To address obesity and diet-related chronic diseases in the United States, organizations such as the Robert Wood Johnson Foundation and the Institute of Medicine have encouraged the use of voluntary engagement strategies among stakeholders. By using public-private partnerships as well as networks, alliances, and coalitions, voluntary engagement can translate evidence-informed dietary recommendations into effective policies and actions and into innovative products and services. We offer six guiding principles and a decision-making framework that stakeholders can use to ensure that partnerships are accountable and effective in their pursuit of health-related goals. We apply the principles and framework to four national partnerships of US food, beverage, and food retail industry stakeholders working to prevent child obesity and to promote healthy food environments through product reformulation and healthy food retail incentives. We conclude that partnerships should be evaluated for their synergy, accountability, and effectiveness at achieving the partners’ objectives. Independent evaluations will help build credibility and public trust in the capacity of voluntary engagement strategies to promote healthy food environments and positively influence public health.

Healthy food environments, which are a critical element of a culture of health, are characterized by the economic, policy, and sociocultural conditions and opportunities that provide populations with regular access to a healthy and affordable diet to prevent obesity and diet-related chronic diseases. One goal of multisectoral efforts to create a culture of health in the United States is to achieve transformative systems change, so that healthy food environments, along with active living environments, are the norm for all Americans.

While healthy food environments are not yet the norm, there are encouraging signs that US childhood obesity rates have declined in recent years. Yet nearly one-third of American children and adolescents remain overweight (14.9 percent) or obese (16.9 percent), and two-thirds of adults are overweight (34.3 percent) or obese (34.9 percent), with higher rates among various racial and ethnic groups. Reducing the total US obesity rate by 5 percent could lead to more than $29 billion in health care savings over five years. Unhealthy food environments are a significant driver of US obesity rates. They place a plethora of highly palatable, inexpensive, energy-dense yet nutrient-poor food and beverage products in the marketplace. Ready-to-eat processed con-
venience food and beverage products currently account for 65–75 percent of all calories purchased by US households and 57 percent of the salt, 52 percent of the saturated fat, and 75 percent of the added sugars in Americans’ diet. The Institute of Medicine (IOM) has recommended that people consume no more than 2,300 milligrams of sodium (one teaspoonful) per day, but the average American consumes more than 3,600 milligrams (about 1.5 teaspoonfuls) per day. The 2015 Dietary Guidelines Advisory Committee recommended that a maximum of 10 percent of total daily calories come from added sugars and the same maximum come from saturated fat, but 90 percent of Americans exceed this amount. The committee’s recommendation that 10 percent or less of added sugars should be consumed by adults per day represents no more than 50 grams (12 teaspoonfuls) of added sugar, which would provide about 200 calories for a 2,000-calorie diet. But Americans consume nearly double that amount, with about 83 grams (20 teaspoonfuls) of total daily calories coming from added sugars.

To tackle obesity and diet-related chronic diseases, many authoritative bodies—including the Robert Wood Johnson Foundation, IOM, American Heart Association, and Centers for Disease Control and Prevention (CDC)—have encouraged food and nutrition stakeholders (including food growers, manufacturers, retailers, restaurants, and nongovernmental organizations [NGOs]) to use voluntary engagement strategies instead of legislative and regulatory channels to address complex food environment issues.

Reasons For Partnership Engagement
Beginning in the 1970s the United States adopted a neoliberal governance model that fostered government deregulation, the privatization of public services, and the promotion of voluntary engagement strategies with industry and NGOs to address complex societal problems. Given this history, modern health policy makers generally prefer public-private partnerships over legislation to improve health outcomes. In 2014 CDC director Thomas Frieden identified partnerships as one of six components necessary to ensure that public health programs will influence population health.

Government, industry, foundations, businesses, and public-interest NGOs pursue public-private partnerships to generate food and nutrition research that benefits public health, to generate commercial profit, or both. The partnerships are also created to support research and health promotion policies and programs or to advocate for actions that support the availability, accessibility, and affordability of healthy food and beverage products that will benefit the population’s health.

Guiding Principles And A Decision-Making Framework
Principles were proposed in 2014 by representatives of US government agencies, the food industry, and professional nutrition societies to guide research partnerships. Yet there has been no agreement on universal principles or a process to guide all types of partnerships that support nonresearch goals, including the development and implementation of policies or the design and delivery of programs and services to communities. Moreover, few evaluations have demonstrated the added value of partnerships through processes such as synergistic actions or other outputs, such as the number of companies engaged, the number of calories or grams of sodium removed from the US food supply, or successful policy implementations that positively influence food environments.

These shortcomings led us to describe six prin-
principles to guide public-private partnerships, drawing on lessons from several sources, and to create a six-step decision-making framework based on existing models to pursue healthy food environments. The six guiding principles and corresponding decision-making steps are presented below (for additional details about them, see online Appendix Exhibit A1).

**PUBLIC INTEREST AND INNOVATION** The first principle is that public-private partnerships should provide maximum benefits to society; create publicly available outputs; and innovate to add value to research, knowledge translation, and direct-service programs for communities. Step 1 in the framework is for organizations to clarify achievable goals and objectives through which the partnership can benefit public health or the public in general.

**PARTNER DIVERSITY AND COMPATIBILITIES** The second principle is to encourage diversity of partners and maximize compatibilities to help the public-private partnership raise the visibility of nutrition, food, and health topics on political agendas; secure stakeholder support for specific food or nutrition policies; mobilize financial and in-kind resources—including expertise, products with healthy nutrition profiles, and access to proprietary data (data created by a company to allow it to control and protect its competitiveness)—to inform evaluations; facilitate technology transfer; strengthen food delivery systems; and reach targeted populations. Step 2 in the framework is for potential partners to conduct due diligence using available tools to assess their compatibilities and convergence or divergence of interests before forming a partnership.

**PRAGMATIC AND ANTICIPATORY PLANNING** The third principle is to conduct pragmatic and anticipatory planning to address tensions, biases, and potential conflicts of interest associated with the partnership. Without this planning, government agencies and NGO partners could engage in dishonest practices by accepting corporate funding or food and beverage products from partners without ensuring that any cobranding, sponsorships, and product endorsements with food, beverage, food retail, and restaurant companies will align with recommended US dietary guidelines. Step 3 in the framework is for partners to design a plan to manage these potential tensions, biases, and conflicts of interest. It also requires each business, government, or NGO partner to adhere to established codes of conduct, guidelines for responsible corporate sponsorship, and policies to disclose and manage conflicts of interest.

**GOVERNANCE AND STEWARDSHIP** The fourth principle is that the partners should develop a governance structure that clarifies their roles and responsibilities. Partners should also commit to the prudent stewardship of financial and in-kind resources to achieve their shared goals and objectives. Step 4 in the framework is to develop a formal agreement to clarify the terms of partners’ engagement and disengagement.

**ACCOUNTABILITY FOR OUTPUTS AND OUTCOMES** The fifth principle is that partners must be accountable to each other and to affected stakeholders, including citizens—an important principle that extends beyond transparency of information and activities. Step 5 in the framework is to establish objective performance metrics for the partnership. Partners should designate an independent body to monitor and evaluate the partnership’s outputs and outcomes, communicate the evaluation results to interested and affected stakeholders, recognize and praise accomplishments, reduce incentives for nonparticipation or underperformance, and strengthen accountability systems.

**COMMUNICATION AND CLOSURE** The sixth principle is to use clear and effective communication among all partners and with external stakeholders through the partnership development and execution phases. Step 6 in the framework is for partners to agree on consistent messages to convey their progress, challenges, achievements, and continuity or closure to diverse audiences.

### Partnerships Used To Transform Food Environments

To highlight the effectiveness of the six guiding principles, we provide below real-world examples of four national partnerships that aim to improve nutritional health outcomes. For details about each partnership’s goals, outputs, and future direction, see Appendix Exhibit A2.

**PARTNERSHIP FOR A HEALTHIER AMERICA AND CHILD OBESITY PREVENTION** The Partnership for a Healthier America is a nonprofit NGO founded in 2010 in conjunction with, but independent from, First Lady Michelle Obama’s Let’s Move! campaign. Its goal is to negotiate, compile, verify, and monitor commitments made by businesses and NGOs to reduce US child and adolescent obesity rates. Since its founding, the partnership has released three progress reports, of which the most recent documents the public commitments of 150 public- and private-sector partners to address child obesity across five pledge areas, including expanded access to healthy food choices.

The partnership has established guidelines for partners’ commitments and clarified the bene-
fits of participating, and all of this information is available for public review. To uphold accountability, partner outputs are verified by a third-party NGO.\textsuperscript{27} The partnership is a transformational one whose association with the First Lady has built credibility for its nonadversarial and nonpartisan approach to mobilizing private-sector commitments to support healthy lifestyles while providing benefits to businesses.\textsuperscript{28}

**HEALTHY WEIGHT COMMITMENT FOUNDATION’S CALORIE REDUCTION EFFORTS** The Healthy Weight Commitment Foundation was formed in 2009 and consists of more than 300 US food manufacturers, food retailers, trade associations, and NGOs that support public-private partnerships in the marketplace, schools, and worksites to reverse US obesity rates.\textsuperscript{29} In 2010 sixteen Healthy Weight Commitment Foundation food and beverage manufacturers formed a partnership in which these companies voluntarily pledged to remove a total of 1.5 trillion calories from the US food supply by 2015.\textsuperscript{30} Partner diversity involving the companies, a private foundation, and an academic institution was achieved. In addition, a governance structure to evaluate the marketplace pledge was created through formal agreements that were established when the Robert Wood Johnson Foundation provided funding to academic researchers at the University of North Carolina at Chapel Hill to independently evaluate the Healthy Weight Commitment Foundation pledge.

Accountability expectations were met by the release of several independent evaluations. A baseline evaluation documented that the companies in the Healthy Weight Commitment Foundation accounted for about 25 percent of US calories consumed in 2007 and that the 1.5 trillion calories they pledged to eliminate would translate into about 14 calories per person per day.\textsuperscript{31}

In 2013 the Healthy Weight Commitment Foundation announced that it had exceeded its goal.\textsuperscript{32} The claim was confirmed by academic evaluators, who reported that the sixteen companies had sold about 6.4 trillion fewer calories in 2012 than in 2007. This translated into a reduction of about 100 calories per person per day from sales of products of companies in the foundation.\textsuperscript{33}

The foundation has maintained transparency by continuing to communicate its outputs and outcomes to the public and collaborating with other stakeholders to evaluate the impact of its commitments. Future work is needed to document the partnership process that led to the foundation’s results and to examine how the pledge translates into improved diet and health outcomes for children.

**NATIONAL SALT REDUCTION INITIATIVE’S EFFORTS TO REDUCE SODIUM** The National Salt Reduction Initiative, founded in 2008 and expanded nationwide in 2010, is a partnership coordinated by the New York City Department of Health and Mental Hygiene. The initiative’s goal is to encourage nationwide partnerships among thirty US food manufacturers, restaurants, and food retailers and city and state public health authorities to set voluntary sodium targets for sixty-two packaged food and twenty-five restaurant food categories by 2014.\textsuperscript{34} The initiative also encourages food industry sectors to publicly commit to these targets and to monitor progress.

Many food manufacturers have made their own pledges to reduce sodium independently from the initiative. A review of the initiative’s industry participants reveals only a few commitments made by major food companies (for example, the Campbell Soup Company, the H. J. Heinz Company, Kraft Foods, Mars Food US, and Unilever) and restaurants (such as Au Bon Pain, Starbucks, and Subway).\textsuperscript{35}

An evaluation of the initiative’s Packaged and Restaurant Food Databases is under way to analyze changes in sodium in the food supply from 2009 to 2014.\textsuperscript{36} Independent evaluations suggest that voluntary efforts to reduce sodium in US foods have been modest and inconsistent across industry sectors. Between 2005 and 2011 only a 3.5 percent reduction in sodium in 402 processed foods was observed, and there was a 2.6 percent increase in the sodium content of seventy-eight chain restaurant products.\textsuperscript{37}

The lack of a unified public-private partnership approach appears to have limited the broad-scale sodium reductions required to transform US food environments.\textsuperscript{38} Further evaluation by independent parties is needed to assess whether the National Salt Reduction Initiative has an adequate governance structure to hold participating companies accountable for their voluntary commitments and to mobilize sufficient resources to achieve results comparable to those of the Partnership for a Healthier America and Healthy Weight Commitment Foundation.

The US food industry’s efforts to reduce sodium are entirely voluntary, except for the regulation by the Food and Drug Administration (FDA) of the Nutrition Facts panel and salt-related health claims on food packages. In 2014 Mary Bassett, commissioner of the New York City Department of Health and Mental Hygiene, and thirty-one public health organizations requested that the FDA assume leadership of a national initiative to reduce sodium.\textsuperscript{39} That initiative would include food reformulation targets; an easily understood front-of-package labeling sys-
tem harmonized with the Nutrition Facts panel; and a public-education campaign to produce results similar to those of other countries, such as Argentina, Chile, South Africa, and the United Kingdom.

Bassett noted that the FDA had announced “its intention ‘to consider options to identify and implement sodium reduction targets’ in its 2012–2016 Strategic Plan.” However, the acting FDA commissioner has not yet articulated a strategy or timeframe for implementing voluntary guidelines for the industry.

**Walmart and HumanaVitality Partnership for Healthy Food Retail**

Walmart, “ranked first on the 2014 Fortune 500 list of the world’s largest companies by revenue,” announced in 2011 a healthy food campaign in the United States with commitments to reformulate the food retailer’s private-label brands through a 25 percent reduction in sodium and a 10 percent reduction in added sugars; develop a new front-of-package “Great for You” icon to help consumers identify healthy options; and, by undertaking these changes, influence its supply-chain business practices.

In 2012 Walmart announced a national partnership with HumanaVitality, a rewards program affiliated with the health insurer Humana, to enable the “more than 1 million Humana Vitality members who shop at Walmart” to “be eligible for a new program which offers a 5% savings on products that quality for Walmart’s Great for You icon, including fresh fruits, vegetables, and low-fat dairy” products. The 2014 Partnership for a Healthier America progress report provides details about the status of Walmart’s various self-reported public commitments.

It is unclear, however, whether a third party will evaluate the outputs and outcomes of Walmart’s healthy food retail commitments and the HumanaVitality partnership.

**Policy Recommendations**

Changing unhealthy food environments to reverse US obesity and diet-related chronic disease rates is an enormous undertaking. To combat these challenges, food and nutrition companies should take steps to align their core business practices with population health goals, pledge to support a level playing field for those attempting to make the food environment healthier, share proprietary data with independent evaluators, and invest in creating a consumer base for healthy food and beverage products.

The examples of the Partnership for a Healthier America and the Healthy Weight Commitment Foundation suggest that it is possible to transform unhealthy food environments when partnerships are carefully planned and executed, and when results are clearly communicated to the public. The National Salt Reduction Initiative and Walmart examples suggest the need for clearer communication with the public about governance structures, benchmarks, and accomplishments to improve perceived credibility for these partnerships.

Voluntary partnerships involving government, public-interest NGOs, and food and beverage industry stakeholders are promising but remain controversial because previous partnerships between public health organizations and either tobacco or alcohol businesses have undermined public health goals. Optimists believe that markets will drive voluntary industry actions to stimulate new product development and encourage healthy choices faster and more efficiently than government interventions would. For example, the Healthy Weight Commitment Foundation’s accomplishing its calorie reduction goal could inspire the US restaurant and food retail sectors to follow suit by making collective pledges to improve the nutrient profiles of their products.

A more negative perspective suggests that an overreliance on market-driven solutions may lead to corporate control of public health decisions. Skeptics believe that a voluntary approach allows businesses to set their own performance targets, which may conflict with empirical evidence of best nutrition policies, and to engage in political activities that offer businesses opportunities to lobby legislators in favor of policies that benefit corporate interests instead of the public.

Public trust in partnerships is also diminished when local, state, or national government officials partner with companies or trade associations that exclusively support education instead of action-oriented solutions or that emphasize physical activity interventions instead of maintaining a healthy diet. One public health expert suggests that the sixteen food and beverage companies involved in the 2010 Healthy Weight Commitment Foundation pledge knew about secular trends that projected declines in calorie sales when they pledged to reduce over 1.5 trillion calories from the food supply, and they used those trends as an opportunity for self-promotion.

Taking advantage of available opportunities and the framing of compelling evidence as strategic messages are ways to demonstrate to policy makers that special protections are needed for those Americans susceptible to contextual environmental cues that drive overeating of energy-dense products. Evaluations from other coun-
tries show the need to combine and evaluate the collective impact of government legislation, regulation of industry practices, national education campaigns, and government-established voluntary targets to accelerate the reformulation of processed food and beverage products and the expansion of healthy food retail initiatives.\textsuperscript{40,52}

**Conclusion**

Authoritative groups encourage stakeholders to use voluntary engagement strategies to translate evidence-informed health and nutrition recommendations into effective policies and actions and into innovative products and services. This article provides stakeholders with six guiding principles and a decision-making framework to ensure that current and future partnerships are both justifiable and well designed to combat obesity and diet-related chronic diseases. These partnerships can be evaluated based on their overall process, synergy, accountability, and effectiveness in achieving established goals. Our analysis of four real-world national partnerships emphasizes the importance of independent evaluations to help build credibility and public trust in voluntary engagement strategies to promote healthy food environments that will influence public health in both the near and the distant future.

The partnership decision-making framework discussed in this article was presented at the annual meeting of the American Society for Nutrition, Boston, Massachusetts, March 28–April 1. The article also evolved from a presentation at the Eighth Annual Healthy Eating Research Grantee Meeting in Durham, North Carolina, February 26–28, 2014. Healthy Eating Research is a national program supported by the Robert Wood Johnson Foundation. Vivica Kraak received an honorarium from the Healthy Eating Research program to give an oral presentation, from which this article evolved. Kraak also received funding from Health Canada to develop a framework to guide government decisions about public health and engagement by food and beverage industry stakeholders discussed in this article.

**NOTES**

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24 To access the Appendix, click on the Appendix link in the box to the right of the article online.


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Queries

1. The chief copy editor reorganized the lead paragraph. Starting with “One goal of” seemed a weak beginning. Notes 1 and 2 changed positions. Please approve the edited version or suggest modifications that keep the stronger statement first.

2. Paragraph beginning “Walmart,” we added a new Note 43 as the source for the sodium and sugar reduction and called out Note 44 as the source for the “Great for You” icon. Notes after the new Note 43 have been renumbered. Since the item in the new Note 43 is the Partnership for a Healthier America’s report on Walmart’s progress, do you want to call that out instead of Note 27 at the end of the next paragraph?

3. Acknowledgment, please verify that the information about the American Society for Nutrition meeting that we revised per http://experimentalbiology.org/PDFS/2015/2015-EB-Program-Web.aspx at the last stage is correct, or reword as needed.