

Sustainability & Health

Healthy Food for Healthy Communities (Part I)

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Alliance for Sustainable Communities–Lehigh Valley

Sustainability & Health Initiative

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Healthy Food for Healthy Communities

Introduction

It has long been said that, “*You are what you eat.*” Science has now confirmed the truth of this common-sense saying—but the findings are cause for great concern: We now know that much of the food in our stores, restaurants, and institutions does not sustain the health of those who eat it, but instead causes or directly contributes to health problems. This must change. Every day, tens of thousands of people here in the Lehigh Valley eat food served by large institutions—colleges and universities, schools, and hospitals—so it is extremely important that they serve food that protects, sustains, and contributes to health.

The prevalence of so much food that causes health problems becomes a major public health concern. We urge Community Health professionals to go beyond just preventing or treating illnesses and find ways to make sure institutions serve food that promotes wellness instead of causing or contributing to health problems. It seems obvious that healthcare providers have a special obligation to avoid food and food-service practices that are known to be detrimental to public health, but we believe that the mandate to “Do no harm” also applies to other institutions that we trust to provide care. The Association for the Advancement of Sustainability in Higher Education, Institute for Agriculture Trade Policy, Center for Health Design, Robert Wood Johnson Foundation, and Food Trust are just a few of the many organizations have recognized how the industrialized food system undermines our goal of promoting health.

This proposal outlines several recommendations to make food service operations more sustainable and to reduce the harm they can cause. (Although it focuses on institutions, the same principles apply to smaller establishments and to individuals.) It draws upon a variety of sources, including the Healthy Food in Health Care pledge* from Health Care Without Harm. Community Health professionals can make a substantial contribution to public health and wellness by actively working to:

- Increase the use of healthy food and reduce use of unhealthy food;
- Urge institutions to develop sustainable procurement systems that provide respect for the health and wellbeing of farm workers, their families, and the communities where food is grown;
- Educate staff, patients, and community about the importance of such food; and
- Minimize food waste and other waste from food service operations.

The Problems with Industrialized Agriculture System

According to the Union of Concerned Scientists, industrial agriculture ‘views the farm as a factory with “inputs” (such as pesticides, feed, fertilizer, and fuel) and “outputs” (corn, chickens, and so forth)...’¹ Many of the ‘inputs’ used to maximize production are harmful to human health, and much of the food produced in our industrialized food system is deficient in nutrients and contains harmful levels of the chemicals used to enhance production.

The artificial fertilizers, pesticides, and preservatives used in the large-scale industrialized agriculture system can leach into groundwater and are toxic to people and animals. Even with all the chemicals that are used, though, of the food from our industrialized food system is deficient in nutrients and contains harmful levels of the chemicals used to enhance production.^{2,3,4,5} These methods of food production harm the farm workers and the communities whose water and air is polluted by runoff and aerial spraying; in addition, much of this food harms the people who eat it.

Misuse of antibiotics is another critical problem. Antibiotics are widely used to prevent disease and promote growth in livestock raised in Concentrated Animal Feeding Operations (CAFOs)—sometimes

* A copy of the Healthy Food in Healthcare pledge is attached. (As of this writing, 284 hospitals have signed the pledge.)

called ‘factory farms’— and it is estimated that over 85% of all antibiotics used in the U.S. are used for food production, not for treatment of human illness.^{6,7} This indiscriminate use promotes the development of antibiotic-resistant bacteria.

Food that is nutritionally deficient and harmful to those who eat it, combined with the public-health impacts of massive environmental pollution are clear indicators of systemic failure in the food system.

As Health Care Without Harm put it in ‘Menu of Change’⁸:

Clearly, our industrialized food system, the way in which we produce and distribute food, is failing to protect public health. Poor nutrition is a risk factor for four of the six leading causes of death in the United States—heart disease, stroke, diabetes and cancer. Nutrition-related chronic diseases are placing new demands on an already overburdened health care system and taking their toll on human productivity and quality of life.

This industrialized food system favors the production of animal products and highly-refined, calorie-dense foods, rather than fresh fruits and vegetables, whole grains, and other high fiber foods important for health... [and relies on] methods of production and distribution that negatively affect human and environmental health.

In addition to the many direct health impacts, the industrialized agriculture system also produces greenhouse gas (GHG) emissions that cause and contribute to global warming and climate instability, while organic farming reduces emissions and actually sequesters carbon in the soil. We would be remiss if we considered public health impacts of industrialized agriculture without a few words on global warming, which will become an increasingly important public health issue. Most of us have heard dire predictions for those living on islands and low-lying coastal areas, but it’s worth noting that Pennsylvania will also feel some profound impacts, including more-frequent episodes of extreme heat in summer, more precipitation in winter, higher levels of ground-level ozone, higher pollen levels, and other air-quality problems; diseases borne by vectors such as mosquitoes and ticks are expected to be more of a problem.⁹ Many other sectors will also be impacted, and some of these changes will, in turn, create other health impacts as well.

Food That Promotes Health and Wellbeing

Food that is grown sustainably avoids these problems.¹⁰ Switching to such food reduces the levels of pesticides in humans and prevents some of the negative health impacts. In addition, organically grown food has higher nutritional value, with significantly higher levels of Vitamin C, magnesium, phosphorus, iron, and other nutrients.¹¹

Sustainably- and locally-grown food

Institutions should be urged to adopt policies that significantly increase the percentage of food that is sustainably or organically grown, with an eventual goal of replacing all items that are not sustainably grown within, say, five years. This not only allows serving farm-fresh food, it supports local farmers and the local economy. For institutions, this often means food that is certified organic, but by working with local farmers, it is also possible to have food that is naturally grown even if it is not certified organic. Organic growing has also been shown to significantly reduce greenhouse gas (GHG) emissions, so it helps to mitigate global warming, which is a major concern for public health. In addition to the health benefits, institutions can make a powerful positive impact on the region by purchasing from local growers.

Two steps that are particularly easy to implement immediately are to purchase milk and dairy products only from dairies that do not use bovine growth hormone (rBGH) or antibiotics to increase production and to purchase pasture-fed meat and free-range poultry and eggs from local farmers who use sustainable methods. (Commercial claims of ‘cage free’ and ‘free range’ or ‘pasture fed’ have little meaning, even on food that is certified organic; so there is no substitute for direct contact with a local producer.)

Some unhealthy products of the industrial food system are harder to eliminate because alternatives are not quite so readily available. For example, many processed foods and sweetened beverages use high-fructose corn syrup, despite the fact that this sweetener has been shown to contribute to diabetes and obesity and to be carcinogenic.⁵ Unfortunately, it is present in so many foods that it is critical for institutions to identify, purchase, and serve healthy alternatives and make a real effort to inform people about these hazards.

Fair Trade

Of course, people want some products that cannot be grown locally. Our commitment to public health should not be restricted to those who live in our own community, and institutions should be urged to take steps to make sure all their suppliers protect environmental health, avoid use of toxic chemicals, and treat workers fairly.

The Fair Trade model supports sustainable development and community empowerment through a market-based trade system that benefits farmers, workers, consumers, industry, and the environment. A certification system ensures that commodity producers, many of whom are in the global South, receive fair pay for their work and have education and health care for themselves and their families. It also requires sustainable agricultural practices, so many Fair Trade Certified products are also certified organic. As of this date, Fair Trade certification is available for coffee, tea, cocoa & chocolate, vanilla, sugar, tropical fruit, and rice, as well as a number of non-food products. No other certification program provides such broad protections.

We support the Healthy Food in Health Care pledge commitment to uphold the dignity and health of those who produce the food we serve. Institutional food-service providers should act promptly to replace current (non-Fair Trade) products with Fair Trade Certified products. Coffee is probably the best place to start, since it is a high-volume commodity and has a corresponding impact on the environment and on the health and wellbeing of producers. Fair Trade coffee is readily available from local and national roasters, and there is very little difference in cost between Fair Trade Certified coffee and coffees of similar quality. After coffee, Fair Trade tea, chocolate, and bananas should be introduced as rapidly as possible along with other products as they become available. Many suppliers carry or can obtain Fair Trade products.

Institutions should be encouraged to become part of the solution. Hospitals and other healthcare institutions should adopt the Healthy Food in Health Care pledge and make a commitment to implement it as quickly as they can, and other institutions should be encouraged to make similar commitments.

Education

Community education about food is one of the central components of the Healthy Food in Healthcare Pledge and a natural part of the Community Health mission. People often make poor food choices because they are unaware of the health risks associated with food from the industrialized food system. Increasing the demand for more healthy food will also help drive down costs and make healthy food more accessible to the public. Educating the community about sustainable and healthy food choices will help improve health throughout the community. A comprehensive education program should include public presentations and informative materials available to the public.

The need for community education about healthy food

The industrialized food system has done an excellent job of marketing food that is nutritionally deficient and actually harms people's health. To protect the health of staff and of the community as a whole (and in the case of hospitals, the health of their patients!), public health professionals need to respond with a clear educational 'marketing' campaign to correct the record and help people understand that healthy food choices—food that is produced sustainably, without the use of artificial fertilizers, pesticides, or additives and without the use of growth hormones or antibiotics—is critical to health.

In addition to public presentations, educational brochures and newsletter articles on healthy food choices should be part of a comprehensive effort to improve community health by improving food choices.

Make information available where food decisions are made

Food service operations provide an excellent opportunity to help people learn about healthy and sustainable food and the critical relationship of food to health. One easy way to initiate this education is to label each dish. In addition to traditional nutritional information for the dish as a whole, this should include the location from which each food/ingredient comes and should identify which dishes or ingredients are certified organic or Fair Trade. The same labels should clearly indicate which dishes are appropriate for vegetarian, vegan, Kosher, or Islamic diets.

When coupled with educational information about the effects of various foods, this simple step empowers purchasers to make better choices. The same system should, of course, also help people avoid foods that contain known allergens or asthma-triggering components such as sulfites. This type of food labeling system would help increase public awareness of the direct relationship of food to health and accommodate many diverse diets. At the same time, it is surprisingly simple and inexpensive to implement.

Encourage and support community gardening

Although it is not directly connected to food in large institutions, community gardening is an important alternative to over-processed institutional food and a source of natural low-stress exercise. For purposes of this proposal, we think backyard gardening is equally important, especially if supported by promoting shared information and experiences among members of the community.

Gardening not only helps people produce healthy food, it helps people change their relationship with food and to become part of the process that brings food to their plates, which helps them see the connections between food and health¹² and gain a sense of productivity and accomplishment. Gardening also has many direct health benefits: it strengthens the immune system, improves overall fitness, and lowers the incidence of asthma in participants. Gardening also is often associated with increased hand strength for those who suffer from arthritis.¹³ Community gardens are an excellent way for people to get healthful outdoor exercise that tends to decrease stress and anxiety.¹⁴

Here in the Lehigh Valley, there are several potential partners for community-gardening efforts, including Lehigh University's South Side Initiative (Southside Community Gardens project), SUN*LV (Sustainable Urban Neighborhoods of the Lehigh Valley), and Community Action (CACLV) and its West Ward Neighborhood Partnership, to name just a few. We urge public health professionals to actively support community gardening efforts and encourage people to participate in community or backyard gardening projects.

Waste from Food-Service Operations

With institutional service, what is *not* eaten is an important part of sustainable practices that contribute to public health. Commercial kitchens create a large amount of waste in preparation, leftovers, and food left on plates; this waste pollutes groundwater, generates greenhouse gas (GHG) emissions, and increases disposal costs. It is not enough to change the food we serve—it is also important to stop filling our landfills with polluting waste from institutional food-service operations. The problem is complex, but the solution is not: eliminate single-use products, close the food loop by composting food waste, and recycle containers and packaging materials.

Switch to reusable food-service products

Single use products such as styrene plates, cups, and utensils are costly and wasteful by nature. Reusable plates, cups, mugs, and utensils pay for themselves in a period of months and then continue to reduce costs every month. By using fewer single-use products, institutions will save money *and* improve environmental

health. Plastic cups and utensils cannot be composted, so it is especially important to make this change before attempting a compost program.

The problem of single-use products is especially problematic when they are made of plastic, especially styrene and Styrofoam. These products are used in high volumes—an estimated 25 billion Styrofoam cups are discarded each year—and the environmental and health impacts are enormous. A 1986 EPA report named polystyrene manufacturing as the fifth-largest creator of hazardous waste. In addition, styrene and Styrofoam products are often discarded as litter, and it is notorious for breaking up into pieces that choke animals and clog their digestive systems, and it is a significant ingredient in the ‘great pacific garbage patch’, a gyre—now twice as big as the state of Texas—of toxic plastic refuse that has been reduced to small particles and enters the food chain after it is consumed by marine animals.

Workers where styrene and Styrofoam are manufactured often suffer acute health problems. Styrene is classified as a possible human carcinogen by the EPA and by the International Agency for Research on Cancer. Chronic exposure reportedly affects the central nervous system and can cause disrupt kidney function and blood chemistry. When used in food service, trace quantities of the toxic components can be absorbed into the food, threatening human health and reproductive systems. (The harmful effects are increased when used with hot food and especially when heated in a microwave.)

Ideally, this transition would be made immediately, but it is also possible to phase in the changes over a period of several weeks: (1) Switch to bulk dispensers for all condiments in the cafeteria and institute a nominal charge for single-use packets. (2) Provide reusable mugs and glasses for beverages served in the cafeteria and biodegradable cups at the kiosks; offer a significant discount for customers who supply their own reusable beverage container. (Consider offering ‘branded’ stainless steel mugs and water bottles for sale.) (3) Eliminate single-use plates, to-go containers, and utensils; in the cafeteria, replace with reusable items (including reusable to-go containers); in the kiosks, use biodegradable plates, cups, and utensils.

Compost food waste

Most food waste ends up in a landfill, but much of this waste can be composted and used as a natural fertilizer. This compost is rich in nutrients and organic materials and can be used by local farms or in community gardens as a natural, non-toxic fertilizer. Composting food waste renews the natural cycle, restoring nutrients and organic matter to the soil, reduces greenhouse gas (GHG) emissions, reduces pollution from artificial fertilizers, and further reduces the volume of solid waste going to the landfill. (The compost can be used as a non-toxic, organic fertilizer for local farms or community gardens.) Food service operations can utilize commercially-available food pulpers to reduce the volume and weight of food waste by up to 80%. The initial cost is rapidly offset by reducing the amount of waste going to a landfill.

Note: By recommending composting, we do not mean to discourage donation of leftover food to organizations that serve the needy. In fact, we think this is a very important responsibility of all large institutions that serve food in our communities. (Donations can be made directly to individual local organizations that serve the needy or to distribution organizations such as Second Harvest Food Bank.) The federal ‘Good Samaritan law’ provides extensive protection to institutions and individuals who donate food to the needy; if restrictive policies prevent food from being shared, they should be changed as soon as possible.

Recycle as much as possible

Recycling drastically reduces the demand for extraction of new resources and for the energy used in manufacturing, so all institutions should be urged to establish an effective recycling program for glass, plastic, cans, corrugated cardboard, and other containers and packing materials—including those used in the kitchen and containers used by patrons. This will, of course, also help reduce the amount of waste produced from food services.

An effective program requires more than a system that allows recycling—the institution must take responsibility for the success of the recycling program and provide a system that is convenient and easy to use, coupled with appropriate education and reinforcement in the importance of recycling.

Conclusion

As people, businesses, and institutions realize that food choices have a profound impact on the health of people and ecosystems, more and more are choosing to be part of the solution. Responsible purchasing policies allow institutions to leverage their purchasing power to improve environmental and public health in the communities they serve and in the communities where purchased items are produced, allowing them to go beyond delivering health care services to actually helping to prevent health problems. We can provide model policies for healthcare, higher education, and other institutions.

Where promoting people’s health is a primary concern, it is especially important to examine the effects of our actions and to make the right choices. Sustainability in food services, like other areas of operation, is critical to living up to the call to “Do no harm”.

This proposal is the product of research and recommendations by students Kaylee Christ and Ali Schklair (Muhlenberg College) and Clarissa Browne (Lafayette College), and preliminary research and recommendations by Brenna Bowman (a 2009 graduate of Lehigh University) and Codi Gauker (Moravian College).

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¹ ‘Industrial Agriculture: Features and Policy’. Union of Concerned Scientists. 2007.

² ‘Redefining Healthy Food: An Ecological Health Approach to Food Production, Distribution, and Procurement’; Center for Health Design; 2006.

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⁹ Climate Change in Pennsylvania: Impacts and Solutions. Union of Concerned Scientists. 2008.

¹⁰ ‘Cultivating Common Ground’. Prevention Institute. 2004.

¹¹ Virginia Worthington. *Journal of Alternative and Complementary Medicine*. April 2001, 7(2): 161-173.

¹² *Community Gardening*. Brooklyn Botanical Garden. 2008

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¹⁴ L. Corkery, B. Judd, & S. Thompson. The Role of Community Gardens in Sustaining Healthy Communities. *Faculty of the Built Environment*. 2007.