The US Context

Nutrition challenges in the US

This chapter sets out the state of nutrition in the US, the causes of underlying major diet-related diseases, and the role the private sector can play in improving the food environment.

The diet-driven health crisis in the US

Obesity is a critical and costly public health challenge that affects nearly 41.9% of adults¹ and 15.5% of children between the ages of 10 and 17² in the US. Obesity prevalence has increased by 11% since 1999³. During the same time, the prevalence of severe obesity increased from 4.7% to 9.2%⁴, with half of US adults projected to experience obesity by 2030⁵. The latest Dietary Guidelines for Americans 2020-2025 (DGA) emphasize the fact that obesity puts people at risk for many serious chronic diseases, including high blood pressure and high cholesterol (which are risk factors for heart disease). Type 2 diabetes, many types of cancer, as well as higher risk of experiencing strokes, clinical depression and anxiety. It therefore recommends Americans limit foods and beverages higher in added sugars, saturated fat, and sodium. At the same time, the DGA recognize the potential for micronutrient deficiencies, considering calcium, potassium, dietary fiber, and vitamin D the dietary components of public health concern for the general US population because low intakes are associated with health concerns.

In this context, it is more important than ever that companies' nutrition commitments include a specific focus on addressing obesity and diet-related diseases.

Disparities in obesity prevalence

Not all racial, ethnic minority, and income groups are affected by obesity in the same way. It is important to take into account factors that perpetuate and cause obesity when considering solutions to combat obesity. According to the National Health and Nutrition Examination Survey (2021), obesity prevalence was found to be most common in non-Hispanic black adults and families with lower income.⁶ While the exact causes for these disparities are not known, they likely reflect the differences in social and economic advantage related to race, ethnicity, and income, where groups of people have systematically experienced greater social and economic obstacles to health.⁷ Underlying risks that may help explain disparities in obesity prevalence could include higher rates of unemployment, increased levels of food insecurity, greater access to poor quality foods, less access to convenient places for physical activity, targeted marketing of unhealthy foods, and poor access to health care.8

Obesity and COVID-19

Recent research suggests that obesity increases the risk of severe illness from COVID-19 among people of any age,⁹ including children.¹⁰ People who are overweight may also be at increased risk. The Centers for Disease Control and Prevention (CDC) estimated that obesity may triple the risk of hospitalization due to COVID-19 infection.¹¹ In addition, with increasing BMI,¹² the risk of intensive care unit admission, invasive mechanical ventilation, and death are higher¹³ One study estimated that more than 900,000 adult COVID-19 hospitalizations occurred in the US between the beginning of the pandemic and November 18, 2020, and nearly 30% of these hospitalizations were attributed to obesity.¹⁴

Consequences of obesity

People who have obesity, compared to those with a healthy weight, are at increased risk for many serious diseases and health conditions. In addition, obesity and its associated health problems have a significant economic impact on the US health care system. Obesity in children and adults increases the risk for various health conditions, including high blood pressure and high cholesterol, which are risk factors for heart disease; Type 2 diabetes; breathing problems, such as asthma and sleep apnea; joint problems, such as osteoarthritis and musculoskeletal discomfort; and gallstones and gallbladder disease.¹⁵¹⁶¹⁷ Adults with obesity also have higher risks for stroke, many types of cancer, premature death, and mental illness such as clinical depression and anxiety.¹⁸

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Healthcare costs of obesity

Healthcare costs are especially higher for people who are overweight or living with severe obesity. Recent research found that health care expenditures are higher for those with excess weight across a wide range of ages and BMI levels, with especially high costs for people with severe obesity. Although childhood obesity contributes to a small proportion of total obesity-related medical costs, excess weight in childhood is a strong predictor of adult obesity. As such, policies to prevent excess weight gain at all ages are needed to mitigate the health and economic impact of the obesity epidemic, which accounts for over \$170 billion in excess medical costs per year in the United States.¹⁹ Annual nationwide productivity costs of obesity-related absenteeism range between \$3.38 billion (\$79 per individual with obesity) and \$6.38 billion (\$132 per individual with obesity).²⁰ Direct medical costs may include preventive, diagnostic, and treatment services. Indirect costs relate to sickness and death includes lost productivity - such as employees being absent from work for obesity-related health reasons, decreased productivity while at work, and premature death and disability.²¹

Food and nutrition insecurity

When we think about the reasons why obesity impacts certain racial, ethnic, and income groups harder than others, it has a lot to do with opportunities to make healthy choices. With the economic devastation from the pandemic, food security is now more difficult to achieve. In 2020, an estimated one in eight Americans were food insecure, equating to over 38 million individuals, including almost 12 million children.²² Extensive research reveals food insecurity is a complex problem. Many people do not have the resources to meet their basic needs; challenges which increase a family's risk of food insecurity. Food insecurity does not exist in isolation, as low-income families are affected by multiple, overlapping issues - like lack of affordable housing, social isolation, economic/social disadvantage resulting from structural racism, chronic or acute health problems, high medical costs, and low wages.

Together, these issues are important social determinants of health, defined as²³ the "conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks."²⁴ For effective responses to food insecurity, it is important to address the overlapping challenges posed by the social determinants of health.

While food security implies access to enough food for an active, healthy life,²⁵ it is also important to consider how the quality of our diets can help reduce diet-related diseases. This is captured in the United States Department of Agriculture's (USDA) commitment to enhancing (food and) nutrition security. It defines nutrition security as *all* Americans having consistent access to the safe, healthy, affordable foods that are essential to optimal health and wellbeing. It also emphasizes equity and the need to tackle long-standing health disparities.²⁶

Dietary quality

The quality of diet is one of the major contributors in the development of obesity. Infant breastfeeding, intake of sugar-sweetened beverages, and fast-food consumption, as well as the content of family meals, all impact the prevalence of obesity.²⁷ Lower socio-economic status of many racial and ethnic minorities is a major contributor to suboptimal diets and can be associated with the consumption of calorie-dense foods with less nutritional value – including those high in saturated fats and hydrogenated or partially hydrogenated oils, compared to more balanced diets consisting of healthier options like fresh fruits and vegetables and lean proteins, which are more likely to be consumed by members of wealthier socio-economic backgrounds.²⁸²⁹³⁰

Choices of less nutritious dietary options among certain groups are not a result of lack of knowledge about healthy foods, but instead the perception of the cost of healthy foods.³¹ This perception is not necessarily incorrect. Foods purchased in stores that are higher in nutrients associated with decreased risk for chronic disease - such as those high in dietary fiber, vitamins A, C, D, E, and B-12, beta carotene, folate, iron, calcium, potassium, and magnesium - often cost more than foods with nutrients high in trans fats, saturated fats, and added sugar.³² However, diets consisting mainly of prepared foods purchased from convenience stores and fast-food chains, as opposed to those purchased from whole food stores, are on average more expensive.³³ However, these estimates of food cost do not consider problems, such as food deserts, lack of access to stores with healthy food, and the effort and time that purchasing and preparing healthy food may take: All factors that may contribute to poor diet both in adults and children from low socio-economic backgrounds.

Role of the packaged food & beverage industry

The US food industry is one of the largest in the world. According to the USDA, in 2021, US consumers, businesses, and government entities spent \$2.12 trillion on food and beverages and out-from-home meals and snacks ³⁴. According to Euromonitor, the US retail sales values of packaged food and non-alcoholic beverages are expected to reach 700 billion by 2025. In doing so, companies are also able to prioritize nutrition efforts, make them better, and scale them up over time.

The COVID-19 pandemic underscored the correlation between nutrition and health, with a subsequent increased interest in health and wellness demonstrated by consumers and regulators. Foodservice closures and capacity limitations to prevent the spread of the virus led to large spikes in retail demand for packaged food.³⁵

<u>ATNI's research</u> into the food and beverage companies' responses showed that, while some companies benefitted from increased at-home demand, declines in food service and away-from-home sales offset those gains.

Availability, access, and affordability of packaged foods

The clearest way in which companies can contribute to healthier food environments is by improving the nutritional quality of the products available on store shelves. In addition to reducing levels of nutrients of concern, such as sodium and sugar, in their products (inline with the Dietary Guidelines for Americans), companies can also deliver more positive ingredients and nutrients, such as fiber, wholegrains, fruit and vegetables, and essential micronutrients, in their products. However, healthier foods are typically priced higher than less healthy options.3 Given that low-income households spend an average of 30% of their income on food (compared to 10% for the average American household), price considerations inevitably supersede nutrition guality as a priority for millions of Americans (especially in the current cost-of-living crisis). Therefore, food & beverage manufacturers can make a real difference by offering a wide range of nutritious products at affordable prices at a greater rate than less healthy products.

Another important factor is the accessibility of these products, defined as whether they are readily obtainable by individuals in all geographic locations or not. According to the latest Dietary Guidelines for Americans, access is "influenced by diverse factors, such as proximity to food retail outlets (e.g., the number and types of stores in an area), ability to prepare one's own meals or eat independently, and the availability of personal or public transportation. The underlying socioeconomic characteristics of a neighborhood also may influence an individual's ability to access foods to support healthy eating patterns."

The US Department of Agriculture's (USDA) 2017 study ³⁶ on food access found that 39m people (12%) in the US live in low-access communities – where at least a third of the population lives over a mile from a supermarket or large grocery store (in urban areas), or more than ten miles away (in rural areas). These are associated with low access to affordable fruits, vegetables, wholegrains, lowfat milk, and other foods that make up a healthy diet. One study has also found a positive association between living in low-access communities and obesity. Companies therefore have a role to play in ensuring their healthier, affordable products are distributed in low-access communities at an equal or greater rate than less healthy alternatives.

Marketing and labeling

High levels of food marketing, including advertising and promotion, have also been shown to play a substantial role in influencing consumer choice. Food marketing directed to both adults and children of all ages often disproportionally promotes unhealthy foods, such as snacks and drinks high in saturated fat, sugar, calories, and salt. In the US, the primary approach to addressing this issue is through self-regulatory initiatives. For the general consumer, the gold standard in responsible marketing is the ICC Framework for Responsible Food and Beverage Marketing Communications, which sets out general principles governing all marketing communications³⁷. Meanwhile, regarding marketing to children, self-regulatory initiatives include the Children's Food and Beverage Advertising Initiative (CFBAI) and Children's Advertising Review Unit (CARU), both administered by the Better Business Bureau (BBB).

Moreover, by providing comprehensive and easily understandable information about the nutritional composition and potential health impact of their products through labeling, companies can help consumers choose the right products to contribute to healthy diets³⁸.

The workplace

The workplace also represents a key food environment for millions of Americans, and the many thousands that work for these companies. Companies can lead by example by providing healthy food at work, nutrition education, nutrition-focused health checkups, and breastfeeding support. Studies³⁹ have found positive associations of such programs with productivity and cognitive ability, along with reduced absenteeism, medical costs, and rates of accidents/mistakes. Workforce nutrition programs can also increase employee morale and motivation, improve employer/employee relations, and reduce staff turnover. In addition to these benefits, such programs can help facilitate a company culture with a greater focus on nutrition in its business practices.

The White House Conference on Hunger, Nutrition, and Health

2022 marks an important time for food and nutrition in the US, with the second White House Conference on Nutrition, Hunger, and Health, held in September 2022. The first White House conference on hunger was held in 1969 at the start of the Nixon administration and helped to greatly expand federal feeding programs. The 2022 conference aimed to catalyze the public and private sectors around a coordinated strategy to accelerate progress and drive transformative change in the US to end hunger, improve nutrition and physical activity, and end the disparities surrounding them.

It is more important than ever for the food and beverage sector to step up and make a difference to facilitate healthier diets for everyone, everywhere, in America. This section has presented several ways through which food and beverage companies' can increase their nutrition efforts, including, among others, product (re)formulation, prioritized marketing of healthier products, labeling, and responsible lobbying. ATNI encourages all companies to step up their efforts to contribute towards healthier diets.

Footnotes

- CDC. (2022). Adult obesity facts. Available at: https://www.cdc.gov/obesity/data/adult.html. (Accessed: 06/09/202 2).
- 2. State of Childhood Obesity 2020
- CDC. (2022). Adult obesity facts. Available at: https://www.cdc.gov/obesity/data/adult.html. (Accessed: 06/09/202 2).
- CDC. (2022). Adult obesity facts. Available at: https://www.cdc.gov/obesity/data/adult.html. (Accessed: 06/09/202 2).
- Ward ZJ, Bleich SN, Cradock AL, Barrett JL, Giles CM, Flax C, et al. (2019). Projected US State-Level Prevalence of A dult Obesity and Severe Obesity. N Engl J Med.; 381(25):2440–2450. pmid:31851800
- Stierman, B., et al. (2021). National health and nutrition examination survey 2017 March 2020 prepandemic data file s development of files and prevalence estimates for selected health outcomes. Available at:. https://stacks.cdc.gov/vie w/cdc/106273. (Accessed: 12/08/2022).
- Krueger PM, Reither EN. (2015). Mind the gap: race/ethnic and socioeconomic disparities in obesity. Curr Diab Rep 2 015;15(11):95.
- 8. Romieu I, Dossus L, Barquera S, Blottière HM, Franks PW, Gunter M, et al. (2017). Energy balance and obesity: what ar e the main drivers? Cancer Causes Control 2017;28(3):247–58.
- 9. CDC. (2022). Medical conditions. Available at: https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/p eople-with-medical-conditions.html#obesity. (Accessed: DD/MM/YY).
- **10.** Kompaniyets, Lyudmyla, et al. (2021). "Underlying medical conditions associated with severe COVID-19 illness among children." JAMA network open 4.6.
- 11. CDC. (2022). Adult obesity is increasing. Available at: https://www.cdc.gov/obesity/data/obesity-and-covid-19.html. (Accessed: DD/MM/YY).
- Kompaniyets L, Goodman AB, Belay B, et al. (2021). Body Mass Index and Risk for COVID-19–Related Hospitalizatio n, Intensive Care Unit Admission, Invasive Mechanical Ventilation, and Death — United States, March–December 2020. MMWR Morb Mortal Wkly Rep 2021;70:355–361.
- Simonnet, A., Chetboun, M., Poissy, J., Raverdy, V., Noulette, J., Duhamel, A., ... & LICORN and the Lille COVID-19 and Obesity study group. (2020). High prevalence of obesity in severe acute respiratory syndrome coronavirus-2 (SARS-C oV-2) requiring invasive mechanical ventilation. Obesity.
- O'Hearn M, Liu J, Cudhea F, Micha R, Mozaffarian D. (2021). Coronavirus Disease 2019 Hospitalizations Attributable to Cardiometabolic Conditions in the United States: A Comparative Risk Assessment Analysis. Journal of the American H eart Association. 2021 Feb;10(5):e019259.
- NHLBI. (2013.) Managing Overweight and Obesity in Adults: Systematic Evidence Review from the Obesity Expert Pa nel. Available at: https://www.nhlbi.nih.gov/health-topics/managing-overweight-obesity-in-adults. (Accessed DD/MM/ YY).
- **16.** NHLBI. (1998). Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adult s. Available at: https://www.ncbi.nlm.nih.gov/books/NBK2003/. (Accessed DD/MM/YY).
- 17. Bhaskaran K, Douglas I, Forbes H, dos-Santos-Silva I, Leon DA, Smeeth L. (2014). Body-mass index and risk of 22 sp ecific cancers: a population-based cohort study of 5.24 million UK adults. Lancet. Aug 30;384(9945):755-65.
- CDC. (2022). Health conditions. Available at: https://www.cdc.gov/obesity/basics/consequences.html. (Accessed D D/MM/YY).
- Ward, ZJ, Bleich, SN, Long, MW, and Gortmaker, SL. (2021). Association of body mass index with health care expendit ures in the United States by age and sex. Available at: https://journals.plos.org/plosone/article?id=10.1371/journal.po ne.0247307#pone.0247307.ref003. (Accessed DD/MM/YY).
- 20. Trogdon JG, Finkelstein EA, Hylands T, Dellea PS, Kamal-Bahl. (2008). Indirect costs of obesity: a review of the current literature. Obes Rev.2008;9(5):489–500.
- **21.** Hammond RA and Levine R. (2010). The economic impact of obesity in the United States. Diabetes, metabolic syndro me and obesity:targets and therapy. 2010;3:285-295.
- 22. Coleman-Jensen, A., et al. (2020). Household food security in the United States in 2019. Available at: https://www.ers. usda.gov/webdocs/publications/99282/err-275.pdf?v=228.1. (Accessed: 20/06/22).
- 23. Office of Disease Prevention and Health Promotion. (n.d.). Social determinants of health. https://www.healthypeople.g ov/2020/topics-objectives/topic/social-determinants-of-health. (Accessed 12/08/2022).
- 24. Hunger + Health. (n.d.). What is food insecurity? Available at: https://hungerandhealth.feedingamerica.org/understand -food-insecurity/#_ftn3. (Accessed: 12/08/2022).
- **25.** USDA. (2022). Definitions of food security. Available at: https://www.ers.usda.gov/topics/food-nutrition-assistance/fo od-security-in-the-u-s/definitions-of-food-security/. (Accessed: 20/06/22).
- 26. USDA. (n.d.). Food and nutrition security. https://www.usda.gov/nutrition-security. (Accessed: 20/06/22).
- 27. Byrd, AS, Toth, AT, and Stanford, FC. (2018). Racial disparities in obesity treatments. Available at: https://www.ncbi.nlm. nih.gov/pmc/articles/PMC6066592/. (Accessed: DD/MM/YY).

- 28. Schmidt M, Affenito SG, Striegel-Moore R, Khoury PR, Barton B, Crawford P, et al. (2005). Fast-food intake and diet qu ality in black and white girls: the National Heart, Lung, and Blood Institute Growth and Health Study. Arch Pediatr Adol esc Med. 2005;159(7):626–31.
- 29. Taveras EM, Gillman MW, Kleinman K, Rich-Edwards JW, Rifas- Shiman SL. (2010). Racial/ethnic differences in early-li fe risk factors for childhood obesity. Pediatrics. 2010;125(4):686–95.
- **30.** Parks EP, Kumanyika S, Moore RH, Stettler N, Wrotniak BH, Kazak A. (2012). Influence of stress in parents on child ob esity and related behaviors. Pediatrics. 2012;130(5):e1096–104.
- **31.** Acheampong I and Haldeman L. (2013). Are nutrition knowledge, attitudes, and beliefs associated with obesity among low-income Hispanic and African American women caretakers? J Obes. 2013;2013: 123901.
- **32.** Denny S. (2012). Is there research to support the statement that healthy diets cost more? J Acad Nutr Diet. 2012;112 (9):1504.
- **33.** McDermott AJ and Stephens MB. (2010). Cost of eating: whole foods versus convenience foods in a low-income mod el. Fam Med. 2010;42(4):280–4.
- **34.** USDA. Food Prices and Spending. Available at: https://www.ers.usda.gov/data-products/ag-and-food-statistics-charti ng-the-essentials/food-prices-and-spending/ (Accessed: 20/6/22).
- **35.** Euromonitor International. (2020). Packaged food in the US. Available at: https://www.euromonitor.com/packaged-foo d-in-the-us/report. (Accessed: 20/6/22).
- **36.** USDA. Food Prices and Spending. Available at: https://www.ers.usda.gov/data-products/ag-and-food-statistics-charti ng-the-essentials/food-prices-and-spending/ (Accessed: 20/6/22).
- International Chamber of Commerce (ICC). (2019). Framework for Responsible Food and Beverage Marketing Communications 2019. Available at: https://iccwbo.org/publication/framework-for-responsible-food-and-beveragemarketing-communications/. (Accessed: 20/06/22).
- Dumoitier A, Abbo V, Neuhofer ZT, McFadden BR. (2019). A review of nutrition labeling and food choice in the United States. Obes Sci Pract;5(6):581-591. doi: 10.1002/osp4.374. PMID: 31890249; PMCID: PMC6934427.
- 39. Berry, L., Mirabito, A. & Baun, W. B. (2010) 'What's the hard return on employee wellness programs?' Harv. Bus. Rev. 88, 104–112, 142; Chapman, L. (2012) 'Meta-evaluation of worksite health promotion economic return studies: 2012 updat e.' Am. J. Health Promot. 26; see also GAIN (2019a) 'The evidence for workforce nutrition programmes', Available at: ht tps://www.gainhealth.org/sites/default/files/publications/documents/evidence-for-workforce-nutrition-programmes-overview-2019.pdf (accessed 18 November 2021).

