

## VIEWPOINT

## Prioritizing Nutrition Security in the US

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The prevalence of nutrition-sensitive conditions such as obesity and type 2 diabetes has increased substantially in the US during the past 30 years. These conditions, combined with other diet-related ones such as cardiovascular diseases and certain cancers, are associated with the majority of morbidity, mortality, and health care spending nationally. Simultaneously, income inequality has increased, with accompanying self-reported food insecurity disproportionately affecting individuals with lower incomes. Food insecurity has been defined as the state of being without reliable access to a sufficient quantity of affordable, nutritious food, and in 2019 was estimated to affect 10.5% of US households.<sup>1</sup> Food insecurity and poor nutrition are closely linked: individuals who report being most food insecure also have higher risks of developing obesity, diabetes, hypertension, coronary disease, stroke, cancer, and associated conditions, even after adjusting for other risks such as age, sex, employment, marital status, race/ethnicity, smoking, insurance status, family size, education, and income.<sup>2</sup>

For decades, US policies to address hunger and food insecurity have focused largely on providing sufficient calories or quantities of food. However, effectively addressing the current diet-related challenges in the US will require a shift beyond these concepts to the broader concept of nutrition security. Addressing nutrition security, which can be defined as having consistent access, availability, and affordability of foods and beverages that promote well-being and prevent (and if needed, treat) disease, may be the next needed approach to inform clinical care and public policy.

### The Shift From Hunger to Food Security

The first and only White House Conference on Food, Nutrition, and Health was held in 1969.<sup>3</sup> Hunger (ie, insufficient caloric intake) was a significant driver of diseases in US children then, including stunted growth and kwashiorkor. This bipartisan conference led to most of the antihunger programs in the US today, including standardization and expansion of the Food Stamp Program (now the Supplemental Nutrition Assistance Program [SNAP]) and the National School Lunch Program; creation of the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and the national School Breakfast Program; and new consumer protections such as the Nutrition Facts label. During the next 2 decades, these programs were effective at providing sufficient calories to reduce hunger and were complemented globally by the Green Revolution, which was a deliberate investment in agricultural technologies to expand yields of specific staple crops such as wheat, maize, and rice, which increased available calories. Caloric insufficiency was largely eliminated in the US and greatly reduced globally; yet disparities remained in access to healthy and affordable food, and at the same time the prevalence of obesity in the US increased significantly.

The 1996 World Food Summit recognized the need to prioritize these more complex challenges by shifting from an emphasis on hunger to food security. Rather than focusing only on sufficiency of calories, food security should ideally incorporate stable availability of and access to food that is safe, nutritious, and consistent with food preferences. During the last 2 decades, this concept has helped scientists and governments better measure the prevalence and effects of food insecurity on physical (eg, chronic diseases), mental (eg, social well-being), behavioral (eg, dietary habits), and education outcomes. Health care systems are now increasingly recognizing the links between food security and well-being, and many have added screening for food insecurity in partnership with professional medical organizations and antihunger organizations. Health care clinicians and the social safety net are also increasingly partnering to better address food insecurity through referrals to food banks, helping eligible patients enroll in federal nutrition assistance programs, and even providing food. Mostly short-term trials and quasi-experimental studies find that food-pantry-based interventions improve food security, intake of fresh produce, and, in 1 study among people with diabetes who were provided with food and diabetes management, glycemic control.<sup>4</sup> However, there are no long-term data that these approaches will effectively improve patient outcomes, particularly rates of obesity. With the COVID-19 pandemic, the concept of food security has been important for documenting and raising public awareness of significant new food system disruptions.

Yet simultaneously, many policies and programs to address food security continue to place a greater emphasis on access to quantity, rather than quality, of food. The prevalence of obesity and diabetes is at an all-time high, with highest risk among individuals who are food insecure. Traditionally marginalized minority groups, as well as people living in rural and lower-income counties, are more likely to experience disparities in nutrition quality, food insecurity, and corresponding diet-related diseases. Clearly, the current approach is not sufficient.

### The Need to Shift From Food Insecurity to Nutrition Security

Although the strict definition of food security includes access to and availability of nutritious foods, in practice, the dimension of nutrition has often been overlooked or disregarded, with associated adverse consequences. Clinical and public health screening tools used widely to measure food insecurity include no assessments of diet quality or nutrition. For instance, the full 2000 US Department of Agriculture (USDA) 18-question Household Food Security assessment (one criterion standard measure) includes no questions about nutrition (the term "balanced meal" is mentioned twice). SNAP, the largest federal nutrition assistance program, has only minor investments to

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improve nutrition. For example, SNAP-Education, a federal program to help people participating in or eligible for SNAP lead healthier lives, reaches only approximately 15% of SNAP participants.<sup>5</sup> In the 2018 Farm Bill (PL 115-334), the fruit and vegetable incentive program in SNAP (known as GusNIP) received only approximately \$1.25 per SNAP recipient per year.

Internationally, efforts to address food have historically considered undernutrition and overnutrition as separate or even opposing concepts (while failing to appreciate the conceptual paradox of the term “overnutrition”). Even forward-looking intergovernmental reports explicitly discuss “food security and nutrition” as 2 different terms,<sup>6</sup> which are recognized as interrelated but still separate concepts operating in different silos.<sup>7</sup> Antihunger and nutrition/public health advocates often have different perspectives, with food security and nutrition viewed as differing or competing priorities; therefore, these groups have been historically divided and produced limited strategic combined efforts to advance food security and nutrition goals.

### Prioritizing Nutrition Security

To effectively address the contemporary challenges of diet-related diseases and disparities and combine historically siloed areas of focus, the new concept of nutrition security should be embraced and normalized. In clinical care, this approach could foster new goals and investments in nutrition-relevant interventions for lower-income patients, such as produce prescription programs and medically tailored meals, as well as nutrition education for health care professionals. Government food policies and food assistance programs could update their screening tools, metrics of success, and corresponding actions to prioritize nutrition security. The USDA, for example, could adopt new nutrition standards across their array of 15 federal nutrition assistance programs, which could include additional restrictions on unhealthy foods or at least strategic economic incentives and disincentives to promote more nutri-

tious choices. A focus on nutrition security also could accelerate the trends in food banks and the broader charitable food network to identify and provide more healthful foods and beverages through new metrics, standards, and processes that provide greater emphasis on nutrition.<sup>8</sup>

An emphasis on nutrition security also could serve as a better guide for public health investments and national research, for which a growing coalition of antihunger, clinical, public health, and business groups recognizes the critical need for a stronger evidence base to accelerate food and nutrition solutions.<sup>9</sup> From a societal standpoint, because poverty and food insecurity are closely associated, efforts must be made to reduce the level of poverty in the US. The Food and Agriculture Organization and the World Health Organization, among others, could embrace the concept of nutrition security through guidance and policy documents, with review of whether and how member states are integrating this new emphasis.

To maximize success and avoid adverse consequences, this shift to focus on nutrition security must be accompanied by careful evaluation of validity, reliability, and feasibility of appropriate screening tools and metrics of success, as well as of the effectiveness, equitability, and costs of corresponding interventions. Conventional measures of food security should be incorporated, given relations to outcomes and established trends. Yet nutrition insecurity may be even more prevalent: 56% of US children are estimated to have diets of poor nutritional quality.<sup>10</sup>

### Conclusions

Science is meant to evolve with new evidence. The health profile in the US looks very different from that of half a century ago when hunger was prioritized, and from several decades ago when food insecurity became the focus. In recognition of rapid increase in the prevalence of several diet-related diseases and long-standing racial disparities in access to nutritional foods and diet-related conditions, it is time to embrace the concept of nutrition security.

#### ARTICLE INFORMATION

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