

# CULTIVATING COMMON GROUND

Linking Health  
and Sustainable Agriculture

## EXECUTIVE SUMMARY

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### Prevention Institute

is a nonprofit, national center dedicated to improving community health and well-being by building momentum for effective primary prevention. Primary prevention means taking action to build resilience and to prevent problems before they occur. The Institute's work is characterized by a strong commitment to community participation and promotion of equitable health outcomes among all social and economic groups. Since its founding in 1997, the organization has focused on injury and violence prevention, traffic safety, health disparities, nutrition and physical activity, and youth development.

# CULTIVATING COMMON GROUND

## Linking Health and Sustainable Agriculture

**A**t a time when awareness is at an all-time high that food is a key contributor to serious health threats including heart disease, diabetes, and cancer, the issue of diet has been elevated from a personal health issue to a public health crisis. This provides compelling reasons to link sustainable agriculture and public health, and clear opportunities to advocate for broad-reaching changes.

The current agricultural system has been largely directed towards providing the sweeteners, starches, and oils that are the basis of processed food. Federal agricultural subsidies favoring crops such as corn and soy have, in essence, underwritten the growth of the soft drink and fast food industries. Widespread marketing and availability of high-fat, high-sugar, and low-nutrition foods have set the stage for the burgeoning obesity epidemic and nutrition-related chronic disease. Moreover, the current system of agricultural production contributes to numerous other health problems including cancer, asthma, and antibiotic resistance by using pesticides, herbicides, antibiotics, and other synthetic chemicals that pollute the air, water, and soil.

Sustainable agriculture and health advocates are beginning to frame food systems issues in a manner that highlights the connections between their concerns. Clearly, there are challenges in bringing together a sector concerned primarily with how food is produced and distributed with one fundamentally concerned with the impact of nutrition-related chronic diseases on human health. Nonetheless, the opportunities to positively impact agriculture, the environment and health make this collaboration not only promising but essential.

Clarifying and reinforcing the connections between the current food system and the poor eating habits that result in chronic disease has the potential to create an influential partnership vital for the implementation of institutional and public policy changes. This was the impetus for *Cultivating Common Ground*, which outlines the differences between and opportunities among the health and sustainable agriculture sectors and suggests a roadmap for collaboration. In particular, the report focuses on how to engage health professionals as advocates for a just, sustainable and health-promoting food system.



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## LINKS BETWEEN AGRICULTURE AND HEALTH

### Over Production of a Range of Unhealthy Food Products

- US subsidies (direct and in-direct) create incentives to over produce crops that are integral ingredients in cheap, high-fat, high-sugar, processed foods. A high-fat diet and excessive calorie consumption are linked to chronic diseases such as obesity, high blood pressure, diabetes, coronary heart disease, cancer, and stroke.
- At least one-fourth of all energy intake comes from food groups that provide large quantities of refined sugar and fat and few micronutrients.<sup>1</sup>
- On an annual basis, US corn is consumed as follows: 1.2% as a vegetable, 8.0% as a sweetener, 50.1% as animal feed, 2.6% as starch, 5% as alcohol (ethanol), 22.6% as exports, 10.3% as reserve stocks, 0.2% as the seed.<sup>2</sup>

### Use of and Exposure to Toxins

- Pesticides used in conventional agriculture accumulate in the human body and can cause cancer, birth defects, decreased fertility, neurological damage and other health problems.<sup>3</sup>
- Every day, 9 out of 10 US children between the ages of 6 months and 5 years are exposed to combinations of 13 different neuro-toxic insecticides in the foods they eat.<sup>4</sup> More than 8 million Californians drink water from systems where some or all of the water is contaminated with nitrate levels above government health standards.<sup>5</sup>
- Hormones found in food may be associated with breast cancer and the increasingly earlier onset of human female puberty.<sup>6</sup>
- The use of agricultural chemicals known to cause cancer in California increased 127% from 1991 to 1998.<sup>7</sup>

### Dangers to Farmer & Worker Health and Safety

- Farmers and agricultural workers develop occupation-induced health problems from chemical exposures. Occupational exposures to pesticides have been associated with health problems including miscarriages, birth defects, and decreased sperm counts.<sup>8</sup>
- One health survey of California agricultural workers revealed that the predominantly young male work force is at high risk for chronic disease, due in part to difficulty accessing a healthy diet.<sup>9</sup>
- US family farmers typically lose money each year. Their average income declined by over 60% in 2001 alone.<sup>10</sup>
- Suicide is a leading cause of death for farmers.<sup>11</sup>
- Analysis of farm communities in Nebraska and Wisconsin show that the loss of 1 family farm results in the loss of 8 “white collar” jobs and the loss of 7 farms results in the loss of 1 business in town.<sup>12</sup>

### Antibiotic Resistance

- The use of antibiotics in animals is linked to antibiotic resistant strains of food poisoning bacteria and may cause reduced effectiveness of related antibiotics used to treat humans.<sup>13</sup>
- 70% of US-produced antibiotics are fed to animals to promote growth.<sup>14</sup>
- The American Medical Association adopted a formal resolution opposing the nontherapeutic use of antibiotics. The Centers for Disease Control and Prevention considers animal use of antibiotics to be the major cause of foodborne illnesses that resist treatment with antibiotics. The World Health Organization has called for an end to animal antibiotics important to human medicine.<sup>15</sup>

### Foodborne Illness

- 76 million Americans get sick every year: more than 300,000 are hospitalized, and 5,000 die from foodborne illnesses, according to estimates from the Centers for Disease Control and Prevention.<sup>16</sup>
- The crowded conditions of factory farms and the high-speed, automated methods of slaughtering and processing the animals increase bacterial contamination.<sup>17</sup>
- Salmonella cases in the US have doubled in the last 2 decades. Similar increases are reported for other foodborne bacteria.<sup>18</sup>
- As much as 8% of the weight of supermarket chicken is not meat, but a “fecal soup” from water used in processing chickens into meat.<sup>19</sup>

### Respiratory Illness and Poor Air Quality

- Non-sustainable methods of agricultural production contribute to poor air quality through pesticide drift, field dust, waste burning, gases from manure lagoons, and diesel exhaust from transporting food long distances.<sup>20</sup> Associated health problems include asthma, cardiovascular disease, lung cancer, and respiratory illness. Poor air quality also limits physical activity, increasing risks for chronic disease.
- Secondhand pesticides from pesticide drift, just like secondhand cigarette smoke, can cause serious adverse health effects.<sup>21</sup>
- 2.2 million Californians suffer from asthma, the number 1 cause of hospitalization for children. In Fresno, California’s leading agricultural county, childhood asthma is 3 times the national average.<sup>22</sup>

## Methods

Prevention Institute conducted interviews, led conversations and attended small group meetings with sustainable agriculture, health and public health professionals and advocates. Qualitative interviews focused on identifying mutual current and potential goals and activities, perceived barriers to collaboration, and proposed action steps to build common efforts between those traditionally working in the fields of health and sustainable agriculture.

## SUMMARY OF FINDINGS

Important themes emerged from these discussions. In some cases, there were clear opportunities to align existing efforts between the environmental and health sectors. In other cases, more effort will be required by each sector to understand the perspectives, ideas and goals of the other.

## DIFFERENCES IN PARADIGMS AND FOCUS

Achieving a strong partnership requires taking into account the different ways that the environmental and the health sectors approach the same issues. Four paradigm issues emerged from the interviews.

### Systems Orientation vs. Individual Orientation

People involved in sustainable agriculture are more likely to have a systems orientation. They are concerned about where food comes from, how it is produced and transported to consumers. The primary goal of health professionals concerned about nutrition-related disease is to change individual behavior so that people eat a healthier diet. Thus, the focus is on specific foods and/or nutrients rather than systems.

### Precautionary Principle vs. Indisputable Proof

The sustainable agriculture and environment sectors have adopted the Precautionary Principle in considering risk. This principle emphasizes that “when an activity raises threats of harm to health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.”<sup>23</sup> In contrast, the health sector tends to want to act only when there is indisputable proof of causal links.

### Appropriate Technology vs. High-Tech Fixes

The sustainable agriculture community tends to focus on enhancing natural systems to solve farming challenges, and is cautious in regards to new high-tech approaches to growing or processing food such as genetically-modified organisms or food irradiation. In contrast, the dominant paradigm in health is to embrace high-tech tools. Further, health professionals look for evidence that technology will directly harm individuals consuming the food they produce. Yet the most powerful arguments against these technologies relate to their systems impact, while the argument for technology’s impact on individuals may be more complex.

*“My experience from efforts (some of them substantial) to work jointly is that it doesn't really happen. Sustainable ag is about farmers and we are about consumers, and there is a very big gulf between us.”*

—NUTRITION ADVOCATE



*“I think antibiotic resistance is a good hook. The more physicians see the problem having a direct impact on clinical practice, the more they will care and the more they will respond.”*

—HEALTH PROFESSIONAL

## Movement vs. Discipline

Advocates of sustainable agriculture are engaged in a movement, whereas the majority of people in the health sector are professionals trained in a discipline. The difference between a movement and a discipline can be seen in the way each approaches change: Health practice is based on scientific data: data matters and is a driver for change, and when change occurs it is driven through well-entrenched leadership and established standards of operation. In contrast, advocates are motivated by a vision for change, there is a direct line between their values and what they are trying to achieve, and they derive their power from individual supporters.

## OPPORTUNITIES FOR COLLABORATION: INTERSECTING ISSUES

A number of areas of concern within both the sustainable agriculture movement and the health sector may provide opportunities for collaboration. Each of the seven areas described below can attract different elements of the health and the environmental sectors and build momentum by creating a more diverse and substantial partnership.

### Increasing Access to Healthy Foods in Neighborhoods and Institutions

Sustainable agriculture has an interest in expanding markets for smaller farms that use sustainable practices and health professionals are increasingly concerned with ensuring that their patients have access to healthy, appealing and affordable food. As one starting point for collaboration, sustainable agriculture advocates can work with the health sector in improving the nutritional quality of food in health facilities and in increasing retail access to fresh foods in underserved communities.

### Protecting the Food System

Bioterrorism was mentioned by public health professionals as an increasing component of their mandate and the sustainable agriculture sector noted that large, genetically-uniform farms can be a key target for bioterrorism. Local, small farms with non-uniform varieties of food can support the mandates of both sectors.

### Opposing Common Foes

Contesting common opponents with a strategic agenda also can be a vehicle for change. Among the common corporate foes are: industrial agriculture and the major food producers/distributors that both heavily market unhealthy food and employ unsustainable growing practices; pharmaceutical companies that sell antibiotics for use with livestock while emphasizing drug treatment rather than prevention to address obesity and chronic disease; and food-industry funded advocacy groups. An alliance between sustainable agriculture and public health needs to pick allies and enemies strategically since some companies may be important partners for change.



## Reducing Antibiotic Resistance

Antibiotic resistance is another area of mutual concern and interest. Sustainable agriculture advocates are concerned about the overuse of antibiotics in animal husbandry and the subsequent contamination of meat, poultry and the water table (through manure) with antibiotic-resistant bacteria and antibiotic residues. Physicians are facing a challenge in treating infections due to the rise of antibiotic-resistant bacteria. A campaign to change this element of agricultural production may draw physician support.

## Shifting Agricultural Subsidies to Support Production of Healthy Foods

Agricultural subsidies have risen to the top as a potential starting point for collaboration. Agricultural subsidies for corn and other special, low-cost pricing strategies are helping to increase consumption of soft drinks and fast foods (via the production of corn syrup and cattle feed), whereas, healthier foods are more expensive and harder to find. Careful policy analysis is needed to craft an overarching agricultural policy that meets the needs of farmers and consumer health.

## Protecting the Health of Farmers and Agricultural Workers

The health of farmers and agricultural worker are concerns of both sectors. In addition to addressing farmers' and workers' direct toxic exposures to pesticides, both sectors share concerns about how to keep farmers and agricultural workers healthy—providing adequate health care for the families as well as addressing key determinants of health such as housing.

## Minimizing Food Transport

Promoting locally-grown food and thus minimizing food transportation miles is another good rallying point. There are numerous reasons why locally-produced food is part of a sustainable system, including fuel conservation, decreasing the need for packaging and subsequent waste disposal, preserving farmland, and supporting biodiversity of crops evolved to fit the local ecology. From the health perspective, promoting locally-grown food helps to reduce health risks such as exposure to diesel fuel emissions, which can trigger asthma.

## IMPORTANT ISSUES TO RESOLVE BEFORE BUILDING PARTNERSHIPS

In building a partnership between the health and sustainable agriculture sector, several misconceptions, terms, values, and goals must be clarified or defined.

### The Concept of Sustainable Agriculture

In terms of partnerships with health, the primary characteristics of sustainable agriculture need more clarification. As the starting point to build collaboration between health and sustainable agriculture, emphasizing *local* and *fresh* (not highly processed) may be more beneficial in attracting the support of the health sector

## TEN REASONS WHY THE TIME IS RIPE TO LINK AG AND HEALTH

1. Everyone cares about health.
2. Health care is a huge and growing part of the GNP.
3. Health care is one of the top political campaign issues.
4. Obesity and food-related chronic diseases are leading health concerns with long-term consequences for the health of the nation.
5. The health care system is crumbling under the weight of higher costs, patient and physician dissatisfaction and increased demand for chronic care.
6. Health disparities—higher rates of diabetes, stroke, asthma, and other chronic diseases among African Americans, Native Americans, Latinos, and people with low incomes—are a primary public health concern related to the food system.
7. Good eating habits are one key to preventing chronic disease and reducing demands on the health care system.
8. Awareness is growing within the health sector that the environment is an important influence on individual health, both directly and as a mediator for eating and physical activity behaviors.
9. Increasing access to healthy food is an important strategy to prevent obesity and chronic disease.
10. Health sells. There is an opportunity to take back health claims from the processed food industry and attach them to fresh, local food.

than focusing on *organic*. Ideally, a health-sustainable agriculture collaborative will promote a vision of whole food—fresh or lightly processed—for all, including low-income communities.

### Perceptions of Organic Foods

While health professionals expressed a positive attitude towards organic/sustainable foods, there was also concern that it was beyond the scope of health care institutions to embrace them. Frequently, organic food was viewed as elitist and inaccessible except to those households with a fair amount of disposable income. In order to promote organic, the health sector needs to be convinced that it is about more than “boutique foods.” More rarely, organic was associated with health risks by health professionals.

### Sorting Out Cheap Food

The idea of “cheap food” is a potentially divisive issue. The relatively low retail price of food in the US is rejected by many in the sustainable agriculture movement because the retail price reflects neither the farmer’s costs of production or damage to the environment. On the other hand, health professionals who are focused on filling a dire need to bring affordable, nutritious food into low-income communities want food to be as cheap as possible. Collaboration may be furthered by reframing the issue to focus not on cheap food but on changing federal and state regulations, policies, and financial incentives that favor industrial agriculture and the production of highly-processed, unhealthy foods.



### Sustainable Agriculture Capacity

It is unclear whether an immediate transition from the current industrial food production system to one dependent strictly on sustainable practices could meet the food needs of the public. Thus, the transition to sustainable agriculture needs to be understood as a slower, more evolutionary process. Further, there need to be specific policy changes to support the development of a stronger infrastructure for sustainable agriculture, including distribution mechanisms.

### Clarify Relationship with Industry

Despite some common interests in challenging its practices, the sustainable agriculture and health sectors generally have different relations with, and outlooks toward, industry. Within the health care sector, predominant thinking is that major food processing companies and marketers need to be a part of the solution. Within sustainable agriculture, many advocates believe that the best way to transform the food system is to establish and build an alternative system that will eventually replace industrial agriculture. As collaboration moves forward, it is important to be strategic about when and where to mount challenges and to set clear criteria for partnerships with industry.



## RECOMMENDATIONS TO DEVELOP A COLLABORATIVE

Given the obstacles, opportunities, and issues for clarification outlined above, Prevention Institute proposes a set of recommendations to initiate and strengthen a collaborative movement for a healthy, just, and sustainable food system:

### Build the Big Tent to Foster Cross-Sector Collaboration

Both sustainable agriculture and nutrition-related chronic disease prevention are important sub-groups within much larger fields: the environmental and health sectors, respectively. The two sub-groups will be most effective if they disseminate a consistent vision to their respective sectors: that food production and consumption are interrelated in their impact on health and the environment. It is important to conduct these efforts in a way that prioritizes social justice. Improvements in the food system must benefit the whole community and pay particular attention to those who are most deeply affected by current health and food access inequities.

### Build Familiarity and Develop a Cross-Sector Strategy

A leadership group of broad thinkers—sustainable agriculture, health, environmental, and social justice—should be brought together to engage in a deliberate process of interdisciplinary strategy development. There are already several important collaborative efforts underway. The leadership group should systematically assess the status of current efforts and examine key elements such as the objectives, data, methods, infrastructure, and values of each sector.

### Frame the Issues to Be Inclusive of All Sectors

There were a number of differences noted in how each sector viewed end goals and concepts such as sustainable, organic, or cheap food. This report primarily delineated issues related to sustainable agriculture and health, however, strategy discussions and focus groups with leadership should be utilized to further clarify the “frame” that can draw in all constituencies including social justice. The authors of this report recommend that the overall frame, best reflective of all the elements of sustainable agriculture and responsive to the concerns of health and social justice, be “fresh food” or “farm fresh.”

### Conduct Training and Cross-Training

Successfully implementing organizational changes and policy will be more effective if there is broad support across sectors. Therefore resources should be devoted to providing the sectors with information about the issues and an action agenda for organizational and policy change. Presentations and materials should be appropriately framed and targeted for each sector. Extensive education and outreach will help establish an advocacy cadre that can be recruited to participate in campaigns such as those described below.



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*The overall frame, best reflective of all the sectors, is “fresh food” or “farm fresh.” The concept of fresh food carries the overall vision of sustainability without tying it too rigidly to the specifics and details that may lead to objections.*

*"I think everyone regardless of income deserves the benefits of organic and pesticide-free food, but since these options are usually more expensive, it's hard to make the case from a strictly anti-hunger perspective."*

—ANTI-HUNGER ADVOCATE



## Develop Campaigns to Promote Changes, Organizational Practices and Policy

Successful efforts in other fields reveal that the strongest partnerships often emerge through joint campaigns aimed at changing organizational practices and government policy. The policy-making processes of government present a critical opportunity for collaborative intervention because the industrial food system is supported by a web of regulations that favor specific commodities and large-scale, resource-intensive, and polluting methods of production. Four issues appear to have the most potential for mutual effort:

### ■ PROVIDE FRESH FOOD IN HEALTH CARE INSTITUTIONS

A number of health organizations are starting initiatives to utilize local and sustainably-grown produce in their facilities or to establish farmers markets. Making fresh food available to staff, patients, and nearby community residents through cafeterias, farmstands, farmers markets, or food boxes will help build the appreciation of staff and community for these products. It is important that every institution supportive of these products have an organizational policy supporting sustainable agriculture and sustainably-grown food in its facilities. These changes in health institutions can help set a norm for the rest of society.

### ■ ENSURE FRESH FOOD IN EVERY NEIGHBORHOOD

Given the higher burden of nutrition-related chronic disease on communities of color and underserved communities, making sure all neighborhoods have a good selection of affordable, healthy, culturally-appropriate foods is essential. There are a variety of models for improving food access in neighborhoods ranging from farmers markets, to improving food in small stores, to farm stands, or to re-establishing certain supermarkets. For fresh food to truly be available, a combination of strategies needs to be put in place. Promoting fresh food can open the door to supporting smaller farmers and can contribute to the long-term goal of all products being sustainable.

### ■ PROMOTE AGRICULTURAL SUBSIDIES FOR FRESH FOOD

Attention to the relationship between agricultural subsidies for corn and cheap, high-calorie foods opens the door to a campaign to shift these commodity subsidies to support production of healthy, sustainably-produced products that reach the market as fresh foods. While commodity supports have not been the sole driver of high-calorie, low-nutrient foods in our society, making the link between subsidized foods and diabetes, stroke and dental disease is a persuasive argument.

### ■ ELIMINATE THE USE OF NON-THERAPEUTIC ANTIBIOTICS

Although antibiotic resistance is distantly related to concerns about chronic disease, it most directly builds a bridge to clinical practice. A campaign to eliminate non-therapeutic antibiotics can both educate physicians in a very direct and immediate way about the ills of industrial agriculture and engage them in advocating for change.

## CONCLUSION

It is clear that food is one of the most fundamental issues affecting human health and the health of the environment. Therefore, creating a sustainable food system that supports healthy consumption habits has the potential to be a central goal for both sustainable agriculture and health care, and to have resonance community-wide.

This report provides the backdrop for determining the strategy that could successfully link the concerns of both groups. Promoting fresh food as the key to human health and the health of the environment can change policies, norms, and vision throughout the nation. An opportunity exists for the establishment of a bigger tent that incorporates the agricultural sector, the environmental movement, the health sector, and social justice initiatives for greater power and impact. The policy-making processes of government and organizational practices present a critical prospect for intervention to change regulations that support large-scale, resource-intensive, and polluting methods of production. Building trust and momentum between the sectors is one way to promote a just, healthy and sustainable food system.



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