



Research and Action Priorities for Linking Public Health, Food Systems, and Sustainable Agriculture: Recommendations from the Airlie Conference

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One hundred leading researchers, practitioners, and advocates in public health, health care, nutrition, obesity, economics, sustainable agriculture, and food systems met at the Airlie Conference Center in April 2009 to discuss creating linkages among food systems, public health, and sustainable agriculture in order to achieve healthier diets, healthier communities, and a healthier planet. Participants convened in small groups to explore and discuss research that is needed to create a health-based and sustainable food system. The discussion and key recommendations from the small breakout sessions are presented

KEYWORDS food systems, public health, obesity, sustainable agriculture, research recommendations

BACKGROUND

One hundred leading researchers, practitioners, and advocates in public health, health care, nutrition, obesity, economics, sustainable agriculture, and food systems met at the Airlie Conference Center in Warrenton, Virginia, on April 1–3, 2009, to discuss research and policy opportunities linking food systems, public health, and sustainable agriculture with the aim

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of achieving healthier diets, healthier communities, and a healthier planet. During the first day of the conference, presentations and discussions focused on improving the food system along the food supply chain from different perspectives: public health, sustainable agriculture, health care, food industry, and community food systems. The afternoon session examined the concept of Good Food (developed by the W.K. Kellogg Foundation). A description can be found at <http://www.wkkf.org/default.aspx?tabid=75&CID=19&NID=61&LanguageID=0> (accessed September 18, 2009)—food that is (1) healthy (promotes health and prevents disease); (2) fair (no one along the production line is exploited for its creation); (3) affordable (people of all socioeconomic backgrounds are able to purchase and have access to healthy foods); and (4) green (produced in a manner that is environmentally sustainable)—and how a systems-based approach could be used to improve the food system. On the morning of the second day of the conference, participants convened in small groups to explore and discuss needed research in this arena.

SMALL GROUP PROCESS

The breakout session topics were organized around the concept of good food and there was a small group each for healthy, fair, affordable, and green. In addition, there were 2 other breakout sessions, one on health care and the other on mobilizing change. Each small group had approximately 12 to 15 participants and had the following group charge:

1. What is the sufficiency of the current knowledge base as grounds for policy change—what do we know now? Is this research being applied?
2. What are the policy-relevant research questions we need answered within the next 3 to 5 years in order to develop healthier food environments?

After defining research questions, each group was asked to consider each question relative to research feasibility (high, low) and potential policy impact (high, low). Groups then used this method to prioritize items (e.g., high research feasibility, high policy impact). The small groups on mobilizing change and health care expressed the belief that there is enough compelling evidence to serve as sufficient grounds for policy change now. These 2 groups therefore focused on action items rather than on research questions. The ideas presented below are not consensus based but rather reflect the initial exploration of potential policy-relevant research and action priorities for linking food systems and sustainable agriculture with public health goals.

SMALL GROUP DISCUSSION AND RECOMMENDATIONS

Healthy

Context: What would it take for us to produce, process, and distribute a healthy diet for all Americans that blends local, national, and global food supplies into a locally integrated food system? How could this impact health disparities across the country? What types of researchers need to be at the table? How do they need to interact with communities to ensure research utility?

DISCUSSION

- The definition of *healthy* as applied to the food system can have different meanings for different constituencies (general public, cultural groups).
- We need to more effectively communicate the knowledge we currently have and make our case concretely; we can move forward now with what we know.
- Convenience food and nutrition need not be mutually exclusive.
- There has been some success in engaging the food industry and more needs to be done.
- There are a number of relevant global examples. We can learn from and apply lessons learned from other countries (e.g., Finland and Denmark).

RESEARCH NEEDS

- Define what we mean by *healthy food* and a *healthy food system*. Develop nutrition standards and criteria for healthy foods (high research feasibility and policy impact).
- Translate best practices in terms of antibiotics usage in agriculture from Europe—don't reinvent the wheel (high research feasibility and policy impact).
- Examine the multiple factors that influence food consumption (high research feasibility and policy impact).
- Quantify the co-benefits of food systems change in terms of health, environment, and economics (high research feasibility and policy impact).
- Document and model possible global food system future scenarios, highlighting food/health/environment linkages (low research feasibility).
- Document socioeconomic benefits to marketing systems (low policy impact).

Fair

Context: What do we know about cost and infrastructure issues in production, processing, and distribution that impact a living wage across the food

system? How different would our food and health systems look if there were a living wage across the industries? What public and private policy changes might be needed? What types of researchers need to be at the table? How do they need to interact with communities to ensure research utility? What are the legal possibilities right now and what might be done?

DISCUSSION

Parsing out the presumed components of a fair food system helps to develop indicators and priorities:

- Access—access to healthy food and markets; ability to produce and sell; access to benefits, land, training, and knowledge.
- Participation in decision making—inclusion of excluded groups.
- Acceptable—culturally appropriate food, provisioning responsive to community, community empowered to ask for what is needed.
- Legal access—enforcement of existing law; access to recourse; access to housing; immigration law and pathways to citizenship; conditions of production.
- Fair to the ecosystem; that is, natural capital is protected for future generations—biodiversity, soil and water quality/quantity, ecosystem services.

RESEARCH NEEDS

- Additional studies on the costs of a healthy diet. Consider also where different marketing strategies are appropriate—how to make routine sources of food healthier (high research feasibility/high policy impact).
- Explore indicators of fairness and contrasting definitions/dimensions of fairness (high research feasibility/high policy impact).
- Conduct a metastudy of pathways to empowerment in food systems; how to build social will to implement the right to food; and connections between social will and political will (high research feasibility/medium policy impact).
- Consider incentives and disincentives for equity in the value chain (ie, power asymmetries, mandatory arbitration for labor disputes, and contract growers; high research feasibility/medium policy impact).
- Examine reintroduction of traditional foods and health and cultural benefits (immigrant populations and Native Americans); process of assimilation and acceptability of different foods to assimilating groups; connections between resilience and self-provisioning (high research feasibility/low policy impact).
- Evaluate success of farm worker campaigns in implementing human rights; opportunities to increase enforcement of labor laws and consequences of defunding enforcement; opportunities for increasing protection of farm workers (high research feasibility/low policy impact).

Affordable

Context: What would it take to allow access for everyone to have a healthy diet that is as local as feasible? What do we know about potential ways to change pricing (e.g., taxes on inputs or finished products)? What public and private policy changes might be needed? What types of researchers need to be at the table? How do they need to interact with communities to ensure research utility?

DISCUSSION

- Healthy food must be available and affordable, but we must also look at limiting less healthy food.
- Local context for affordability is critical.
- Strategies should be balanced with efforts specifically aimed at removing barriers that create and/or perpetuate disparities.
- How do we reconcile the market distortions in our current system (eg, the system's failure to have the use of antibiotics or water reflect their true societal costs and value)?

RESEARCH NEEDS (ALL HIGH RESEARCH FEASIBILITY AND POLICY IMPACT)

- Examine ways to leverage existing federal programs; for example, WIC, SNAP (food stamps), as well as policies and programs to support rural systems. Which of these programs could be the most effective vehicles to build and support a healthy food system?
- Examine where people get their food. What supports and infrastructure are in place, what adjustments are needed?
- Examine why unhealthy foods are less expensive than healthy foods and strategies to reverse this.
- Explore broader market influences that need to be regulated. Consider contracts between wholesalers and retailers, decisions made about what is stocked and how it is positioned and promoted (marketing, shelf space and prominence). Also consider educational/marketing opportunities in the food circulars that go to millions of people.
- Assess comparative effects and relative merits of multiple business models. Discussed the small store but also co-ops, CSAs, farmers' markets.
- Assess how agriculture policies, especially programs of direct payments to producers of commodity crops, distort market prices, making highly processed, high-calorie convenience foods and beverages more accessible and affordable in terms of retail prices than fruits and vegetables.

ALSO CONSIDER PRODUCTION ISSUES:

- What can be done in terms of organizing small and medium farmers to form co-ops, as well as market and distribute their foods more effectively?
- What are the successes and failures of farmer alliances?
- What are the barriers to entry to get young people who are interested in growing healthier foods sustainably, to take up the farming profession?

Green

Context: Can we develop a food system to feed 8 billion people that is sustainable? How do we balance production across local-national-global settings? What public and private policy changes might be needed? What do we know about climate change and our food system? What types of researchers need to be at the table to answer these questions? How do they need to interact with communities to ensure research utility?

DISCUSSION

- We need to reexamine our dominant food system paradigm, which is highly industrial and resource intensive. What are our core beliefs about the US food system? We need marketing and conceptual research to come up with a different set of core beliefs.
- Strategies for a sustainable/green food system include research (including community-based participatory research); education/outreach (from professional organizations to students to food citizens); community-based strategies, business strategies and best practices; policies to incentivize sustainable practices.
- Need better dialogue between public health, food safety, and social justice sectors.
- “Sustainable agriculture” holds a vision that ties in the multiple possible co-benefits we have discussed, in terms of climate change, low-income communities, public health, animal welfare, and clean air, water, and soil.

RESEARCH NEEDS (ALL HIGH RESEARCH FEASIBILITY AND POLICY IMPACT)

- Create better data systems to track what is going on in the natural world.
- Need better full life cycle analyses of what is going on in the food system in terms of examining externalities. What are the comprehensive external costs to the public’s health of the current agricultural system, including environmental degradation, climate change, toxic exposures, and the ability for us to produce food in the future?

- What are the full cost and benefits to society of agriculture done in an alternative way, incorporating all knowledge of alternative systems for their public health, societal, and individual costs and benefits?

Health Care

Context: Where are the near-term opportunities to change the food environment and food system within health care, where the mission already is about health? What do we know about the impact of such changes on the health of patients, visitors, staff, and surrounding communities? What models are there for health care institutions and/or staff acting as agents of food system change for the broader community? Do the former have a mission-based obligation to advocate for food systems that are healthy and more sustainable? If so, where might advocacy efforts be focused to greatest effect in terms of improving population health?

DISCUSSION

- The health care community has been largely absent from the debate; given the huge impact of food systems on health care, we need to do better.
- What opportunities for common action can help bring a collective voice from health care?
- Revisit the long history of community health centers' connection to farmers (can hospitals be community drop points for CSAs, farmers' markets?)

ACTIONS

- Develop a consensus statement that identifies the connection between food and health, undersigned by various groups and players.
- Create vehicles to join, inform, influence (e.g., Child Nutrition Reauthorization Act, prevention as part of health care reform).
- Explore reciprocal education opportunities that connect farmers and health community; make the link.
- Develop a module around healthy food systems to help pediatricians and doctors engage elected officials at the local level, as we have for childhood obesity.
- Track position statements from AMA and other organizations to identify opportunities to speak with a collective voice.
- Extend the Healthy Food Pledge (<http://www.HealthyFoodinHealthcare.org>) to other places.
- Hold a national quality forum, setting national standards around a strategy for a healthy population.

- Connect hospital and local school procurement efforts; complementary purchasing efforts with local farmers.
- Take a collective position on medical antibiotics—proposed federal legislation (the Preservation of Antibiotics for Medical Treatment Act or PAMTA).
- Determine how health plans can ensure that farmers have health coverage, allow them to stay on the land.
- Encourage intervention with pharmacies; people see pharmacies as health care providers yet their aisles are flanked with unhealthy food.

Mobilizing Change

Context: Though evidence is important and still accumulating, we need to act and move forward to create better food systems to reduce obesity and improve the health of the population, the environment, and the planet. How can we change the social, economic, and political conditions to create healthier food systems? How can we effectively mobilize and organize for change?

DISCUSSION

- A critical mass of evidence supports a compelling case for moving forward on healthier food systems now (envisioned as both top down and bottom up).
- Win-wins. If you address food as a key part of human health and well-being, you solve not just childhood obesity but hunger too. Focus on the theme of common good.
- How can we capture the public's passion for the issue and mobilize them into a (coherent) social voice for change?
- It is important to move toward something versus reclaiming the past.
- We need to better understand the linkages of people at all levels to create a common language and ideas.

ACTIONS

- Create a coalition of groups that care about food and food-related issues; capture a powerful voice.
- Create a summit of key spokespeople among these groups, to sit at the table and develop trust.
- Discuss whether an organization would spring up or assemble as a resource bank, convening group, etc.
- Provide policy-makers with analyses as to the opportunities and barriers for action.

CONCLUSIONS

Challenges to our society in terms of food, agriculture, and related health impacts are serious, and will not be resolved without action. These include epidemics of obesity and diet-related chronic disease; climate change, to which agriculture contributes significantly; outbreaks of acute infections related to food contamination; chemical contamination of food, including pesticides; worsening antibiotic resistance linked to widespread antibiotic use in food production; agriculture-related pollution of water; and global food security problems, plus commodity speculation and price volatility.

Though the US food system is expected to respond to these challenges, there is ample evidence that instead it is often contributing to them and may be less and less resilient in the face of these challenges. In short, the US food system as it relates to the public's health appears to be at a crossroads. Part of the challenge is the size and complexity of the food system as a whole system. It is a "wicked problem," one not conducive to quick fixes or magic bullet approaches and one for which affixing blame often rolls downhill to those in the most precarious positions—farmers. On the other hand, because the existing system is often costly, resource intensive, and lacking in its ability to provide accessible, affordable, healthy food to all Americans, it also offers significant opportunity.

This set of research and policy recommendations is designed to identify arenas of activity that would provide policy-makers a coherent framework to support policy change that represents a "triple win"—to improve the health of the Americans, while also serving communities and the environment. Participants at the Airlie Conference share the sense that our current scientific base of understanding supports an alternative vision for a food system that is health based and more sustainable, that better supports healthy eating while also reducing pollution and water and fossil fuel use.