and Drug Administration is leading efforts to ban, through legislation, trans fats from the food supply, with the goal of providing protection from cardiovascular risk.

A recent simulation study, which simulated policy implementation of 20 years directed at school-age children, demonstrated that after-school activity programs would reduce obesity the most among children ages 6–12 (by 1.8 percent), the advertising ban would reduce obesity the least (by 0.9 percent), and the tax on sugary drinks would reduce obesity the most in adolescents ages 13–28 (by 2.4 percent) (Kristensen et al. 2014).

Addressing overweight and obesity and noncommunicable diseases will require action from global to local-level actors. Scaling Up Nutrition should expand its mandate to ensure that countries committed to the movement address the emerging trends of overweight and obesity. Perhaps high-income countries should also commit to the Scaling Up Nutrition movement (and be included) to address their own malnutrition issues. Local authorities and leaders should take an active role in planning urban spaces that allow for physical activity and promote the production, distribution, and consumption of affordable fresh fruits and vegetables and other healthy options in urban centers. Former Mayor Bloomberg of New York City pushed for restaurants and fast-food chains to include calorie counts on menus.

Last, business and the private sector need to be engaged and engage particularly in the areas of advertising of junk food to children and participating in government-led, transparent food labeling for consumers. The private sector has substantive potential to contribute to improvements in nutrition, but efforts to realize this have, to date, been hindered by a “scarcity of credible evidence and trust” (Gillespie et al. 2013, 1). Both of these issues need considerable attention if the positive potential on nutrition is to be realized (Gillespie et al. 2013). Yach (2014) suggests that an open discourse and partnering is essential between public and private sectors if we are to tackle complex food and nutrition issues.

Key areas of intervention include (1) engaging health professionals to provide sound, evidence-based advice of healthy eating and living to patients; (2) promoting community-based programs focused on nutrition and exercise campaigns; (3) protecting children from marketing of unhealthy foods; (4) using fiscal instruments (taxing of sugar-sweetened beverages); (5) mandating simple food-labeling systems that are easy for consumers to interpret; (6) legislating calorie indicators on menus of restaurants and fast-food outlets; (7) ensuring food and nutrition guidelines are followed in school meals, hospitals, and work cafeterias; and (8) planning urban environments that create green space and promote physical activity.

The United States, UK, and other high-income countries need to be held accountable to the World Health Association target to ensure no increase in the number of children under age 5 who are overweight. A whole government-vested approach, such as what other European countries are proposing, should be prioritized.

Cecchini, Michele, Franco Sassi, Jeremy A. Lauer, Yong Y. Lee, Veronica Guajardo-Barron, and Daniel Chisholm. 2010. "Tackling of unhealthy diets, physical inactivity, and obesity: health effects and cost-effectiveness." *The Lancet* 376 (9754):1775-1784.

Darmon, Nicole, and Adam Drewnowski. 2008. "Does social class predict diet quality?" *The American Journal of Clinical Nutrition* 87 (5):1107-1117.

Drewnowski, Adam, and Nicole Darmon. 2005. "Food Choices and Diet Costs: an Economic Analysis." *The Journal of Nutrition* 135 (4):900-904.

Gillespie, Stuart, Lawrence Haddad, Venkatesh Mannar, Purnima Menon, and Nicholas Nisbett. 2013. "The politics of reducing malnutrition: building commitment and accelerating progress." *The Lancet* 382 (9891):552-569.

Keats, Sharada, and Steve Wiggins. 2014. *Future diets: Implications for agriculture and food prices*. London: Overseas Development Institute.

- Kristensen, A. H., T. J. Flottemesch, M. V. Maciosek, J. Jenson, G. Barclay, M. Ashe, . . . R. C. Brownson. 2014. "Reducing Childhood Obesity through U.S. Federal Policy: A Microsimulation Analysis." *Am J Prev Med*. doi: 10.1016/j.amepre.2014.07.011.
- May, A. L., D. Freedman, B. Sherry, and H. M. Blanck. 2013. "Obesity - United States, 1999-2010." *Morbidity and Mortality Weekly Report* 62 Suppl 3:120-8.
- Ng, Marie, Tom Fleming, Margaret Robinson, Blake Thomson, Nicholas Graetz, Christopher Margono, . . . Emmanuela Gakidou. 2014 "Global, regional, and national prevalence of overweight and obesity in children and adults during 1980–2013: a systematic analysis for the Global Burden of Disease Study 2013." *The Lancet* Early online publication (29 May 2014). doi: [http://dx.doi.org/10.1016/S0140-6736\(14\)60460-8](http://dx.doi.org/10.1016/S0140-6736(14)60460-8).
- Ogden, C. L., M. D. Carroll, B. K. Kit, and K. M. Flegal. 2012. "Prevalence of obesity and trends in body mass index among us children and adolescents, 1999-2010." *JAMA* 307 (5):483-490. doi: 10.1001/jama.2012.40.
- Ogden, C. L., M. D. Carroll, B. K. Kit, and K. M. Flegal. 2014. "Prevalence of childhood and adult obesity in the united states, 2011-2012." *JAMA* 311 (8):806-814. doi: 10.1001/jama.2014.732.
- Olds, T., C. Maher, S. Zumin, S. Peneau, S. Lioret, K. Castetbon, . . . C. Summerbell. 2011. "Evidence that the prevalence of childhood overweight is plateauing: data from nine countries." *Int J Pediatr Obes* 6 (5-6):342-60. doi: 10.3109/17477166.2011.605895.
- Popkin, B. M., L. S. Adair, and S. W. Ng. 2012. "Global nutrition transition and the pandemic of obesity in developing countries." *Nutr Rev* 70 (1):3-21. doi: 10.1111/j.1753-4887.2011.00456.x.
- World Health Organization Regional Office for Europe. 2014. Prevention and control of noncommunicable diseases in the European Region: a progress report. Copenhagen: WHO Regional Office for Europe.
- Yach, D. 2014. "Food industry: friend or foe?" *Obes Rev* 15 (1):2-5. doi: 10.1111/obr.12125.