Journal of Hunger & Environmental Nutrition, 4:225–240, 2009 Copyright © Taylor & Francis Group, LLC ISSN: 1932-0248 print/1932-0256 online DOI: 10.1080/19320240903321193





Aligning Food Systems Policies to Advance Public Health

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The involvement of public health professionals in food and agricultural policy provides tremendous opportunities for advancing the public's health. It is particularly challenging, however, for professionals to understand and consider the numerous policy drivers that impact the food system, which range from agricultural commodity policies to local food safety ordinances. Confronted with this complexity in the food system, policy advocates often focus on narrow objectives with disregard for the larger system. This commentary contends that, in order to be most effective, public health professionals need to consider the full range of interdependent policies that affect the system. Food policy councils have proven to be an effective tool, particularly at the local and state level, for developing comprehensive food systems policies that can improve public health.

KEYWORDS sustainable food systems, public health, policy drivers, food policy councils

INTRODUCTION

From the rates of chronic disease to the rise of foodborne illnesses in the US population, the increasing public health and societal costs of diet-related

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health issues are well documented. A growing coalition of public health professionals is advocating for food and agriculture policies that promote public health as a means to address these issues. Solving these diet-related concerns goes beyond the individual responsibility of eaters and requires policy-makers to consider the numerous drivers that impact all sectors of the food system, in terms of the health benefits of the food produced as well as other public health issues such as exposure to toxics and the degradation of natural resources. For policies to effectively improve food systems and thus public health, a holistic approach to food production, land use, agricultural development, livestock management, food distribution and retail, and food assistance is required.

The complexity of the food system creates challenges for identifying and incorporating health-supporting policy opportunities. Additionally, due to the breadth of policies that may impact health, there is the possibility of one policy negating another policy's effectiveness. For example, the benefits of local community incentives for more fruits and vegetables in convenience stores could be overwhelmed by federal policies that create a favorable business environment for the production of highly processed foods.

This article provides a brief analysis of opportunities to align food system policies that advance public health. Table 1 provides examples of policy opportunities that have been identified. Two generalizations of problem arenas can be made from this analysis:

- 1. Public health practitioners need to understand food systems. Many food system policies that are detrimental to healthy eating are currently outside of the practice and policy understanding of most public health professionals. To change these policies, public health practitioners need to develop an understanding of a diversity of issues such as agricultural commodity policies within the US Dept of Agriculture (USDA), the lack of enforcement of anti-trust legislation in the US Dept of Justice, and budgetary constraints facing school districts that have contributed to the reduction or elimination of kitchens in school cafeterias.
- 2. The public's health should be a key driver for food systems policies. Of the myriad of policies that impact food systems, very few have an explicit objective of improving the public's health. Often these programs and policies were created decades ago, before policy-makers had an understanding of the connection of food system policy to the public's health. For example, the mission of the National School Lunch Program is to feed hungry children rather than provide the most high-quality and nutritious food for children's development.

To segment food policies as solely pertaining to agriculture or food or conservation or economic development is ineffective; they all have an

Food sector	Federal	State	Local
Production Farming Gardening Aquaculture Wild foods	Authorize and appropriate agricultural legislation that provides incentives to increase production of foods that promote health (eg, fruits, vegetables, whole grains). Place a moratorium on livestock producers preventing the regular use of subtherapeutic antibiotics and synthetic growth hormones in healthy animals. Implement rules that require the foods served to children through USDA programs are produced without the use of antibiotics, synthetic hormones, pesticides, or chemical fertilizers. Remove distortions in agricultural markets by maintaining fair commodity prices. Prohibit the production of genetically engineered crops for pharmaceutical purposes in open fields. Enact food procurement policies that require a minimum of 10% of foods used in USDA food programs are from local producers.	Implement economic development plans that include fruit and vegetable production (specialty crops). Enforce land use policies that halt the excessive encroachment of urban development on agricultural land. Establish procurement priorities for local food in state-funded programs and institutions. Require gardening and food preparation programs integrated into school curriculum. Provide tax incentives for roof gardens (in urban areas).Partner with tribal governments to establish productive lands that support native food systems.	Establish city ordinances that allow residents to keep chickens, ducks, rabbits, and beehives. Enforce land use protections for urban agriculture, community gardens, and farmers markets. Create topical plan for community gardens and urban agriculture. Pass a resolution recognizing the importance of local healthy, and sustainably produced foods. Make available compost and water to community gardens.Provide allowances for organizations to lease nondevelopable city-owned property for community gardens. Use chemical-free pest management and lawn care for city- and county- owned property.Provide business development

TABLE 1 Examples of Food System Policies That Advance Public Health

(Continued)

assistance for smallscale and women and minorityowned farms. Establish edible landscaping on city and county-owned

property.

Food sector	Federal	State	Local
Transformation Processing Packaging Labeling Marketing	Expand labeling laws to include foods that contain genetically engineered ingredients. Prohibit the marketing of foods of low nutritional value to children. Prohibit misleading health claims in advertising and on food package labels. Require franchise and fast food restaurants to provide nutritional information on menu items.	Offer tax incentives for small to mid-sized industries that process, store, and distribute perishable foods grown in the state. Provide safe working conditions in processing facilities.	Implement standards and secondary labels/logos for foods produced within a specific geographic region. Establish community kitchens and mobile processing units.
Distribution Transportation Wholesaling Warehousing	Mandate that for every dollar spent by food industries on marketing foods of low-nutritional value, 25 cent must go towards a national nutrition campaign. Leverage USDA grant programs to build local foods infrastructure. Establish procurement policies that give priority to locally produced foods in federal food programs.	Establish cooperative transportation and warehousing opportunities for local producers. Offer tax incentives for regional transportation, warehousing, and wholesaling of locally produced foods.	Ease permitting, regulatory, and other taxes for food business incubation. Develop zoning requirements that create transit routes (sidewalks, pedestrian malls, bicycle paths) from all neighborhoods to grocery stores and food assistance providers.
Access Retail Food safety Food and nutrition security	Develop coordinated food safety regulations.Appropriate funds to fully support WIC and Senior Farmers' Market Nutrition Programs in all states.	Establish zoning restrictions limiting fast food outlets within a specified distance of schools and youth-centered facilities. Incorporate food access strategies into emergency preparedness plans to build local reserves and assure maintaining food supplies in times of crisis.	Ease licensing requirements for new farm stands.Expand access to feeding programs (breakfast, lunch, after school, summer) to all children and youth throughout the year.

 TABLE 1 (Continued)

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ConsumptionFood and nutritionEstablish minimum programs (SNAP, SLP, produced food that preservingEstablish minimum preserve native/ethni food cultures.City produced food their food form education and priority versus costEase electronic benefits transfer (EBT) transfer (EBT) transfer (EBT) transfer (EBT) and WIC FSNP participants.Establish minimum preserves. protected food their food from education and sciences.mobile fruit and vegetable vendors. Establish fast food- free zones in and hospitals.Restrict the number of requirements for farmers electronic benefits transfer (EBT) and WIC FSNP participants.Establish can dexpand elucation and sciences.Preserve native/ethni food cultures.City resolutions require electronic benefits transfer (EBT) transfer (EBT)Expand farm to school efforts through Child may affect health.)Establish and expand sciences.Restrict the number o restaurants in newly established food enterprise zones.Expand farm to school efforts through Child may affect health.)Establish food enterprise zones ethick and transfer of that attract food tratilers selling healthy foods and the number of retailers selling healthy foods and the ide of closing	Food sector	Federal	State	Local
	Consumption Purchasing Preparing Preserving	Food and nutrition programs (SNAP, SLP, WIC) provide food that meet current US dietary guidelines. Local and sustainably produced foods are priority versus costEase requirements for farmers markets to utilize electronic benefits transfer (EBT) technology for SNAP and WIC FSNP participants. Expand farm to school efforts through Child Nutrition Act. (US dietary guidelines that go beyond nutrients and include production and processing methods that	Establish minimum percentage of locally produced food purchased by public entities. Establish and expand education and training programs for culinary arts and	Establish a city ordinance allowing mobile fruit and vegetable vendors in low-income neighborhoods. Establish fast food- free zones in and near schools and hospitals. Preserve native/ethnic food cultures.City resolutions require city agencies to buy a minimum percentagae of their food from local farmers. Restrict the number of fast food restaurants in newly established food enterprise zones. Establish food enterprise zones that attract food retailers to underserved areas through zoning and tax incentives. Zoning regulations offer another policy option to increase the number of retailers selling healthy foods and stem the tide of closing supermarkets. Tax abatement for retail outlets that sell healthy food/ eliminate tax subsidies for fast food restaurants.

TABLE 1 (Continued)

(Continued)

Food sector	Federal	State	Local
			Limit the soft drink and snack industryies' access to schools and other institutions. Provide incentives for community kitchens that can be used by schools and other institutions to preserve locally produced food. Develop provisions to expand access on public land for community gardeners. Offer food preparation courses as part of city parks and recreation activities.
Resource & waste management Disposal Recycling	Offer tax credits for food production, processing, transportation, and retail entities who use alternative energy. Establish standards for food industry water use/ water recycling.	Offer tax incentives for using food waste for biofuel production. Develop an award program recognizing communities that reduce food waste in landfills.	Implement a community composting initiative that provides composting bins to residents and businesses to collect food scraps that are provided to area farms.

TABLE 1 (Continued)

impact on the operation of food systems and a subsequent impact on public health. Addressing health-promoting policies with a systems-based analysis is critical for effectively improving the public's health.

BACKGROUND

The state of public health in the United States is heavily influenced by food and agriculture policy at the federal, state, and local levels. Federal agriculture policies authorize the allocation of billions of dollars for agricultural food production. This includes programs such as research, payments to farmers, and conservation incentives to offset the environmental impacts of agricultural production practices. Federal food assistance policies allocate billions of dollars to support programs including the Supplemental Nutrition Assistance Program (SNAP); the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); and the School Food programs, specifically Breakfast, Lunch, and Fruit and Vegetable Snack Program through the Child Nutrition Act.

Despite this significant level of government investment in agriculture, food assistance, and health care, the track record for achieving a healthy and well-nourished population is mixed. A disconnect exists between federal policies and the research that proves which foods promote health. This disconnect influences government costs, most notably the billions of dollars in federal Medicaid and state Medicare outlays, food assistance programs, and the private dollars spent on treating diet-related diseases such as obesity, diabetes, and cancer, as well as the production of processed foods that do not effectively support health.

As Michael Hamm indicates in his article,¹ the food system presents a "wicked problem," where the complex interdependencies between socioeconomic and policy forces create a thicket of poorly understood drivers and unclear policy options for advancing public health. Faced with these food system complexities, most food and agriculture issues are discussed in silos and without adequate consideration for the ancillary impacts on other food system issues or the public's health. The resulting political reality is that it is easier to create a USDA program to support nutrition education in some low-income schools than to ensure that all public schoolchildren have adequate access to healthy school food environments, including comprehensive programs in nutrition and culinary education, school gardens, farmto-school connections, and health-promoting school food.

Yet, despite this wicked problem and the fact that these policy interactions are not likely to be fully understood, communities across the country are demonstrating that effective actions can be taken to advance public health, even when these policies do not have an explicit public health focus. The dramatic growth in farmers markets, for example, can improve access to healthy foods, even though most proponents of these markets focus on the community-building and economic benefits rather than the public health benefits.

Another example is the expansion of urban agriculture and the rapidly increasing number of home, community, and school garden efforts throughout the country.² With a greater demand for home-grown foods, the gardening industry is benefiting and neighbors are educating one another about the benefits of growing, preparing, and preserving healthy foods. Local governments are responding by evaluating their zoning and land use policies to help ease any existing restrictions to grow and sell food from urban gardens and farms. Individuals and groups are sharing information to learn and relearn how to prepare foods at home and to take time to share meals. Effectively addressing the public's health requires a comprehensive policy perspective of food systems from production through waste management. Simply quantifying the calories and nutrients needed for each person to maintain health is inadequate. This commentary identifies potential federal, state, and local policies that can support a food system that advances public health. The components of two notable pieces of food system-related federal legislation are briefly discussed—the Food, Conservation and Energy Act (better known as the Farm Bill) and Child Nutrition and WIC Reauthorization. Examples of policies from these bills that conflict with healthy food systems are identified, and alternatives are proposed. Because federal policies are a one-size-fits-all approach to addressing the food system across the United States, examples of state and local policies are included to illustrate how communities are identifying assets and gaps and using that information to make improvements in their food system.

THE SHIFTING HISTORICAL EMPHASIS OF FOOD AND AGRICULTURE POLICY

The current disconnect between food policy and public health is not unexpected given that nutrition and health have never been the primary factors used to define food and agriculture policy. Since modern agricultural policy was first developed in the 1930s, most policy development has focused on maintaining a prosperous economic climate for farmers and the agricultural industry, maintaining an adequate supply of food for all Americans, and maintaining the soil and water resources for agricultural production. The consideration of broad environmental goals did not occur until the Conservation Title was added to the 1985 Farm Bill.

Agricultural challenges such as fluctuation in weather and pests, the low elasticity in people's consumption patterns, and a farmer's limited ability to manage production after spring planting were addressed in the 1933 Agricultural Adjustment Act (AAA). Recognized as the first farm bill, AAA authorized the agriculture secretary to use grain reserves and land set aside programs to maintain acceptable commodity prices for farmers. These programs cost taxpayers very little, and rather than paying farmers for raising certain commodities, these programs managed market supplies of durable, storable commodities such as corn, wheat, cotton, and rice.

The commodity policies in the 2008 Farm Bill bear little resemblance to those enacted in the 1930s. Over the past 50 years, the supply management programs have slowly evolved into subsidy programs, so rather than maintain a certain commodity price level, most agricultural commodity prices are allowed to drop as low as the market allows, and farmers receive government payments to improve their income. This shift in policy has had a tremendous impact on the procurement decisions of the food industry. A well-known shift was the soft drink industry's complete conversion of sweeteners in the early 1980s from cane sugar to high-fructose corn syrup (HFCS). Low-priced corn resulted in the rapid growth in HFCS consumption and a significant increase in per capita sweetener consumption in the United States.³

In addition to agriculture policy, federal food assistance programs have historically focused on assuring an adequate quantity of food. The National School Lunch Act of 1946 was signed by President Truman "as a measure of national security, to safeguard the health and well being of the Nation's children."⁴ (p. 71) Although nutrition was considered in the original School Lunch Act, it was primarily focused on ensuring adequate calories for children to grow, not the quality of the food provided. The Food Stamp Program, which became permanent in 1964, focused on assisting low-income house-holds with adequate and nutritious diets, but the nutritional benefits of the program are not clear.⁵ The Special Supplemental Food Program for Women, Infants, and Children was created in 1972 amidst a concern that low-income children and pregnant women often had inadequate access to food. All of these programs appear to have been developed with the assumption that if consumers were provided with an adequate supply of food and calories, good nutrition would naturally result.

Another important aspect of the food system that impacts health is food safety and inspections, which are split between USDA, the Food and Drug Administration, and many other agencies, with state and local agencies also having an influence on food accessibility and food safety. Rarely is this array of policy drivers considered with an appropriate systems-based perspective that includes consideration for the technological innovations in the food industry and other socioeconomic changes.

Finally, an important lesson regarding food and agriculture policy and public health is that policies can have significant impacts years after they have been reversed. The food industry has enormous investments in the production, storage, transportation, and processing of a few commodities such as corn, much of which ends up as highly processed food products. If future policies remove subsidies and other incentives for the production and use of corn as a way to improve public health, it may take years before the percentage of corn in the US food system is reduced.⁶ Similarly, several policies have contributed to the loss of kitchens in school cafeterias. The loss of food preparation infrastructure will limit the ability of schools to take advantage of opportunities to improve the quality of school food, including the emerging interest in serving fresh produce, scratch cooking, and buying food directly from farmers.

POLICIES CONFLICTING WITH PUBLIC HEALTH GOALS

Documenting the relationship between specific policies and public health outcomes is particularly challenging because numerous variables can hide or amplify causal relationships. The following are examples of trends in the food system resulting in adverse public health consequences and the policies that are likely contributing to these trends.

Increased Availability and Consumption of Fats and Sugars

Though US consumers have benefited from a steady decline in the overall cost of food as a percentage of income, a likely adverse impact has been the changes in relative costs of various food items. Specifically, the per calorie cost of fresh fruits and vegetables has become considerably higher than the per calorie cost of many highly processed foods. This price differential is likely one of the reasons that of the 300 additional calories per day that Americans ingested from 1985 to 2000, 24% were added fats and 23% were added sugars.⁷ Many of these extra calories were processed from two crops, corn and soybeans, as demonstrated by the tremendous growth in high fructose corn syrup consumption from 1975 to 2000³ and a similar trajectory in soybean oil consumption.⁸

The shift in agricultural policy from commodity price support policies, which moderated price fluctuations, to the use of subsidies to support commodity production has likely been a factor in this unhealthy trend. In recent decades, market prices for corn, soybeans, and wheat have frequently fallen below the farmer's cost to produce those commodities, which could not happen under previous policies. These artificially low prices created an incentive for the food industry to use more of these commodities than they would under more functional markets.

Increased Availability and Consumption of Less Healthy Meat and Poultry

Americans consume slightly more meat than the USDA daily recommendations,⁹ but perhaps more important is the dramatic change in recent decades of how this meat is produced. Despite the fact that pasture-raised, grass-fed meat, dairy, and eggs have been shown to contain more healthpromoting nutrients such as omega-3 fatty acids and cancer-fighting conjugated linoleic acid, animals fed grain-based diets in confinement facilities continue to dominate the livestock industry. Grain-fed animals produce food products that are higher in saturated fat and cholesterol and lower in beneficial fatty acids.¹⁰ Antibiotics and synthetic growth hormones are also commonly used in the industrial production of livestock. These livestock production practices further compound public health risks including a dangerous increase of antibiotic-resistant bacteria and ecological concerns such as air pollution and water and soil contamination in surrounding communities. Distortions in the commodity markets have contributed to this growth of the industrial livestock model. Between 1997 and 2005, the broiler chicken industry was estimated to save a total of \$11.25 billion by purchasing feed at prices an average of 21% below the cost of production. The hog industry was estimated to save \$8.5 billion (T.A. Wise and E. Starmer, private communication, February 26, 2007). The low-cost feed creates an incentive for the food industry to provide more grain-fed meat and poultry than a functional market would bear while at the same time creating a disincentive for healthier grass-fed livestock.

Insufficient Access and Consumption of Fruits and Vegetables

The benefits of eating minimally processed foods such as fresh fruits and vegetables are well documented. Yet, despite the widespread advocacy for produce consumption, studies find that US children and adults consumed inadequate fruits and vegetables.¹¹ The current US dietary guidelines recommend 9 servings of fruits and vegetables per day. Based on these guidelines, only about half of the volume of recommended fruit and about one third of the recommended vegetables are produced in the United States today.¹² This inadequate domestic production of fruits and vegetables results in a greater reliance on imports, less access, and more costly fresh produce. USDA recently documented the extent and characteristics of "food deserts" in the United States.¹³

Insufficient Access to Whole, Minimally Processed Foods

Whereas past generations relied heavily on the local production of produce and grains, most are now grown in a few regions of the country or even other parts of the world. Numerous policies, from the recommendation of USDA officials in the 1970s for farmers to "get big or get out" to the structure of commodity programs to the development of Interstate Highway System, have contributed to this consolidation of the food supply.

These adverse health effects are a consequence of a number of shifts in production practices, including the following:

- Seed and cultivar selection. The varieties that appear on a supermarket shelf tend to have been selected for lower cost of production, ease of travel, longer shelf life, and conformity of appearance. Many studies have found, however, a large variability in nutrients, such as vitamins and phytonutrients, within different cultivars of the same fruit or vegetable.¹⁴ For example, cultivars that are selected for utilizing fertilizer for rapid growth have lower phytochemicals and micronutrients concentrations.
- Growing practices. Though the yield benefits of chemical fertilizers are well established, a quarter-century's worth of science increasingly shows

synthetic fertilizers to be detrimental to nutrient concentrations. A 2004 study of 13 nutrients in 43 garden crops, grown between 1950 and 1999, identified a statistically reliable decline in 6 nutrients.¹⁵

• Harvest and postharvest handling. Many fruits and vegetables grown for fresh consumption are harvested when mature but still unripe. This facilitates postharvest washing, grading, packaging, and transportation. This unripened fruit damages less easily and is less likely to spoil. But it also has lower levels of vitamins and phytonutrients, because the reduced exposure to sunlight thwarts the production of these important nutrients.¹⁶

Transportation and storage. Many nutrients, most prominently vitamin C, found in ripe produce start to break down immediately after harvest.¹⁷ Fresh produce on average travels 1500 miles from its growing site to the consumer's plate.¹⁸ Consequently, long transportation times and shelf life reduce nutrient content, with substantial variability due to conditions like temperature and humidity.

Local, state, and federal tax and zoning policies can also impact access to wholesome, minimally processed foods. At the local level, property taxes and zoning ordinances often have the effect of separating residential neighborhoods from food production. At the federal level, income taxes and the preferential treatment of capital gains taxes creates an incentive for greater technological investments and less farm labor, which creates a bias toward larger, specialized commodity farms at the expense of smaller, labor-intensive direct marketing farms. Similar biases have occurred at the retail level, where tools such as tax incremental financing often support the development of large retail developments that include fast food restaurants and other highly processed foods.

Adverse Health Impacts From Food Safety Policy

Food safety concerns have played a prominent role in changing how food is consumed. From local ordinances to state and federal policies, safety concerns are often addressed with prescriptive provisions rather than measurements of specific health standards. In many cities, for example, only ice cream, candies, and other highly processed foods can be sold from a vehicle, and only prepared foods such as hotdogs can be sold from a food cart. Though reducing the risk of pathogens on fruits and vegetables is important, these ordinances have also unintentionally limited access to healthier food options.

Developing Policies That Advance Public Health

One of the challenges that results from adopting a more comprehensive perspective of public health policy and the food system is that the potential points of policy involvement are vast, the efficacy of different actions is unknown, and the realities of the political process need to be considered. The particular policies that public health advocates champion may vary from community to community based on particular public health concerns, the state of the region's food system, and the available political opportunities. To use an analogy, there are many pieces missing in the food system/ public health puzzle, which means that many different-shaped pieces could help complete the puzzle.

Table 1 provides a noncomprehensive array of policy opportunities that should be considered by public health advocates. The wide range of potential initiatives demonstrates that public health advocacy has considerably more opportunities for success when partnerships are developed with professionals that have complementary areas of expertise, such as agriculture, transportation, and land use policy. The table also demonstrates that progress toward public health objectives can be achieved by reforming policies that have little explicit connection to public health. The lack of an obvious connection to public health also reveals an opportunity to make these relationships more explicit and mandate a public health assessment of various food system policies, similar to the required environmental impact assessments for some changes in land use.

A key step to aligning food systems policies is to have food system leaders and policy makers at the local, state, and federal levels identify and agree upon guiding principles as the basis of a comprehensive framework for advancing food systems that support health. For example, the characteristics of a food system that advances public health should (a) fulfill the food and nutrition needs of all eaters; (b) conserve and renew natural resources; (c) advance social justice and animal welfare; and (e) build community wealth.¹⁹

At the federal level, a challenge has been the traditional division between agricultural policy and food and nutrition policy. Considering all of these policies as food systems policies, and that diversified cropping systems are an integral part of a diverse, healthy diet, is crucial for a healthpromoting food system. For example, expanding incentives for specialty crops (eg, fruits, vegetables, and nuts) for US markets—and reducing the incentives for commodity crop production—would close the gap between the recommendations of the Dietary Guidelines for Americans and the number of servings of foods grown in the United States.¹¹

Perhaps the most effective method for initiating comprehensive food system policy enhancements with a focus on improving health is developing food policy councils. These councils, which often have a geographic focus of a city, county, or multi-county region, can be established via legislation, an executive order, resolution or proclamation, or by action of nongovernmental organizations. Common roles of food policy councils are to examine the existing food system and the correlation to public health indicators; determine assets, gaps, and inconsistencies; and identify policies or programs to advance public health and local food economies while building the stability and resiliency of the food landscape. A government that does not have a comprehensive assessment of food system policies is unlikely to have an effective method of addressing health policy, energy policy, economic development policy, environment policy, transportation policy, or anti-poverty policy.²⁰ Food policy councils can provide the breadth and synergy to address dynamic and complex issues.

Food policy councils face viability and endurance challenges—specifically, funding, staffing, and government support. Food policy councils struggle with closing the gap among stakeholders and policy-makers who may or may not grasp the construct of food systems and how policy shapes the food system. However, the conversations and networking among diverse councils afford a productive and creative venue to advance policies, particularly at the local and state levels.

CONCLUSION

It is human nature to reduce a problem to solvable parts. That works well when fixing a car, but it is not appropriate when grappling with the complex, interdependent aspects of food systems and public health. Over the past few decades, policy-makers have developed numerous programs and initiatives at the local, state, and federal levels to address certain health outcomes in food systems. Though many of these have certainly provided benefits, it is difficult to imagine that these fragmented efforts will ever get the public's health substantially beyond the current focus on treatment of disease to that of prevention. The momentum of the industrial food system model is too strong to be effectively altered by incremental policies.

Food systems policies need to be considered broadly and include diverse sectors such as transportation, energy, taxes, commodity agriculture, and institutional procurement in addition to public health. Policy-makers cannot be expected to develop effective, comprehensive policies that consider public health without leadership from public health professionals and advocates. This will require public health professionals to create unlikely alliances and get involved in policy development outside of their normal expertise. The development of food policy councils, and the leadership from public health professionals on these councils, is an excellent first step toward these comprehensive food systems policies and an opportunity for health professionals and advocates to get involved.

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