



# Compendium of Model Sustainability Practices

# health

**ECO-CITY ALEXANDRIA**  
environment | economy | community



# HEALTH

---

## INTRODUCTION

The health of a community's natural and physical environments is essential for the health of its residents. Health, as defined by the World Health Organization, is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." A healthy community, as defined by the U.S. Department of Health and Human Services *Healthy People 2010* report, is a community that supports and continuously creates and improves the health of its physical and social environments, thereby "helping people to support one another in aspects of daily life and develop to their fullest potential."

Therefore the design of cities, towns, and neighborhoods greatly impacts not only the health of the physical environment, but also the health of people living within this environment. The Centers for Disease Control and Prevention defines healthy places as those "designed and built to improve the quality of life for all people who live, work, worship, learn, and play within their borders—where every person is free to make choices amid a variety of healthy, available, accessible, and affordable options."

In consideration of the linkages between human health, the built environment and the physical environment, an ecologically sustainable city is one in which all environments—the natural/physical environment, the built environment, the food environment, the work environment, the home environment, the school environment, etc.—work together as a single ecological system to ensure that the city is a great place to live, work and play for decades to come.

Many local governments, community groups, and private and public organizations across the country are taking great strides to improve the environmental health of their communities in order to create vibrant, ecologically sustainable, healthy places for their residents. Through their efforts, these organizations and individuals are making crucial connections between health and other environmental policies and programs—parks and open space, transportation, indoor and outdoor air quality, water quality, energy consumption, climate change, and waste management. From the development of environmental health related zoning ordinances, the inclusion of health and wellness elements to general or comprehensive plans, the implementation of health impact assessments, the creation of public health master plans, and the formation of public-private partnerships and multidisciplinary coalitions, these communities are changing the way health, environmental, and sustainability issues are addressed.

The model program and practices included in this section are divided into five subsections:

- Built Environment
- Food Systems & The Environment
- Health Promotion
- Indoor Air Quality
- School Environment

The **City of Alexandria** has taken significant steps to assess and improve the overall environmental health of the city. In 2002, Alexandria became one of eight communities in the country to develop and implement a community environmental health assessment (PACE-EH), funded by the Centers for Disease Control and Prevention. An initial report, *A Healthy Outlook: The Alexandria Community Health Assessment*, was released in 2004 and the final report, *An Environment for a Healthier Alexandria*, was released in 2007. The City also worked with the INOVA Health System to complete a child/adolescent obesity survey in 2007. Furthermore, numerous school-related programs (such as Alexandria City Public Schools' Safe Routes to School program, Walking Club and School Wellness Policy), health interventions (such as Alexandria Restaurants, Proud to Be Smoke Free Program) and community coalitions (such as Partnership for a Healthier Alexandria) actively promote public and environmental health. The development of a comprehensive strategy to address the many facets of environmental health however, is needed for the creation of a truly sustainable, healthy environment that supports the physical as well as social environment.

Reversing obesity and improving the overall health of our physical, natural and built environments requires a comprehensive, multi-disciplinary approach. All levels of government, health care providers, health professionals, non-profit organizations, schools, businesses, families and individuals have a role to play in the creation of healthy, sustainable communities.

The **model programs and practices** that follow are excellent examples of how different disciplines and stakeholders can come together to address health, nutrition, environmental, economic and sustainability-related issues of a community, all within the context of environmental health.

The following model programs and practices and supplemental programs are included in each subsection:

- Built Environment--the Planning and Public Health Connections
  - Health Impact Assessment (San Francisco, CA)
  - Public Health Master Plan (Seattle & King County, WA)
  - Transit-Oriented Development (Milpitas, CA)
  - Form-Based Codes (Petaluma, CA)
  - Land Use Health Team (Ingham County, Michigan)
  - Livable Communities Program (Riverside County, CA)
  - Planning for Public Health (Denver, CO)
  - Thriving Communities (Denver, CO)
- Food Systems & The Environment
  - Food Policy Council (Portland, Oregon)
  - Community Garden Program (Seattle, Washington)
  - Food Waste Recycling & Composting Program (King County, Washington)
  - Food Systems Planning (Madison, WI)
  - Community Food Assessment (East Austin, TX)
- Health Promotion
  - Employee Wellness Program (Arlington County, VA)
- Indoor Air Quality

- Indoor Air Quality in Residences (Cuyahoga County, Ohio)
- Indoor Air Quality in Residences (Kansas City, Missouri)
- Indoor Air Quality in Schools (Hartford, Connecticut)
- Integrated Pest Management in Schools (Marin County, California)
- School Environment
  - Farm to School Program (Rappahannock County, Virginia)
  - Food and Nutrition Education (Berkeley, CA)

In addition, this section also includes a list of **useful resources and references** on healthy places, active living, healthy eating, food systems, and other health and environmental related topics.

## **BUILT ENVIRONMENT—THE PUBLIC HEALTH AND PLANNING CONNECTIONS**

The **built environment**—including buildings (housing, schools, workplaces, retail shops, etc.), land uses (industrial, commercial, or residential), public resources (parks, museums, open space, etc.), transportation systems (roads, highways, transit, bicycle lanes, sidewalks, etc.) and infrastructure (automobile and bicycle parking, recreational facilities, shower facilities, street furniture, etc.)—directly and indirectly impacts health and nutrition.<sup>96</sup> For example, the presence or absence of sidewalks will either influence or deter walking; the presence or absence of healthy food stores will either encourage or deter the purchase and subsequent consumption of healthy foods. The design of cities, towns, communities, and neighborhoods in terms of the layout of streets and highways, the location and prevalence of supermarkets, the presence of sidewalks and bicycle lanes, the presence of worksite recreational facilities, the proximity of offices/shopping centers/food stores/restaurants to residential homes or apartments, greatly impacts overall health.<sup>97</sup>

Despite scientific evidence of the health-enhancing effects of physical activity,<sup>98,99,100</sup> the majority of American adults, 62% of persons 18 years and older (57% men and 66% women), do not participate in any type of vigorous leisure-time physical activity lasting 10 minutes or more per week.<sup>101</sup> Although physical activity decreases the risk of obesity and associated chronic disease (such as cardiovascular disease, diabetes, and some cancers),<sup>102,103</sup> the most recent estimates of

<sup>96</sup> National Institute of Environmental Health Science.

<sup>97</sup> Sallis JF, Frank LD, Saelens BE, Kraft MK. Active transportation and physical activity: opportunities for collaboration on transportation and public health research. *Transportation Research* 2004;Part A:249-268.

<sup>98</sup> Prentice A, Jebb S. Energy intake/physical activity interactions in the homeostasis of body weight regulation. *Nutrition Review* 2004;62(7):S98-S104.

<sup>99</sup> Keim NL, Blanton CA, Kretsch MJ. America's obesity epidemic: measuring physical activity to promote an active lifestyle. *Journal of the American Dietetic Association* 2004;104:1398-409.

<sup>100</sup> Patrick K, Norman GJ, Calfas KJ, et al. Diet, physical activity and sedentary behaviors as risk factors for overweight in adolescence. *Arch Pediatr Adolesc Med* 2004;158(4):385-90.

<sup>101</sup> Summary Health Statistics for U.S. Adults: National Health Interview Survey, 2004. U.S. Department of Health and Human Services, 2006. (Accessed September 28, 2006).

<sup>102</sup> Obesity Still a Major Problem. National Center for Health Statistics, 2006. (Accessed September 28, 2006, 2006, at [http://www.cdc.gov/nchs/pressroom/06facts/obesity03\\_04.htm](http://www.cdc.gov/nchs/pressroom/06facts/obesity03_04.htm))

<sup>103</sup> Indicators for Chronic Disease Surveillance. *Morbidity and Mortality Weekly Report* 2004;53(RR11):1-6.

obesity and overweight show that over 66% of adults (20 years and older) are overweight or obese; and 17% of adolescents (12-19 years) and 19% of children (6-11 years) are overweight.<sup>104</sup>

Between 1985 and 2003, the percentage of workers commuting by personal vehicle increased from 86.5% to 88.1%, while the percentage of workers commuting by public transportation, walking, and bicycle decreased from 5.1% to 4.4%, 4.0% to 2.7%, and 1.0% to 0.6%, respectively.<sup>105</sup> Since 1995 the percentage of daily trips made in a personal vehicle increased from 77% to over 91%.<sup>106,107</sup> In 2001, only 8.6% of all daily trips were made by walking and only 1.5% by transit; the average American spent 55 minutes driving on average 29 miles per day; and the number of vehicles surpassed the number of drivers per household.<sup>108</sup>

People engage in physical activity for a variety of reasons: (1) leisure, (2) home-based chores, (3) occupational demands, and (4) transportation.<sup>109</sup> Before the introduction of the car, people were forced to walk or bike to travel from place to place. Active transport therefore was a natural, unintentional part of people's daily routines. Whether someone participated in leisure, intentional exercise or not, they still engaged in physical activity. Unfortunately, communities and neighborhoods are not designed and planned in the same way. Older cities and towns planned and built before the era of the automobile were "based on the practical idea that stores and services should be within walking distance of residences." However modern cities and towns are planned and built based on the "supposition that people will drive to most destinations."<sup>110</sup> Even if people want to intentionally engage in active transport, often the distance between work, home, school, food stores, and shopping is too long or not safe to travel by foot or bike; thus people must depend on their car as their primary mode of transportation.

Obesity is not only the result of interactions between genetic and behavioral factors, but also the result of the environment, and specifically the built environment. Thoughtless development and unmanaged growth can create a built environment that may discourage healthy eating and physical activity. Therefore the built environment may prove to be an essential point of intervention to promote and enhance opportunities for healthy living.<sup>111</sup>

---

<sup>104</sup> National Health and Nutrition Examination Survey 2003-2004. (Accessed September 15, 2006, at [http://www.cdc.gov/nchs/about/major/nhanes/nhanes2003-2004/nhanes03\\_04.htm](http://www.cdc.gov/nchs/about/major/nhanes/nhanes2003-2004/nhanes03_04.htm).)

<sup>105</sup> National Transportation Statistics 2005. U.S. Department of Transportation, 2005. (Accessed November 13, 2006, at [http://www.bts.gov/publications/national\\_transportation\\_statistics/2005/html/table\\_01\\_38.html](http://www.bts.gov/publications/national_transportation_statistics/2005/html/table_01_38.html).)

<sup>106</sup> 1995 American Travel Survey, U.S. Profile. U.S. Department of Transportation, 1997. (Accessed November 13, 2006, at [http://www.bts.gov/publications/1995\\_american\\_travel\\_survey/us\\_profile/index.html](http://www.bts.gov/publications/1995_american_travel_survey/us_profile/index.html).)

<sup>107</sup> NHTS 2001 Highlights Report, BTS03-05. Washington, DC: U.S. Department of Transportation, Bureau of Transportation Statistics; 2003.

<sup>108</sup> NHTS 2001 Highlights Report, BTS03-05. Washington, DC: U.S. Department of Transportation, Bureau of Transportation Statistics; 2003.

<sup>109</sup> Leisure encompasses all intentional based exercise; home-based exercise includes all domestic chores and gardening; occupational-based exercise includes the physical demands of a job such as heavy lifting; and transportation-based exercise equates to active transport or using the human body as the vehicle of transport.

<sup>110</sup> Jackson RJ, Kochititzky C. Creating A Healthy Environment: The Impact of the Built Environment on Public Health. Centers for Disease Control and Prevention. Sprawl Watch Clearinghouse Monograph Series.

<sup>111</sup> Srinivasan S, O'Fallon LR, Deary A. Creating Healthy Communities, Healthy Homes, Healthy People: Initiating a Research Agenda on the Built Environment and Public Health. *Am J Pub Health* 2003;93(9):1446-1450.

## 1. Health Impact Assessment<sup>112</sup>

**Location:** San Francisco, California

**Department:** San Francisco Department of Public Health, Program on Health, Equity and Sustainability

**Description:** Like many metropolitan areas, San Francisco must contend with multiple, and often competing, interests and needs as it makes decisions regarding economic and land use development. Ideally, City decisions will strike the right balance among social, economic, and environmental interests. However, despite the complementary goals of urban planning and public health, health considerations are typically left off of the scales.

The Eastern Neighborhoods Community Health Impact Assessment (ENCHIA) was an 18-month long process to assess the health benefits and burdens of development in several San Francisco neighborhoods, including the Mission, South of Market, and Potrero Hill.

Using a set of methods broadly referred to as “Health Impact Assessment” (HIA), the ENCHIA process reflected growing scientific understanding that optimal health could not be achieved by health services and individual behaviors alone but through healthful neighborhood conditions including adequate housing; access to public transit, schools, parks and public spaces; safe routes for pedestrians and bicyclists; meaningful and productive employment; unpolluted air, soil, and water; and, cooperation, trust, and civic participation.

The ENCHIA process resulted in a number of important outcomes. Among them are:

- Producing a vision of a Healthy San Francisco;
- Developing community health planning objectives to reflect that Health City Vision;
- Identifying indicators to measure those objectives and vision;
- Generating and presenting data on those objectives and indicators to assess how the City was doing with respect to that Vision;
- Developing research and forecasting tools to relate planning to health outcomes;
- Developing a menu of urban policy strategies to advance those objectives; and,
- Integrating all of the above products into the Healthy Development Measurement Tool (HDMT), an evidence-based support tool for healthy planning and policy-making.

---

<sup>112</sup> This section was adapted from <http://www.dph.sf.ca.us/phes/ENCHIA.htm>.

ENCHIA has also resulted in a number of process outcomes. These include achieving an increased understanding of the human health impacts of development; the use of public health rhetoric and evidence in public policy dialogues and debates; new working relationships among Council members with complementary interests; and, a broadening of the horizons of a government agency.

The Healthy Development Measurement Tool represents the most significant product of this process. Participants in ENCHIA envision that the Tool might ultimately be used in a comprehensive way by many City agencies in comprehensive planning, in plan and project review, and in agency specific planning and budgeting. The SF Department of Public Health is committed to developing and maintaining the Tool, supporting pilot applications in San Francisco, and monitoring the progress of community health indicators.

This HIA reflects the first attempt at a comprehensive health impact assessment of land use planning in the United States.

**Start Date:** November 2004

**Budget & Staffing:** ENCHIA was convened and facilitated by the Program on Health, Equity, and Sustainability at the San Francisco Department of Public Health (SFDPH) and guided by a multi-stakeholder Community Council of over 20 diverse organizations whose interests were affected by development. Funding for ENCHIA was provided by SFDPH. The San Francisco Health Plan served as the ENCHIA fiscal sponsor. SFDPH provided all the staff for the project, including a full-time project coordinator, part-time project director, and a number of full- and part-time research and policy associates. Staffing varied at different stages of the project. During the height of the policy generation and evaluation stage, SFDPH had four full-time and two half-time staff members and interns working on the project.

**Points of Contact:** Lili Farhang  
ENCHIA Project Coordinator  
[lili.farhang@sfdph.org](mailto:lili.farhang@sfdph.org)

**References:** Eastern Neighborhoods Community Health Impact Assessment (ENCHIA)  
<http://www.dph.sf.ca.us/phes/ENCHIA.htm>  
  
ENCHIA Overview  
<http://www.dph.sf.ca.us/phes/enchia/enchia.pdf>

ENCHIA Final Report

[http://www.dph.sf.ca.us/phes/enchia/2007\\_09\\_05\\_ENCHIA\\_Final\\_Report.pdf](http://www.dph.sf.ca.us/phes/enchia/2007_09_05_ENCHIA_Final_Report.pdf)

Health Development Measurement Tool

<http://www.thehdm.org/>

## 2. Public Health Master Plan<sup>113</sup>

**Location:** Seattle and King County, Washington

**Department:** The Public Health Operational Master Plan is a collaborative process with the King County Council, the King County Board of Health, and the King County Executive.

**Description:** Public Health - Seattle & King County (PHSKC) provides a wide variety of regional services that protect and promote the health of all 1.8 million citizens of King County, as well as the hundreds of thousands of workers and tourists who enter the County each day. The objective of the Public Health Operational Master Plan (PHOMP) is to develop a sustainable operational and financing model for the provision of these essential public health services. The PHOMP is made up of two phases: Phase I (The Policy Framework) and Phase II (The Operational and Funding Recommendations).

In response to results from a variety of health assessment reports of King County (see References below), PHSKC produced the Health Environment section of the PHOMP to review the health status of Seattle and King County's population, the determinants of health, selected aspects of health care, and continued threats to health.

Chronic disease (such as diabetes, heart disease, and cancer) and the associated risk factors (smoking, physical inactivity, obesity, poor diet, etc.) are the largest contributors to poor health in King County and continue to affect a growing proportion of the population. Poor indoor air quality and water quality pose additional concerns. For example, children living in high poverty areas are 3 times more likely to be hospitalized for asthma and contaminated Puget Sound waters disproportionately affect specific populations. Disproportionate exposure to environmental pollutants within the physical/chemical environment and risk factors associated with chronic disease within the built environment, coupled with a decline in access to healthcare has led to significant disparities in health status across racial/ethnic groups, income groups and geographic areas of King County.

---

<sup>113</sup> This section was adapted from <http://www.metrokc.gov/exec/publichealthmasterplan/>.

The PHOMP, Phase I, Health Environment section concludes by providing strategies for a broad policy framework for decision making about public health and the environment in King County:

- Rapid change demands innovation and flexibility. Ongoing support for public health is needed to establish and maintain the basic infrastructure as a foundation upon which innovation can flourish.
- State of the art technology should be a major tool for improvement.
- Health disparities must be eliminated; BUT there is no “magic” solution. Any serious effort to address health inequities will necessarily require a multi-faceted, multi-sector, long-term commitment. Possible strategies include community health assessments and systematic community level environmental health data collection.
- Recent past accomplishments should not be taken for granted.
- New and old infectious disease threats have emerged or re-emerged.
- The environment must be leveraged for human health. Focus on the environment should emphasize all aspects of the environment and encompass the human health implications of the social, physical and built environment. Procedures for defining and making major policy decisions (even if the decisions are perceived initially to be unrelated directly to health) should incorporate proactive precautionary measures to avoid potential health risks, and formal health impact assessments which refine policy proposals so that they foster health.
- Enhanced efforts and new approaches must address the factors that result in profound inequities in the risk of exposure to environmental pollutants for low-income, people of color, immigrant and non-English speaking communities.
- Urban and suburban sprawl have contributed to overweight/obesity and decreasing air quality.
- Intensive public education and messaging will help the public understand new concepts about the implications of the built environment for health
- Multiple sources of environmental pollutants (including the residual from methamphetamine labs) exist throughout the county. Body burdens of toxics are rising in the population.
- Poor indoor air quality, due to mold and other hazards, is a major cause of preventable chronic disease.
- Capitalize on the synergy between personal healthcare and population health services.
- Advocacy for universal access to healthcare needs reinvigoration.

- The public health workforce of the future will require new and varied skills. Reduction or elimination of health disparities calls for a diverse workforce, which better reflects the population served by King County.

**Start Date:** The King County Council initiated the Public Health Operational Master Plan in the 2005 King County Budget, through provisos requiring the Executive, Council, Board of Health and Public Health to work together to develop a sustainable operational and financing model for the County's provision of public health services. Phase I was adopted by the Metropolitan King County Council on February 26, 2007.

**Budget & Staffing:** The PHSKC hired Mine & Associates to provide independent and expert work in preparation of the Operational Master Plan.

**Points of Contact:** Toni Rezab  
Project Manager and Senior Policy Analyst  
[toni.rezab@kingcounty.gov](mailto:toni.rezab@kingcounty.gov)  
Phone: 206-296-7625

**References:** Official Site, King County Public Health Operational Master Plan  
<http://www.metrokc.gov/exec/publichealthmasterplan/>

Phase I: A Policy Framework for the Health of the Public  
<http://www.metrokc.gov/exec/publichealthmasterplan/docs/finalframework.pdf>

Phase I: Health Environment Section  
<http://www.metrokc.gov/exec/publichealthmasterplan/docs/healthenvironment.pdf>

Phase II: Operational and funding recommendations, Final Report and Recommendations  
<http://www.metrokc.gov/exec/publichealthmasterplan/docs/FinalPublicHealthOMP20070906.pdf>

King County Environmental Health Division  
[http://www.metrokc.gov/health/env\\_hlth/overview.htm](http://www.metrokc.gov/health/env_hlth/overview.htm)

King County Land Use, Transportation, Air Quality and Health Study (LUTAQH)  
[http://www.naco.org/Content/ContentGroups/Programs\\_and\\_Projects/Community\\_Development/Center\\_for\\_Sustainable\\_Communities/KingCounty\\_Designing\\_Healthy\\_Communities\\_and\\_Transportation\\_Systems.pdf](http://www.naco.org/Content/ContentGroups/Programs_and_Projects/Community_Development/Center_for_Sustainable_Communities/KingCounty_Designing_Healthy_Communities_and_Transportation_Systems.pdf)

## SUPPLEMENTAL ENVIRONMENTAL HEALTH PROGRAMS

### 1. Active Communities (Transit-Oriented Development)<sup>114</sup>

**Location:** Milpitas, California

**Description:** The Milpitas, CA Midtown Specific Plan advances a cohesive vision for the future development of this Northern California city. The plan, informed by more than 25 hours of public meetings, interviews and workshops, establishes design standards for future mixed-use and higher density transit-oriented development around light rail and future Bay Area Rapid Transit stations. A network of parks, plazas and bicycle trails are also included to help unify new neighborhoods within the site. Finally, the plan employs a Program EIR which helps to relieve additional environmental analysis by incorporating mitigation measures into the plan's policies. In this way, the program EIR can help expedite the environmental review process for individual projects and encourage private investment in the area.

**Points of**

**Contact:** James Lindsay  
City of Milpitas  
(408) 586-3274  
[www.ci.milpitas.ca.gov/midtown/default.htm](http://www.ci.milpitas.ca.gov/midtown/default.htm)

**References:** Neighborhood-scale Planning Tools to Create Active, Livable Communities  
[http://www.activelivingleadership.org/uploads/PDFs/brief\\_LGC\\_neighborhood\\_planning\\_2004.pdf](http://www.activelivingleadership.org/uploads/PDFs/brief_LGC_neighborhood_planning_2004.pdf)

### 2. Active Communities (Form-Based Codes)<sup>115</sup>

**Location:** Petaluma, California

**Description:** The City of Petaluma struggled for seven years to achieve consensus on a specific plan for a 400-acre redevelopment site adjacent to its downtown (see photos above). Despite extensive public outreach, political battles continued between residents, developers and environmentalists. The proposed zoning code was full of legalese and numbers and did not assure the stakeholders that new development would mimic the existing historic downtown. In an effort to move forward, the city hired a consultant who introduced an innovative form-based zoning code called SmartCode™. The new code focused less on separating uses and more on describing the building forms that would realize the community's vision of a pedestrian-oriented, mixed-use district. Residents have been assured by the clarity

---

<sup>114</sup> This section was adapted from <http://www.activelivingleadership.org>.

<sup>115</sup> This section was adapted from <http://www.activelivingleadership.org>.

and relative simplicity of the new code, and developers appreciate its clear rules and expedited permitting process. After only nine months of community visioning and consensus building, political adversaries agreed on the new form-based zoning code breaking the seven-year logjam. The Central Petaluma Specific Plan was adopted in June 2003, and has given a jump start to the construction of a new, mixed-use theater district.

**Points of Contact:**

George White  
Assistant Director of Planning Services  
City of Petaluma  
(707) 778-4345  
<http://cityofpetaluma.net/cdd/cpsp.html>

**References:** Neighborhood-scale Planning Tools to Create Active, Livable Communities  
[http://www.activelivingleadership.org/uploads/PDFs/brief\\_LGC\\_neighborhood\\_planning\\_2004.pdf](http://www.activelivingleadership.org/uploads/PDFs/brief_LGC_neighborhood_planning_2004.pdf)

Leadership for Healthy Communities  
<http://www.activelivingleadership.org/>

Creating a Regulatory Blueprint for Healthy Community Design  
[http://www.activelivingleadership.org/uploads/PDFs/rpt\\_ICMA-CommunityDesign\\_Aug2005.pdf](http://www.activelivingleadership.org/uploads/PDFs/rpt_ICMA-CommunityDesign_Aug2005.pdf)

Preventing Obesity in Youth through School-Based Efforts  
[http://www.activelivingleadership.org/uploads/PDFs/brief\\_NGA\\_Feb2003.pdf](http://www.activelivingleadership.org/uploads/PDFs/brief_NGA_Feb2003.pdf)

Active Education: Physical Education, Physical Activity and Academic Performance  
<http://www.activelivingleadership.org/uploads/ActiveEd.pdf>

### 3. Land Use and Health Team<sup>116</sup>

**Location:** Ingham County, Michigan

**Description:** The Land Use and Health Team is a collaborative effort in the tri-county (Ingham, Eaton and Clinton counties), mid-Michigan area that involves planners, university faculty, business and public health. The purpose of the Team is to educate and engage the community regarding impacts of the built environment on health, and facilitate improvement through refinement and promotion of a health impact assessment tool.

---

<sup>116</sup> This section was adapted from <http://www.cacvoices.org> and <http://www.ingham.org>.

**Points of Contact:**

Matt Penniman  
[penniman@gmail.com](mailto:penniman@gmail.com)

Marcus Cheatham  
[mcheatham@ingham.org](mailto:mcheatham@ingham.org)

Jeff Grabill  
[grabill@msu.edu](mailto:grabill@msu.edu)

LeRoy Harvey  
[leroy@leroyharvey.net](mailto:leroy@leroyharvey.net)

**References:** Land Use and Health Team: Capital Area, Michigan  
<http://www.cacvoices.org/healthylifestyles/environmental/LUH/LandUsehtml>  
<http://www.cacvoices.org/healthylifestyles/environmental/LUH/LUH%20Objectives>  
<http://www.cacvoices.org/healthylifestyles/environmental/PACE/pace/>

Capital Area Land Use and Health Resource Team Regional Update  
Report on the Health Status of Ingham County  
<http://www.ingham.org/HD/67619%20ICHHD%20EnviroHlth.pdf>  
<http://www.ingham.org/HD/03189-OurHealth.07.04.pdf>

#### 4. Livable Communities Program<sup>117</sup>

**Location:** Riverside County, California

**Description:** A strategic goal of the Riverside County Department of Public Health (RCDPH) is to create more livable communities. As the population of Riverside County grows and new housing developments are built, it is imperative that the quality of life be maintained and includes— environmental, economic, social safety, and health. Goals of RCDPH’s Livable Communities Program include: 1) working with developers to ensure that health and safety factors are considered (e.g., bike paths, safe walking routes, town squares, ample health education opportunities, etc.); 2) working with stakeholders to re-design existing communities to enhance health and safety factors; 3) working with other disciplines to ensure that communities are livable (e.g., EDA, Law Enforcement, Parks and Recreation, Traffic Engineers, businesses, etc.); and 4) assisting new communities to work together to create a “community” through identified activities (e.g., Neighborhood Watch, graffiti removal, market nights, block events, etc.).

---

<sup>117</sup> This section was adapted from <http://www.rivco-buildhealth.org> and <http://www.naccho.org>.

**Points of**

**Contact:** Sandy Jackson  
Public Health Program Coordinator II  
Injury Prevention Services  
(951) 358-7171  
[swales@co.riverside.ca.us](mailto:swales@co.riverside.ca.us)

**References:** Riverside County Livable Communities Project  
<http://www.rivco-buildhealth.org>

Spotlight on a Local Public Health Agency: Riverside County Department of Public Health  
[http://www.naccho.org/topics/hpdp/land\\_use\\_planning/RiversideCounty.cfm](http://www.naccho.org/topics/hpdp/land_use_planning/RiversideCounty.cfm)

## 5. Planning for Public Health<sup>118</sup>

**Location:** Denver, Colorado

**Description:** Tri-County Health Department collaborates with local governments, other agencies, developers, and the public to incorporate public health considerations into planning and development activities. We encourage the inclusion of public health policies in master plans and provide public health input on development applications. In 2003, Tri-County provided 309 land use reviews. The goal of TCHD's Land Use Program is to include environmental public health principles (water quality and conservation, wastewater, air quality, safety, physical activity, transportation, solids & hazardous wastes, etc.) routinely in local planning and development activities.

**Points of**

**Contact:** Carol Maclennan  
(303) 846-6232

**References** Tri-County Health Department (Adams, Arapahoe and Douglas Counties) Land Use and Planning Services  
<http://www.tchd.org/land.htm>

Morris, Marya, and Susan Sutherland. 2006. "Case Studies of Successful Planning and Public Health Collaboration: Delaware County, Ohio." in Integrating Planning and Public Health: Tools and Strategies to Create Healthy Places (PAS Report 539/540), edited by Marya Morris. Chicago, IL: American Planning Association.

---

<sup>118</sup> This section was adapted from <http://www.tchd.org/land.htm> and Morris, Marya and Sutherland 2006.

## 6. Healthy Eating & Active Living Partnership<sup>119</sup>

**Location:** Denver, Colorado

**Description:** Thriving Communities brings together a powerful group of partners to work on programs, policies and environmental changes that support healthy eating and active living (HEAL). Thriving Communities activities in Commerce City are growing. TCHD is partnering with organizations in Commerce City to expand cooking and nutrition classes, conduct walkability audits neighborhood-by-neighborhood, and working on safe routes to school.

### **Points of**

**Contact:** Merrick Wright  
(303) 846-6212

**References:** Tri-County Health Department (Adams, Arapahoe and Douglas Counties)  
Thriving Communities / LiveWell Commerce City  
<http://www.tchd.org/thriving.htm>

Tri-County Health Department (Adams, Arapahoe and Douglas Counties)  
Thriving Communities 2006 Action Plan  
[http://www.tchd.org/pdfs/thriving\\_action\\_plan.pdf](http://www.tchd.org/pdfs/thriving_action_plan.pdf)

## **FOOD SYSTEMS & THE ENVIRONMENT**

The **food system** (the production, transformation, distribution, access, and consumption of food and the associated waste) greatly impacts the overall public, environmental, and economic health of a community.<sup>120,121</sup>

The presence or absence of local and regional farmland<sup>122</sup>, urban agriculture<sup>123</sup>, farm to institution programs<sup>124</sup>, community food assessment activities<sup>125</sup>, composting facilities, farmers' markets, and healthy food stores greatly influences the availability of nutritious, affordable foods in a community<sup>126</sup> as well as the environmental, and economic health of a community.<sup>127,128,129</sup>

---

<sup>119</sup> This section was adapted from <http://www.tchd.org/thriving.htm>.

<sup>120</sup> Pothukuchi K, Kaufman J. The food system: A stranger to the planning field. *Journal of the American Planning Association* 2000;66(2):113-24.

<sup>121</sup> Feldstein LM. *General Plans and Zoning: A Toolkit on Land Use and Health*. San Francisco: The Public Health Law Program; 2006.

<sup>122</sup> Farmland on the periphery of urban areas.

<sup>123</sup> Community gardens, rooftop gardens, and urban farms that grow and produce a variety of fruit and vegetables for personal consumption or local sale.

<sup>124</sup> Schools, hospitals or public agencies that sell or use locally produced foods in their food related activities (e.g. farm to school).

<sup>125</sup> Community-wide analysis of factors that influence access to healthy foods such as the type of food stores, quantity and quality of healthy food offerings, proximity of healthy food retail to residents, socio-demographic and geographic composition of neighborhoods, land use and transportation policies.

<sup>126</sup> McCann B. *Community Design for Healthy Eating: How land use and transportation solutions can help*. Washington, DC: McCann Consulting and the Robert Wood Johnson Foundation; 2006 July.

In terms of environmental and economic health, the conventional U.S. food system is highly dependent on energy, specifically oil, natural gas and electricity for the processing, packaging and distribution of food. Conventional, industrial food production in particular leads to natural resource depletion and degradation by indirectly contributing to air pollution, waste generation, water contamination, biodiversity loss, and excessive energy consumption. Due to a dependence on food from increasingly distant sources, many communities forgo economic development possibilities of purchasing produce directly from local and regional farmers. Billions of dollars in economic activity is lost to other regions of the country or even to other countries.<sup>130-131</sup>

In terms of public health, the majority of Americans (approximately three fourths of children and adults) do not meet the Healthy People 2010 objective for fruit and vegetable consumption (eating at least 2 daily fruit servings and 3 daily vegetable servings). However, a diet rich in fruits and vegetables is associated with positive growth and development,<sup>132</sup> weight management,<sup>133</sup> and a decreased risk for chronic disease.<sup>134</sup> Yet, many children and adults, particularly in low-income households, do not have access to fresh, affordable produce.<sup>135</sup> In a recent report published by the Centers for Disease Control and Prevention, the authors called for the identification of barriers to eating more fruits and vegetables and the implementation of major environmental changes to reverse the trend.<sup>136</sup> Eating behavior in both children and adults, as evidenced by past research, is influenced by a wide variety of factors, including but not limited to taste, nutrition, weight control, cost, convenience, and availability.<sup>137,138</sup> Moreover, while individual differences largely affect eating behavior, the built environment greatly affects the cost, locality, quality and availability of foods, all of which significantly influence purchasing decisions.<sup>139</sup>

---

<sup>127</sup> Pothukuchi K, Kaufman J. The food system: A stranger to the planning field. *Journal of the American Planning Association* 2000;66(2):113-24.

<sup>128</sup> Policy Guide on Community and Regional Food Planning. In: APA Policy Guide: American Planning Association; 2007:1-20.

<sup>129</sup> Hammer J. Community Food Systems and Planning Curricula. *Journal of Planning Education and Research* 2004;23(4):424-34.

<sup>130</sup> Policy Guide on Community and Regional Food Planning. In: APA Policy Guide: American Planning Association; 2007:1-20.

<sup>131</sup> Harmon AH, Gerald BL. Position of the American Dietetic Association: Food and Nutrition Professionals Can Implement Practices to Conserve Natural Resources and Support Ecological Sustainability. *Journal of the American Dietetic Association* 2007;107:1033-43.

<sup>132</sup> Gustafson A, Cavallo D, Paxton A. Linking Homegrown and Locally Produced Fruits and Vegetables to Improving Access and Intake in Communities through Policy and Environmental Change. *Journal of the American Dietetic Association* 2007;107(4):584-5.

<sup>133</sup> Rolls BJ, Ello-Martin JA, Tohill BC. What can intervention studies tell us about the relationship between fruit and vegetable consumption and weight management? *Nutrition Review* 2004;62(1):1-17.

<sup>134</sup> US Department of Health and Human Services UDoA. Dietary guidelines for Americans, 2005. In. Washington DC: US Government Printing Office; 2005.

<sup>135</sup> Sallis JF, Glanz K. The Role of the Built Environments in Physical Activity, Eating, and Obesity in Childhood. *The Future of Children* 2006;16(1):89-108.

<sup>136</sup> Short A, Guthman J, Raskin S. Food Deserts, Oases, or Mirages?: Small Markets and Community Food Security in the San Francisco Bay Area. *Journal of Planning Education and Research* 2007;26(3):352-64.

<sup>137</sup> Block, J. P., Scribner, R. A., & DeSalvo, K. B. (2004). Fast food, race/ethnicity, and income. *American Journal of Preventive Medicine*, 27(3), 211-217.

<sup>138</sup> Morland, K., Wing, S., & Roux, A. D. (2002). The contextual effect of the local food environment on resident's diets: the atherosclerosis risk in communities study. *American Journal of Public Health*, 92(11), 1761-1767.

<sup>139</sup> Hill, J. O., Wyatt, H. R., & Peters, J. C. (2004). Modifying the Environment to Reverse Obesity. *Essays on the Future of Environmental Health Research*, 108-115.

Community food systems planning—the collaborative planning process of developing and implementing land use, economic development, and environmental programs/policies to support community food systems, ecologically sustainable local agriculture, *and* improved access to healthy, affordable foods—provides local governments, planners, public health and nutrition professionals, and community food advocates with the ideal platform to address an important, but often overlooked, facet of public, environmental and economic health: the community food system or environment.<sup>140</sup>

Coordination between key community leaders is essential to the creation and implementation of effective policies that improve the community food environment and protect the natural and physical environments.<sup>141</sup> Public health, nutrition, and food professionals typically work together to improve the specific food environments, such as the school and day-care food environments, however few local governments and planners work collaboratively with these key community members to improve the larger community food environments.<sup>142</sup>

## 1. Food Policy Council<sup>143</sup>

**Location:** Portland, Oregon

**Department:** City of Portland, Office of Sustainable Development  
Multnomah County

**Description:** The Portland Multnomah Food Policy Council is a citizen-based advisory council to the City of Portland and Multnomah County. The Council brings citizens and professionals together from the region to address issues regarding food access, land use planning issues, local food purchasing plans and many other policy initiatives in the current regional food system.

The vision of the Council is to ensure all City of Portland and Multnomah County residents have access to a wide variety of nutritious, affordable food, grown locally and sustainably.

The mission of the Council is to bring together a diverse array of stakeholders to integrate the aspects of the food system (production, distribution, access, consumption, processing and recycling) in order to enhance the environmental, economic, social and nutritional health of the City of Portland and Multnomah County.

The goals and objectives of the Council include:

- 1) Educate and compile information about the local food system.
- 2) Develop strategies to enhance the environmental, economic, social and

---

<sup>140</sup> Pothukuchi K, Kaufman J. The food system: A stranger to the planning field. *Journal of the American Planning Association* 2000;66(2):113-24.

<sup>141</sup> Innes JE, Booher DE. Consensus Building and Complex Adaptive Systems: A Framework for Evaluating Collaborative Planning. *Journal of the American Planning Association* 1999;65(4):412-23.

<sup>142</sup> Feldstein LM. *General Plans and Zoning: A Toolkit on Land Use and Health*. San Francisco: The Public Health Law Program; 2006.

<sup>143</sup> This section was adapted from <https://www.sustainableportland.org/osd/index.cfm?c=eccja>.

- nutritional health of the City of Portland and Multnomah County.
- 3) Affect and develop food policy.
  - 4) Advocate and advise on policy implementation.

The Council is guided by six principles, which are a valuable articulation of how food contributes to the quality of life in a community:

- 1) Every City and County resident has the right to an adequate supply of nutritious, affordable and culturally appropriate food (food security).
- 2) Food security contributes to the health and well being of residents while reducing the need for medical care and social services.
- 3) Food and agriculture are central to the economy of the City and County, and a strong commitment should be made to the protection, growth and development of these sectors.
- 4) A strong regional system of food production, distribution, access and reuse that protects our natural resources contributes significantly to the environmental well-being of this region
- 5) A healthy regional food system further supports the sustainability goals of the City and County, creating economic, social and environmental benefits for this and future generations.
- 6) Food brings people together in celebrations of community and diversity and is an important part of the City and County's culture.

In order to play its role in creating a healthy regional food system, the City and County will:

- 1) Support an economically viable and environmentally and socially sustainable local food system.
- 2) Enhance the viability of regional farms by ensuring the stability of the agricultural land base and infrastructure and strengthening economic and social linkages between urban consumers and rural producers.
- 3) Ensure ready access to quality grocery stores, food service operations and other food delivery systems.
- 4) Promote the availability of a variety of foods at a reasonable cost.
- 5) Promote and maintain legitimate confidence in the quality and safety of foods available.
- 6) Promote easy access to understandable and accurate information about food and nutrition.

The Council has undertaken a variety of projects, including a series of workshops on direct farm marketing for immigrant farmers to improve their access to land and participation in local farmers' markets. Another project, based on the November 2004 Resolution 36272, is the Diggable City study, which used urban planning students from Portland State University to inventory all city-owned land with potential for use in community gardens and other urban agriculture initiatives. In another

example, the county corrections department worked with its food service vendor to purchase locally grown food, showing how institutional purchasing can create markets for local farmers.

Priorities for 2008 are expected to include:

- Local land use policies and their impact on the food system;
- Methods for building regional demand for locally produced foods and food products;
- City and County food purchasing policies and practices;
- The availability of healthy, affordable food to all residents; and
- The capacity of local communities to engage in healthy food practices.

**Start Date:** 2002

**Budget & Staffing:**

The Council currently consists of 16 members who are appointed by Commissioners Dan Saltzman and Jeff Cogen from the City and County respectively. The Council is jointly staffed by the City and County and charged with providing input and advice on City and County food-related issues.

The position of Council member requires expertise in one or more local food-related issues such as local farming; food security; nutrition; food business and industrial practices; community food education; land use; and institutional food purchasing and practices. Equally important is the Council members' ability to work together to create policy advice that takes into consideration the implications of current and proposed policies on the entire local food system. The criteria that the Commissioners use for selecting members to appoint include:

- Ability to commit to a two-year long term requiring regular attendance and participation in monthly meetings, active participation on at least one subcommittee of the Council and occasional public appearances on the Council's behalf.
- Ability to bring community and specific food system relationships and resources to the effort.
- Ability to represent diverse sectors of the local food system.
- Ability to weigh the systemic implications of policy development regarding food issues (i.e. not narrowly focused on advancing a single issue or agenda).

Lives or works predominantly within Multnomah County.

**Points of Contact:**

Portland Multnomah Food Policy Council  
721 NW 9th Ave #350

Portland, OR 97209  
503-823-7222  
[www.sustainableportland.org](http://www.sustainableportland.org)

Matt Emlen  
Coordinator, Portland-Multnomah Food Policy Council  
City of Portland, Office of Sustainable Development  
(503) 823.7224

Steve Cohen  
Food Policy & Programs  
City of Portland, Office of Sustainability  
(503) 823-4225  
[scohen@ci.portland.or.us](mailto:scohen@ci.portland.or.us)

Kat West  
Multnomah County, Sustainability Program  
(503) 988-4092  
[kathleen.s.west@co.multnomah.or.us](mailto:kathleen.s.west@co.multnomah.or.us)

**References:** Portland Multnomah Food Policy Council  
<https://www.sustainableportland.org/osd/index.cfm?c=eccja>

Portland Multnomah County Food Policy Council 2004 Highlights  
[http://www.co.multnomah.or.us/health/documents/food\\_policy\\_2004.pdf](http://www.co.multnomah.or.us/health/documents/food_policy_2004.pdf)

2006 Food Policy Council Highlights  
<http://www.portlandonline.com/shared/cfm/image.cfm?id=167450>

Seattle & King County Food Policy Council  
<http://king.wsu.edu/foodandfarms/foodpolicycouncil.htm>

## 2. Community Garden Program<sup>144</sup>

**Location:** Seattle, Washington

**Department:** Department of Neighborhoods

**Description:** The Department of Neighborhoods' P-Patch Program, in conjunction with the not-for-profit P-Patch Trust, provides organic community garden space for residents of 70 Seattle neighborhoods. The community based program areas of the P-Patch Program are community gardening, market gardening, youth gardening, and food policy in the City of Seattle. These programs serve all citizens of Seattle with an emphasis on low-income and immigrant populations and youth. Our community gardens offer 2500

---

<sup>144</sup> This section was adapted from <http://www.seattle.gov/neighborhoods/ppatch/> and <http://www.ppatchtrust.org/>.

plots serve more than 6000 urban gardeners on 23 acres of land. P-Patch community gardeners show their concern for the value of fresh organic vegetables by supplying 7 to 10 tons of produce to Seattle food banks each year.

P-Patch Trust is a nonprofit organization working to acquire, build, preserve and protect community gardens in Seattle's neighborhoods. Through advocacy, leadership and partnerships, the Trust expands access to community gardening across economic, racial, ethnic, ability and gender lines. We promote organic gardening and build community by breaking urban isolation by providing opportunities to for people to garden together, learn from each other, develop a sense of neighborhood and create a more livable urban environment.

The following provision was included in the 1994 update to Seattle's Comprehensive Plan, Urban Village Element, to ensure the sustainability of the P-Patch Program and community gardens: "One dedicated community garden for each 2500 households in the Village with at least one dedicated garden site. Same as for Urban Center Villages. Same as for Urban Center and Hub Villages."

**Start Date:** 1973

**Budget & Staffing:**

The budget for P-Patch program has increased substantially to over \$550,000 with 5.5 FTE staff. A 2002 resolution by the Seattle City Council states that the city will include P-Patch in the evaluation of priority use for surplus city property; encourages city department cooperation to support P-Patches; and encourages the expansion of the P-Patch program.

P-Patch Trust owns various properties that serve as community gardens. These gardens are managed with the help of the City of Seattle's P-Patch Program. The Trust combines, when possible, green-friendly funds, individual, and community support for development of P-Patch sites and community gardens.

In 1987, land for the first truly permanent community garden was deeded to the P-Patch Advisory Council to be held for permanent preservation as a community garden. Looking forward to future opportunities, in 1992 FPP founded its dedicated land acquisition fund.

In 2002, the Trust purchased its fifth permanent community gardening site. The Land Stewardship Committee was formed in 1991 which worked to gain public open space funding for eight sites for preservation as P-Patches.

All gardens are maintained by community members.

**Alexandria**

**Match:**

Chinquapin Gardens is a community garden located in Chinquapin Park, just off King Street near TC Williams High School, on Chinquapin Drive. Gardeners grow a wide array of fruits, vegetables and flowers. Popular crops include tomatoes, basil, squash, sunflowers, raspberries, asparagus, onions and collard greens. Each year, the gardeners come together for an annual picnic to celebrate their harvest.

The gardens are run by the City of Alexandria and are available for rent to city and area residents for a fee. Each plot is about 15x20 feet wide, and there are more than 100 plots. Rentals are available on an annual basis. A volunteer group of gardeners helps the city administer the gardens through the Chinquapin Gardens Advisory Board.

Contact: John Walsh of the City of Alexandria Department of Recreation, Parks and Cultural Activities, (703) 838-4343, ext.436,  
<http://chinquapingardens.org/>.

**Points of**

**Contact:**

P-Patch Program  
700 5th Avenue, Suite 1700  
PO Box 94649  
Seattle, WA 98124-4649  
(206) 684-0264, fax 233-5142  
[p-patch.don@seattle.gov](mailto:p-patch.don@seattle.gov)

Ray Schutte, President  
P-Patch Trust  
PO Box 19748, Seattle, WA 98109  
Voice mail, 425-329-1601  
[ray.s@ppatchtrust.org](mailto:ray.s@ppatchtrust.org)

City of Seattle Department of Neighborhoods  
700 5th Avenue, Suite 1700  
PO Box 94649  
Seattle, WA 98124-4649  
(206) 684-0464

**References:**

P-Patch Community Gardens  
<http://www.seattle.gov/neighborhoods/ppatch/>

Planning for Gardens in Seattle, Land Use Case Studies

[http://www.worldhungeryear.org/fslc/faqs2/ria\\_809.asp?section=18&click=3#4](http://www.worldhungeryear.org/fslc/faqs2/ria_809.asp?section=18&click=3#4)

P-Patch Trust  
<http://www.ppatchtrust.org/>

Seattle & King County Food Policy Council  
<http://king.wsu.edu/foodandfarms/foodpolicycouncil.htm>

Seattle's Comprehensive Plan, Toward a Sustainable Seattle  
<http://www.seattle.gov/dpd/planning/comprehensive/overview/>  
[http://www.seattle.gov/DPD/Planning/Seattle\\_s\\_Comprehensive\\_Plan/ComprehensivePlan/default.asp](http://www.seattle.gov/DPD/Planning/Seattle_s_Comprehensive_Plan/ComprehensivePlan/default.asp)

### 3. Food Waste Recycling & Composting Program<sup>145</sup>

**Location:** King County, Washington

**Department:** Solid Waste Division

**Description:** In King County, more than 35 percent of the waste collected from single-family residences is composed of food scraps and soiled paper, which equates to over 256,000 tons of food waste and soiled paper, per year, that could be recycled to make compost.

King County provides on-site food waste composting services to businesses and schools and curbside collection food waste recycling services to residences. Food waste can be combined with yard waste and collected at the resident's curb and is then taken to Cedar Grove Composting for recycling into compost.

In the on-site food waste composting program for businesses and schools pilot program, King County partnered with 14 businesses and schools to help these institutions manage their food waste more economically and possibly save on disposal costs. This program provided technical assistance and paid for a significant portion of the costs to set up on-site composting at the businesses and schools.

In return for this assistance the participating organizations were required to provide data to King County on the amount of food waste they are composting in the system, how much finished compost they are getting out of the system and any feedback they had on the functionality of the system for a period of three years. The results of the pilot program are available at <http://www.metrokc.gov/dnrp/swd/foodwaste/onsite/projects.asp>.

---

<sup>145</sup> This section was adapted from <http://www.metrokc.gov>.

**Start Date:** In order to assess first-hand the benefits and draw-backs of on-site in-vessel composting King County launched a pilot program in 2003 to place in-vessel systems with partnering businesses, organizations, and schools who maintain the systems and provide data and feedback on them to the county.

**Budget & Staffing:** In addition to program funds, the King County Solid Waste Division (SWD) received a grant from the Washington State Department of Ecology in support of this program.

**Points of Contact:** Kinley Deller, Project Manager  
On-Site Food Waste Composting  
King County Solid Waste Division  
Telephone: 206-296-4434 | Fax: 206-296-4475

Josh Marx, Project Manager  
Residential & Commercial Food Waste Collection Programs  
King County Solid Waste Division  
Telephone: 206-296-4429 | Fax: 206-296-4475

**References:** Yard and Food Waste Recycling with Curbside Collection  
<http://www.metrokc.gov/dnrp/swd/foodwaste/residential/index.asp>

On-Site Food Waste Composting  
<http://www.metrokc.gov/dnrp/swd/foodwaste/onsite/index.asp>

King County On-Site Food Waste Composting Pilot Program  
<http://www.metrokc.gov/dnrp/swd/foodwaste/onsite/program.asp>

#### 4. Food Systems Planning<sup>146</sup>

**Location:** Madison, Wisconsin

**Department:** Department of Planning & Development

**Description:** Madison, Wisconsin has taken steps to ensure the viability of local and regional agriculture, community gardens, the local economy, and local food retail and to create and support a healthy, sustainable city.

The Comprehensive Plan calls for the City "to maintain existing agricultural operations in the City and encourage new, smaller farming operations such as Community Supported Agriculture Farms". The Plan

---

<sup>146</sup> This section was adapted from <http://www.worldhungeryear.org> and <http://www.ci.madison.wi.us/planning/comp/plan.html>.

also has the City identify areas on the periphery suitable for long-term preservation for diverse agricultural enterprises and open space.

Besides addressing agricultural land issues, the Comprehensive Plan contains a variety of food system planning measures related to food retail, community gardening, farmers' markets, small-scale farming, and food policy councils.

The plan details its support for community gardens in a number of ways. The City will "protect existing community gardens in the City and establish additional areas for new community gardens." The Plan also states that it will consider using City surplus property and parkland to expand community gardening opportunities, establish permanent community gardens on City-owned land, extend leases on City-owned property to five years, and "strive to create one community garden site for every 2,000 households in the City."

The Plan identifies as a permanent land use Troy Gardens, 26 acres of open space including a large community garden, a kids' garden, handicapped accessible gardens, an organic urban farm, and edible landscaping.

Madison planners also seek to improve the connections between the surrounding rural economy and urban food processors and consumers. The Plan states that the City will coordinate with Dane County "to educate farmers with operations in the City about incentive programs that will help them continue farming or to sell their land to farmers with interest in smaller-scale agricultural operations."

It also calls for the City of Madison to promote the sale of food grown in Dane County, and to support the County's efforts to promote and develop direct marketing alternatives for agricultural products.

The Plan supports local food retail in a number of ways, including:

- building on existing initiatives, such as local farmers' markets and the Central Agricultural Food Facility, to strengthen the capacity and ensure the safety of the regional food network;
- Supporting the County effort to maintain areas for food production that serve local markets, such as community supported agriculture (CSA),
- Enhancing neighborhood commerce and retail capacity, (especially in older neighborhoods);
- Using zoning and low interest loans, grants, and land acquisition to maintain a small business presence and viability in high priority areas.

The Plan also supports Dane County's efforts to establish and maintain a Food Council to coordinate issues and policies relating to locally grown foods.

**Start Date:** Fall 2002

**Budget & Staffing:**

In large part, the Comprehensive Plan includes extensive food systems planning because of an enlightened mayor and planning director, as well as a citizenry that has valued locally grown food, farmers' markets, community gardens, and local economic development for decades.

Faculty and students at the University of Wisconsin, one of the nation's leading sustainable agriculture research centers, have also been a key source of institutional support for these initiatives over the years through research, advocacy, and community-based programs.

**Points of Contact:**

Mark Olinger  
Director, City Department of Planning & Community & Economic  
Madison Municipal Building, Suite LL100  
215 Martin Luther King, Jr. Boulevard  
P.O. Box 2985  
Madison, Wisconsin 53701-2985  
FAX 608 266-8739  
PH 608 266-4635  
[molinger@cityofmadison.com](mailto:molinger@cityofmadison.com)

Martin Bailkey, MLA, PhD  
Vice Chair, Dane County Food Council  
Food Systems Planning Consultant  
2554 Kendall Avenue, #4  
Madison, WI 53705

**References:** Land Use Planning, Case Studies, Madison, Wisconsin  
[http://www.worldhungeryear.org/fslc/faqs2/ria\\_809.asp?section=18&click=3#7](http://www.worldhungeryear.org/fslc/faqs2/ria_809.asp?section=18&click=3#7)

City of Madison, Wisconsin Comprehensive Plan  
<http://www.ci.madison.wi.us/planning/comp/plan.html>

## 5. Community Food Assessment<sup>147</sup>

**Location:** East Austin, Texas

---

<sup>147</sup> This section was adapted from <http://www.foodsecurity.org> and <http://www.worldhungeryear.org>.

**Department:** Non-profit organization (Sustainable Food Center)

**Description:** East Austin is an inner-city community of about 24,000 people, primarily Hispanic and African-American. The area covers about six square miles, and encompasses strong neighborhoods and well-established minority-owned businesses. However, poverty and diet-related diseases are widespread.

In 1994, the Sustainable Food Center (SFC) initiated a study of food access in East Austin, with the goals of raising awareness and forming a food policy council to help address food access issues.

Extensive community input was gathered through interviews with over 200 residents. The SFC staff were both bilingual and lived in the neighborhood, and they made it a high priority to gather information in ways that would build trust and yield meaningful responses. They conducted extensive community outreach designed to engage residents in settings in which the residents felt comfortable. The staff worked through trusted community leaders who would introduce them and encourage community members to talk to them. (Of all the people they asked to help in this way, everyone agreed.) Outreach was conducted at churches, health clinics, elementary schools, public housing, neighborhood associations, grocery stores, farmers' markets, restaurants, bus stops, and by going door to door.

In these interviews, SFC staff focused on engaging community members in a conversation to identify their concerns about the local food system, and recorded notes afterward. SFC staff felt that these informal conversations conducted by local residents were more effective at soliciting honest responses than a survey administered by an outsider would have been.

In addition to these interviews, the project also analyzed census data and conducted detailed surveys at neighborhood grocery and convenience stores. The researchers compared selection and prices in East Austin with stores outside the neighborhood. Like similar studies in other cities, these surveys demonstrated that low-income East Austin residents generally paid higher prices and had a narrower selection of groceries available than people in other parts of the city.

The Austin study was conducted with modest resources by people who had a solid base in the community, and using methods that were sensitive to the community context. They successfully built on these strengths to create an accurate and compelling picture of food access that generated impressive outcomes.

The assessment results were published in a 1995 report titled Access Denied: An Analysis of Problems Facing East Austin Residents in Their Attempts to Obtain Affordable, Nutritious Food. The report proposed that a food policy council be established to address these problems, and recommended practical solutions for improving food access in East Austin. About 2,000 copies were distributed.

Other outcomes include:

- A new bus route that provided transportation from the Eastside to the two biggest supermarkets
- Legislation that allows state land to be used free of charge for community gardens or farmers' markets
- Complete renovation of a grocery store in the neighborhood.
- Increased awareness about food access
- Establishment of a food policy council with in-kind support from the city and county

**Start Date:** 1994

**Budget & Staffing:**

SFC is a non-profit organization that works to develop sustainable food systems through local, state, and national initiatives. The study was planned and implemented over a period of eight months by SFC's then-Director, Kate Fitzgerald, and VISTA volunteer Jon Schragg with the support of the SFC board of directors. The Eastside Advisory Board, a group of community stakeholders, also provided project guidance.

Key project expenses included staff time and printing for the report. SFC paid for the study through their core funds, plus federal government support for the VISTA volunteer's salary. SFC requested donations to help cover printing costs for the report.

**Points of Contact:**

Sustainable Food Center  
PO Box 13323  
Austin, TX 78711  
Phone: 512-236-0074  
Fax: 512-236-0098  
[sustainablefoodcenter.org](http://sustainablefoodcenter.org)

**References:** What's Cooking in Your Food System: A Guide to Community Food Assessment, <http://www.foodsecurity.org/CFAguide-whatscookin.pdf>

Community Food Assessment Program Profiles / Case Studies  
[http://www.worldhungeryear.org/fslc/faqs/ria\\_083.asp?section=7&click=3](http://www.worldhungeryear.org/fslc/faqs/ria_083.asp?section=7&click=3)

## **HEALTH PROMOTION**

Environmental advocates and practitioners have much to learn from the health promotion. Various health promotion strategies for facilitating behavior changes could be easily adapted to modify the consumer and lifestyle activities that are necessary to achieve ecological sustainability.

**Health promotion**, or the science and art of helping people change their lifestyle to move toward a state of optimal health, is an important public health strategy. Public health interventions, such as health education and worksite wellness programs, facilitate behavioral and environmental changes that can reduce the risk for obesity and associated chronic disease. Obesity and chronic diseases (such as heart disease, type 2 diabetes and asthma) pose a serious burden on the physical and financial health of individuals, businesses and communities. Health care professionals estimate that obesity in the United States costs over \$117 billion annually. Despite these figures and evidence which indicates obesity and chronic diseases may be prevented, little is spent on disease prevention efforts.

Considering these alarming costs, public and private organizations are becoming more aware that overweight and obesity, lack of physical activity, poor eating habits and tobacco use are having a negative affect not only on the health and productivity of their employees, but also the business as a whole. Therefore, many organizations are developing a variety of worksite health promotion, intervention and disease prevention programs and policies. Recent research indicates that the benefit-to-cost ratios for such programs ranges from \$1.49 to \$4.91 in benefits for every dollar spent on the program. These programs are proving to improve employee health and increase employee productivity.

Employers are beginning to see the benefit of offering on-site recreational/exercise facilities (including showers and changing facilities); physical activity time during work hours, incentives for engaging in physical activity; company sponsored fitness programs, free, discounted or employer subsidized fitness club memberships; healthier food options; alternative transportation incentives; preventative health care services; nutrition education and weight management programs; and much more. Through a combination of health promotion and supportive work environment, employers can help individuals adopt healthier lifestyle behaviors.<sup>148</sup>

### **1. Employee Wellness<sup>149</sup>**

**Location:** Arlington County, Virginia

**Department:** Arlington County

**Description:** Health Smart

---

<sup>148</sup> Prevention Makes Common “Cents”, U.S. Department of Health & Human Services, September 2003, <http://aspe.hhs.gov/health/prevention/prevention.pdf>

<sup>149</sup> This section was adapted from <http://www.arlingtonva.us/departments/HumanResources>.

Health Smart, the Arlington County Employee Wellness program, is managed with a mind-body-spirit philosophy. The program focuses on physical, mental and spiritual health. Events and classes are offered across the spectrum of employee health and wellness issues. Classroom topics and events include walking meetings, seated massage sessions, Weight Watchers, special employee exercise opportunities, guidelines for health food at meetings and conferences.

#### Local Motion

Local Motion is a wellness initiative offering all employees the chance to get moving, get healthy and win great prizes along the way, including a four-day, three-night vacation to one of 75 resorts throughout the U.S. Employees form teams of 5-7 individuals and commit to active participation through a \$40 investment fee (which can be paid via payroll deduction). Participants are given a welcome kit stuffed with gifts to help them achieve their personal fitness goals, including a pedometer, water bottle, lanyard, weekly incentive gifts, e-mail newsletters, advice from a registered nurse and fitness experts, etc. Program officials track participant progress through biometric measurements before and after the program including height & weight, hydration, blood pressure, pulse and cardio/fitness measures.

During the program, participants progress through a self-paced health & fitness program, tracking their weekly physical activity and water intake, supported by health experts, coaches and teammates. At the end, teams and individuals achieving the greatest results will win prizes, but all participants will benefit from feeling and looking better.

#### Bike to Work

The County encourages employees to practice healthy lifestyles and to assist in improving the local community's environment through reduction of traffic congestion and pollution. Employees who use a non-motorized means of transportation (walk or bicycle) for their entire work commute more than 50% of their workdays are eligible for a taxable incentive. The net amount of this subsidy is \$35 per month from the County, issued semi-annually (April and October) to the participating full-time employees. Employees working less than 30 hours a week will receive \$17.50 per month.

#### Mass Transit Subsidy

The County will subsidize up to 80% of employee's commuting costs, up to \$75 per paycheck, for a maximum benefit of \$60 per paycheck. The subsidy may be used for Metrorail, Metrobus, and other local transit such as vanpools, MARC, VRE, OmniRide, Ride-On, and the DASH bus. The benefit is available on a SmarTrip Card (monthly) or Metrocheks or Metrobus passes (bi-weekly).

### Child Care

Arlington is dedicated to providing a family-friendly environment. Flexible hours, telecommuting and 4-day work weeks are possible in many positions. The Arlington Children's Center is one of three available to County employees at a discount.

### Fitness and Sports Centers

Arlington employees are eligible to use County sports and fitness centers, and swimming pools at 50 percent of the citizen rate. Employees and members of their household are eligible to participate in the programs and services offered by the Department of Parks, Recreation and Community Resources at the citizen rate, including class programs and summer camps.

**Start Date:** 1994

**Budget & Staffing:** N/A

**Points of Contact:** Brenda Growden  
Human Resources Department  
2100 Clarendon Boulevard, Suite #511  
Arlington, VA 22201  
703-228-3500

**References:** Arlington County, Human Resources  
<http://www.arlingtonva.us/departments/HumanResources/HumanResourcesEmployeeProfiles.aspx>

## **INDOOR AIR QUALITY**

**Indoor air quality** is a significant public health concern. Both adults and children spend the majority of their day indoors, either in the home, the workplace or school. According to the Environmental Protection Agency, about 20 million Americans, of which 6.3 million are children, have asthma. Hospitalizations due to asthma cost almost \$2 billion annually and cause over 14 million missed school days each year. In the 1990s, 1 in 5 schools reported unsatisfactory indoor air quality and 1 in 4 schools reported unsatisfactory ventilation. Uncontrolled mold growth and exposure to pesticides can cause a variety of upper respiratory problems, especially in children. Local governments, businesses and schools can engage in strategies to improve the indoor air quality at home, in the workplace or at school through integrated pest management programs and other indoor air quality assessment tools.<sup>150</sup>

### **1. Indoor Air Quality in Residences<sup>151</sup>**

**Location:** Cuyahoga County, Ohio

**Department:** Cuyahoga County Board of Health

**Description:** The Cuyahoga County Urban Mold & Moisture Program (UMMP) explored the relationship between mold, moisture, asthma triggers and the respiratory health of children living in inner city neighborhoods throughout Greater Cleveland. Simultaneous clinical /environmental assessments and sampling occurred over a twelve month period. A total of 104 homes received environmental interventions focused on the reduction of water infiltration, removal of water damaged building materials, HVAC alterations, lead hazard control, and environmental cleaning.

**Start Date:** 2003

**Budget &  
Staffing:**

Case Western Reserve University, Department of Pediatrics, Rainbow Babies and Children's Hospital; Cuyahoga County Board of Health; Cuyahoga County Department of Development; Cleveland Housing Network; Environmental Health Watch

U.S. Department of Housing & Urban Development (HUD) Healthy Homes Initiative (HHI) Grant to Reduce Health and Safety Risks to Children in Low-Income Housing  
2003 Healthy Homes Demonstration & Education Grant (\$950,000)

**Points of**

**Contact:** Carolyn M. Kerckmar

---

<sup>150</sup> Indoor Air Quality, U.S. Environmental Protection Agency, <http://www.epa.gov/iaq/>

<sup>151</sup> This section was adapted from <http://www.ehw.org> and <http://www.ehponline.org>.

[carolyn.kercsmar@cchmc.org](mailto:carolyn.kercsmar@cchmc.org)

Dorr G. Dearborn

[dx9@case.edu](mailto:dx9@case.edu)

Case Western Reserve University

Department of Pediatrics

Rainbow Babies and Children's Hospital

Cleveland, Ohio

John Sobolewski

Supervisor of Healthy Homes Programs

Cuyahoga County Board of Health

Parma, Ohio

216-201-2001 x1515

Stuart J. Greenberg

Environmental Health Watch

Cleveland, Ohio

216-961-4646

Stephen J. Vesper

U.S. Environmental Protection Agency

National Environmental Research Laboratory

Cincinnati, Ohio

513-569-7367

[Vesper.Stephen@EPA.gov](mailto:Vesper.Stephen@EPA.gov)

**References:** Healthy House, Cuyahoga County

[http://www.ehw.org/Healthy\\_House/HH\\_UMMPSummary.htm](http://www.ehw.org/Healthy_House/HH_UMMPSummary.htm)

Reduction in Asthma Morbidity in Children as a Result of Home Remediation Aimed at Moisture Sources

<http://www.ehponline.org/members/2006/8742/8742.pdf>

## 2. Indoor Air Quality in Residences<sup>152</sup>

**Location:** Kansas City, Missouri

**Department:** Healthy Homes Network (HHN) of Greater Kansas City  
Children's Mercy Hospital and Clinics (CMH) Environmental Health Program in Kansas City

**Description:** The purpose of the Healthy House Project (HHP) in Kansas City, Missouri is to assess and examine houses occupied by children with chronic respiratory illness such as asthma and see if there is a connection between the home they live in and any symptoms they are exhibiting as well as to

---

<sup>152</sup> This section was adapted from [http://www.patiair.com/News/TrappedAir/III.8\\_oct2004/III.8\\_oct2004.html](http://www.patiair.com/News/TrappedAir/III.8_oct2004/III.8_oct2004.html).

determine what kinds of VOCs are most prevalent in Kansas City homes and whether any of these compounds are those that have been linked to specific health problems.

The first step of the project involved taking a comprehensive "snapshot" of indoor environments in Kansas City, Missouri homes, and then offering participants resources to make improvements.

HHP has assessed 35 homes to date and has encountered several surprises. All HHP houses assessed to date have had some sort of moisture-related problems caused by leaks in the foundation, plumbing supply, and/or plumbing waste drains. Among the surprising results:

- Twenty-five percent of homes assessed had active low-level gas leaks, and of these, three were related to a poorly operating stove.
- We found leaks in main gas lines, from un-tightened fittings on existing lines, and from old capped lines that had been out of service for years.
- Over half the houses tested so far have had what would be considered high indoor VOC levels.
- Nearly half of the houses surveyed had exhaust ventilation concerns. From detached vent pipes to non-existent ones, to exhaust pipes with long horizontal runs, it has been surprising how many were in poor condition.
- Thirty-three percent had visible mold problems. In most instances mold was found in basements with active moisture intrusion problems.
- Fifty percent of houses surveyed so far had high concentrations of fine and ultra-fine particles. Sources varied from the burning candles or incense and heated air fresheners, to tobacco smoke and heavy chemical application. In some cases, the particle count indoor was as much as ten times the outdoor concentration.
- All houses have had functioning furnaces, but only half had the right filter installed properly.
- Twenty-five percent of houses assessed had roach infestations. Of these, three had major infestations.

**Budget & Staffing:**

Primary funding was provided through a "Healthy Homes Demonstration Grant" administered by the Department of Housing and Urban Development (HUD) and is a partnership between the Healthy Homes Network (HHN) of Greater Kansas City, and the Children's Mercy Hospital and Clinics (CMH) Environmental Health Program in Kansas City.

The Healthy House Demonstration Program is part of an initiative to develop efficient and cost-effective procedures for comprehensively

assessing home hazards. The Kansas City grant is a partnership between the Healthy Homes Network, a non-profit organization whose members represent health departments, state agencies, and community organizations in the Kansas City area.

The Healthy House Project has been fortunate to have some important partners in this effort. The grant from HUD did not provide sufficient funding for additional analyses in all the homes enrolled in the study, so the Environmental Health Program is currently seeking funds from corporate sponsors to cover the costs of the additional studies.

**Points of Contact:**

Kevin Kennedy  
Program Manager of the Environmental Health Program  
Department of Allergy, Asthma, and Immunology  
Children's Mercy Hospital and Clinics  
Kansas City, Missouri

**References:** The Healthy House Project  
[http://www.patiair.com/News/TrappedAir/III.8\\_oct2004/III.8\\_oct2004.html](http://www.patiair.com/News/TrappedAir/III.8_oct2004/III.8_oct2004.html)

### 3. Indoor Air Quality in Schools<sup>153</sup>

**Location:** Hartford, Connecticut

**Department:** Hartford Public Schools

**Description:** In 2005, Hartford Public Schools received the Environmental Protection Agency's Excellence Award for their Indoor Air Quality Tools for Schools Program.

Hartford Public Schools believes in providing students with "Safe, Clean, and Healthy Schools" throughout the District. As an urban school district, the Indoor Air Quality Tools for Schools Program mobilized staff to address indoor air issues and established procedures that led to sustained indoor air improvements. It also allowed the District to respond proactively to Connecticut's recently passed legislation, which requires school systems to adopt indoor air quality programs by 2007. Each school has an established School Health and Safety Team trained to use information in the Indoor Air Quality Tools for Schools Kit to identify IAQ problems, organize, and prioritize information. At each school, teams include a school nurse, administrator, custodian, teachers, physical education instructors, and social workers. Teams are empowered to address IAQ complaints and meet regularly. District mentors are available

---

<sup>153</sup> This section was adapted from <http://www.iaqsymposium.com> and <http://www.epa.gov>.

to help teams and are viewed as a powerful force to foster new partnerships and success. In addition, IAQ management in the Hartford Public School system has expanded and is now included in initial planning for new facilities and is a critical element of renovation.

**Start Date:** 2001

**Budget & Staffing:**

The program is supported by Hartford Health Department's Asthma-Call-to-Action Coalition, Hartford Public Schools, and other stakeholders and members of the community (e.g. University of Connecticut Health Center, City of Hartford Department of Public Health). Hartford Public Schools has also listed the support and resources from CT Department of Public Health and the Schools Indoor Environment Resource Team, the Asthma Center at CT Children's Hospital, and the American Lung Association.

**Points of**

**Contact:**

Pamela Clark, RN, MPH  
Clinical Nursing and Support Supervisor  
860.695.8760  
pclark@Hartfordschools.org

Paula Schenck, MPH  
University of Connecticut Health Center  
860.679.2368  
schenck@nso2.uhc.edu

**References:**

Hartford Public Schools, Using IAQ Management to Address Asthma in the Urban District

[http://www.iaqsymposium.com/PDFs/EEMaterials/Hartford%20Individual%20Faculty%20School%20Poster\\_FINAL.pdf](http://www.iaqsymposium.com/PDFs/EEMaterials/Hartford%20Individual%20Faculty%20School%20Poster_FINAL.pdf)

Hartford Public Schools, EPA's 2005 Excellence Award

[http://www.epa.gov/iaq/schools/tfsawards2005.html#Hartford\\_Public\\_Schools](http://www.epa.gov/iaq/schools/tfsawards2005.html#Hartford_Public_Schools)

Safe Schools Initiative Featuring Showcase School in Hartford

<http://www.epa.gov/NE/pr/2000/102600.html>

Tools for Schools Program

<http://www.epa.gov/iaq/schools/>

Tools for Schools Program, Case Studies

<http://www.epa.gov/iaq/schools/casestudies.html>

## **SUPPLEMENTAL PROGRAMS**

### **1. Integrated Pest Management in Schools<sup>154</sup>**

**Location:** Marin County, California

**Description:** Schools in California face many challenges in educating children. One challenge not normally recognized is the use of pesticides in schoolrooms and around the facilities to control pests. For many years, diminishing budgets have hindered school districts in maintaining facilities. Facility managers have shifted to practices that require less staff--for example, substituting herbicides for weed control along fencelines and selective herbicides in landscaped areas. With the growing concern over the use of pesticides, many school districts have begun to shift their practices to include IPM, but lack adequate information and training.

In 1999, Marin County schools were selected to participate in the Model School IPM Project. This project is designed to implement the Healthy Schools Act and to help schools make the transition to integrated pest management (IPM). Using IPM, schools can control pests such as ants, rats, mice, and weeds with the least hazardous methods.

Stacy Carlsen, Marin County Agricultural Commissioner, working together with Marin schools, the community, and environmental organizations, obtained funding for this project with a grant from the California Department of Pesticide Regulation. Work on the first phase of the Model School IPM Project began in the summer of 2000 and continued through December 2001. The next phase of the project begins in March 2002.

The project has completed detailed assessments of pest management practices at three target schools, Bacich Elementary, Miller Creek Middle School, and San Marin High School. The assessments found that these schools are already working to reduce their pesticide use, but could benefit from additional technical assistance to fully implement alternatives. To help fill this need the project has developed IPM training programs and educational materials for the school maintenance directors in the county.

**Points of Contact:** Mr. Stacey Carlsen  
Agriculture Commissioner  
1682 Novato Blvd, Suite 150-A  
Novato, CA 94947  
415-499-6700

---

<sup>154</sup> This section was adapted from <http://www.cdpr.ca.gov> and <http://www.co.marin.ca.us>.

**References:** A Model Integrated Pest Management Plan for Schools  
[http://www.cdpr.ca.gov/docs/pestmgt/grants/alliance/fund\\_00.htm](http://www.cdpr.ca.gov/docs/pestmgt/grants/alliance/fund_00.htm)

Marin County IPM School Program  
<http://www.co.marin.ca.us/depts/AG/main/IPM/schoolipmprogram.cfm>

## **SCHOOL ENVIRONMENT**

The **school environment** greatly impacts a children’s health behavior. Childhood obesity (and associated chronic disease) is a significant and debilitating problem in the City of Alexandria, spanning across all economic levels and races, with the highest concentrations among minority and low-income groups. Results of current research prove that obesity is “the most common nutritional disorder among [children] and a major cause of excess morbidity and mortality.”<sup>155</sup> In the past 20 years, the “prevalence of overweight among children aged 6 to 11 more than doubled, from 7% in 1980 to 16% in 2002, [and] the rate among adolescents aged 12 to 19 more than tripled, increasing from 5% to 16%.”<sup>156</sup>

Overweight children are more likely to become overweight or obese adults and develop adult health problems such as type 2 diabetes, heart disease, stroke, cancer, and osteoporosis.<sup>157</sup> In addition, “children who are overweight are at greater risk for bone and joint problems, sleep apnea, and social and psychological problems such as stigmatization and poor self-esteem.”<sup>158</sup> Physical activity and dietary habits greatly influence subsequent morbidity and mortality in adolescence and adulthood.<sup>159</sup> Targeting and improving these risk factors however, is not a simple task.

Eating and exercise behaviors are overwhelmingly influenced by our environment. From a lack of nutrition education; the mass media’s and food industry’s influence on children’s food choices; the increase of sedentary activities; the shift from at-home dining to restaurant and fast-food dining; the increase of portions sizes; to the overabundance and increased popularity of unhealthy, high-fat, processed foods; children face an environment that discourages healthy behavior. Since children spend a large portion of their time in school, research has identified schools “as key setting[s] for public health strategies.”<sup>160</sup> Therefore, schools have the potential to play a crucial role in improving children’s eating and exercise behaviors.

Unfortunately, children are not receiving good nutrition and are not developing healthy eating and physical activity habits needed to grow strong, succeed in school, and establish healthy, life-long habits. Almost 40% of foods consumed by children are eaten at school. However almost 85% of elementary school students and about 80% of adolescents do not eat enough fruits and

---

<sup>155</sup> Gortmaker SL, Peterson K, Wiecha J, Sobol AM, Dixit S, Fox MK, and Laird N. Reducing Obesity via a School-Based Interdisciplinary Intervention Among Youth - Planet Health. *Arch Pediatr Adolesc Med.* 1999;153:409-418.

<sup>156</sup> Hedley AA, Ogden CL, Johnson CL, Carroll MD, Curtin LR, Flegal KM. Prevalence of overweight and obesity among U.S. children, adolescents, and adults, 1999-2002. *JAMA* 2004;291(23):2847-2850.

<sup>157</sup> Hedley AA, Ogden CL, Johnson CL, Carroll MD, Curtin LR, Flegal KM.

<sup>158</sup> U.S. Surgeon General. Overweight and Obesity: Health Consequences.

<sup>159</sup> Gortmaker SL, et al. Impact of a School-Based Interdisciplinary Intervention on Diet and Physical Activity Among Urban Primary School Children - Eat Well and Keep Moving. *Arch Pediatr Adolesc Med.* 1999;153:975-983.

<sup>160</sup> Cho H and Nadow MZ. Understanding Barriers to Implementing Quality Lunch and Nutrition Education. *Journal of Community Health.* 2004;29(5):421-435.

vegetables; 60% of children and adolescents eat too much fat and saturated fat; 61% of children do not consume enough dietary fiber; 85% of adolescent females do not consume enough calcium; the average daily soft drink consumption has doubled among adolescent girls; almost 20% of calories consumed by children and adolescents come from added sugars; and almost 80% of adolescents do not eat enough fruits and vegetables.<sup>161</sup>

## 1. Farm to School Program<sup>162</sup>

**Location:** Rappahannock County, Virginia

**Introduction:** Healthy children are the foundation of a healthy society. Schools have the potential to provide the skills, social support, and environmental reinforcement needed for children to adopt long-term healthy habits. In an effort to combat the childhood obesity epidemic and meet the standards established by the Child Nutrition and WIC Reauthorization Act of 2004, many schools across the country are turning towards their local farmers for help. Farm-to-school programs have been very successful in improving child and adolescent nutrition, creating an economically viable local agriculture sector, and improving children’s understanding, connection, and appreciation of food and its process from farm to plate. Farm-to-school programs are becoming an increasingly popular and successful method of enhancing the quality and quantity of fresh fruits and vegetables available to students and reestablishing the connection between health and the foods students eat.<sup>163,164</sup>

Farm-to-school programs help small farmers survive in today’s environment that favors large-scale farmers. The USDA currently estimates that “almost 1.9 million farms in the US, or 94% of all farms, are small or limited-resource farms...on average, these small and limited-resource farms provide an average net income of only \$23,159 per year, as their potential to generate income has been restricted in part by depressed farm-gate prices for many bulk agricultural commodities.”<sup>165</sup>

By connecting local, small farmers to Alexandria City Public Schools, a farm-to-school program can:

1. Enhance the quality and quantity of fresh fruits and vegetables available to students and thereby offset the impact of unhealthy, competitive food available to children in many schools;

---

<sup>161</sup> Food and Nutrition Service, USDA; Center for Disease Control and Prevention, US DHHS; and US Department of Education. FNS-374, Making It Happen! School Nutrition Success Stories. Alexandria, VA, January 2005.

<sup>162</sup> This section was adapted from <http://www.headwatersfdn.org>, <http://www.farmtoschool.org>, and <http://www.rappahannock.k12.va.us>.

<sup>163</sup> Model Wellness Policy Guide. Center for Ecoliteracy, Slow Food USA and Chez Panisse Foundation. 2005 September 1. [www.ecoliteracy.org/programs/wellness\\_policy.html](http://www.ecoliteracy.org/programs/wellness_policy.html)

<sup>164</sup> Farm to School: Growing Healthy Children and Healthy Farms in New York. Cornell Farm to School.

<sup>165</sup> Tropp D, Olowolayemo S. How Local Farmers & School Food Service Buyers Are Building Alliances: Lessons Learned from the USDA Small Farm/School Meals Workshop May 1, 2000. Transportation and Marketing Programs USDA, Agriculture Marketing Service. 2000 December.

2. Increase students' understanding, connection, and appreciation of food and its process from farm to plate;
3. Provide a setting for school lunch-based nutrition education;
4. Enhance the development of lifelong healthy eating habits by improving the quality of food children consume and increasing the variety and access to fresh fruits and vegetables;
5. Improve school meal participation & product acceptance;
6. Reduce long-distance transportation and handling costs often associated with produce, by purchasing from local farmers;
7. Enable school food service buyers to introduce a greater variety and volume of specialty and/or highly perishable produce items into school menus;
8. Enable farmers to increase the profitability of their farming;
9. Increase the economic viability of the local farm sector;
10. Re-create a relationship in the community among the consumers, the farmers, and the land.<sup>166,167</sup>

**Department:** Rappahannock County Public Schools Headwaters

**Description:** The Farm-to-Table Program is a partnership between Rappahannock County Public Schools and Headwaters, the Rappahannock County Public Education Foundation.

The mission of the Rappahannock County Public Schools Farm to Table Program is to cultivate students who are good stewards of the earth and productive community members through classroom study of horticulture, cultivation of school gardens, and hands-on experiences at local family farms.

The Farm-to-Table Program helps to reinforce the ethic of preservation and transmit the art and science of agriculture through classroom study and hands-on experiences, including:

- Creating and maintaining edible and ornamental gardens around school property
- Learning about plant propagation
- Enhancing the beauty of the school grounds and creating a welcoming atmosphere to encourage learning
- Visiting local farms and exploring the business side of agriculture through work study programs
- Studying compost and soil science

---

<sup>166</sup> Tropp D, Olowolayemo S. How Local Farmers & School Food Service Buyers Are Building Alliances: Lessons Learned from the USDA Small Farm/School Meals Workshop May 1, 2000. Transportation and Marketing Programs USDA, Agriculture Marketing Service. 2000 December.

<sup>167</sup> Harmon A, Kalb M, Farrell T, Wall M, Bordi P, and Devitis C. Farm to School: An Introduction for Food Service Professionals, Food Educators, Parents and Community Leaders. National Farm to School Program, 2003.

- Learning about Rappahannock’s agrarian roots and commitment to the preservation of agricultural lands and activities
- Serving the community by growing fresh produce for those in need, for nonprofit events, and for the school community itself
- Sponsoring "Seasonal and Local Foods" tastings in both school cafeterias to expose all students to food that is healthy, grown locally, and tastes delicious

**Start Date:** January 2004

**Budget & Staffing:**

In January 2004, with support from the Cole Family Foundation and a team of volunteer community growers with backgrounds in education, The Farm-to-Table Program was launched as a partnership between Headwaters and the Rappahannock County Public Schools. In addition to a donation of \$10,000, the Foundation's gift included the time and considerable talents of Sunnyside Institute Director Janet Davis. Janet helped to create, implement, and lead the project, working with faculty, students, and community partners to craft a mission and goals, develop a curriculum, and get plants in the ground.

Initially, participants in the Farm to Table program were primarily students in David Naser's Horticulture class, Scott Schlosser's Building Trades students and Mary Arthur's Culinary Arts class. The Farm-to-Table Program is cross-curricular, which means that students in different classes, different grades, and even different schools are involved at various times. Project Coordinator Trista Scheuerlein, initially a volunteer, was hired to work part-time on the program beginning in April, 2004. Today she is a teacher employed by Rappahannock County Public Schools. She works with teachers in many different disciplines at both schools and teaches several Agriculture Exploratory classes to 6th and 7th graders.

The Program utilizes the high school greenhouse, completed in 2002. Rappahannock County residents Mitzie and (the late) Bill Young conceived the Greenhouse project and donated \$11,000 for its construction, with the balance of the funds contributed by David and Maggie Cole in memory of the late conservationist John Sawhill. Built in the Rappahannock High School courtyard with direct access to the biology lab, the greenhouse is now used daily by students for various projects.

That first semester, students in David Naser's Horticulture class and Scott Schlosser's Building Trades class, with help from co-teacher Karen Alexander, RCHS Principal Roger Mello, and the volunteer team, created raised beds, filled them with soil and aged manure, and planted them with young plants cultivated in the high school greenhouse. Students also planted trees, shrubs, and native plants in selected areas around the school

grounds. They built and started composting bins. They invited clients of the Rappahannock Senior Nutrition Center to visit and gather fresh produce. They grew 250 baby lettuces and other produce for the Culinary Arts Gala (a fundraiser for the high school's Culinary Arts program kitchen upgrade). Farm-to-Table students also visited a number of local sustainable farms to learn about, and in some cases help with, crops and methods.

The Farm to Table Program continued in 2005 with joint support by the Cole Family Foundation and a private donation from Jeff and Lisa Franzen. Student involvement grew to include participation from the Environmental Science class, the Industrial Technology class, and the Business and Entrepreneurism class. Produce was sold, shared with the Culinary Arts class, and donated to the Senior Nutrition Center. In 2005, Mitzie Young of the Young Farmland Fund established a Farm-to-Table Agriculture Exploratory class for sixth and seventh-graders at Rappahannock County Elementary School. Students in the classes learn plant propagation methods, design garden ecosystems at the elementary school, and create worm composting bins for the school's organic waste.

That year the Rappahannock County Farm Bureau joined the team, providing major funding to make continuation of the program at the high school possible.

Also in 2005, RCHS teacher Beth Gall replaced David Naser as the school's Horticulture teacher, working with Trista Scheuerlein to lead the program in the high school. The "Farm-to-Cafeteria" program was initiated, with tastings of fresh, locally grown foods offered periodically in both school cafeterias.

Beginning in fall of 2006, students in the middle school Exploratory program began participating in The Growing Connection, a collaborative project sponsored by the United Nations Food and Agriculture Organization and the American Horticultural Society. The Growing Connection links students using computer technology in the United States, Ghana, Mexico, and Nicaragua. Participating schools use specialized growing boxes called Earthboxes to grow common vegetables and use the experience as a springboard to discuss food security and world hunger.

**Alexandria  
Match:**

ACPS Wellness Policy

The Alexandria City Public Schools' wellness policy encourages good nutrition and physical activity in our schools. The Wellness Task force developed nutrition and physical activity guidelines for the policy.

Kris Clark, Executive Director for Elementary Programs, (703) 824-6912  
[kclark@acps.k12.va.us](mailto:kclark@acps.k12.va.us)

### Chinquapin Gardens

Chinquapin Gardens is a community garden located in Chinquapin Park, just off King Street near TC Williams High School, on Chinquapin Drive. Gardeners grow a wide array of fruits, vegetables and flowers. Popular crops include tomatoes, basil, squash, sunflowers, raspberries, asparagus, onions and collard greens. Each year, the gardeners come together for an annual picnic to celebrate their harvest.

The gardens are run by the City of Alexandria and are available for rent to city and area residents for a fee. Each plot is about 15x20 feet wide, and there are more than 100 plots. Rentals are available on an annual basis. A volunteer group of gardeners helps the city administer the gardens through the Chinquapin Gardens Advisory Board.

Contact: John Walsh of the City of Alexandria Department of Recreation, Parks and Cultural Activities, (703) 838-4343, ext.436,  
<http://chinquapingardens.org/>.

### Potomac Vegetable Farms

Potomac Vegetable Farms (PVF) is owned and operated by three farmers on two "ecoganic" farms in Northern Virginia. The original farm and roadside stand is located on Leesburg Pike in Vienna, managed by Hiu and Hana Newcomb, and the production farm is near Purcellville, managed by Ellen Polishuk. PVF sells at many farmers markets in the DC area and offers subscription shares (sometimes called Community Supported Agriculture, or CSA) to Alexandria, Arlington and DC area residents.

Contact: Hana Newcomb, 9627 Leesburg Pike, Vienna, VA 22182, 703-759-2119, <http://www.potomacvegetablefarms.com/>

### **Points of Contact:**

Trista Scheuerlein  
Farm-to-Table Program Director  
PO Box 448  
Washington, VA 22747  
540-987-8312  
[farm2table@headwatersfdn.org](mailto:farm2table@headwatersfdn.org)

Cole Johnson  
Headwaters Executive Director  
540-675-1819  
[director@headwatersfdn.org](mailto:director@headwatersfdn.org)

**References:** Rappahannock County Public Schools Farm to Table Program  
<http://www.headwatersfdn.org/Farm2Table/index.html>

National Farm to School Program  
<http://www.farmtoschool.org>

National Farm to School Program, Rappahannock County Public Schools  
Farm to Table Program  
<http://www.farmtoschool.org/state-programs.php?action=detail&id=55&pid=129>

Rappahannock County Public Schools  
<http://www.rappahannock.k12.va.us/>

Headwaters  
<http://www.headwatersfdn.org/index.html>

## 2. Food and Nutrition Education<sup>168</sup>

**Location:** Berkeley, California

**Introduction:** In order to successfully create a healthy school environment it is important to educate all stakeholders: administrators, teachers, staff, students, and parents. Students learn not only from their peers and family, but also from their educators. By modeling healthy eating habits, administrators, teachers, staff, and parents can promote changes in the school environment with “a positive, try-it attitude”. Professional development (i.e. nutrition education seminars and/or workshops) enable staff and teachers “to become full partners” in the development of a healthy school environment and “to facilitate a more coordinated approach to integrating” policy changes into the classroom. Furthermore, linking classroom education to changes in the school nutrition environment “”is a valuable way to get student buy-in”. While students observe changes in their school environment, the same changes can be emphasized and reinforced on a daily basis in the classroom.<sup>169, 170</sup>

**Department:** Berkeley Unified School District  
Center for Ecoliteracy  
Chez Panisse Foundation

**Description:** The School Lunch Initiative is a private-public partnership between the Chez Panisse Foundation, the Berkeley Unified School District, and the Center for Ecoliteracy. The School Lunch Initiative seeks to transform the way children are educated about food, health, and the environment.

---

<sup>168</sup> This section was adapted from <http://www.school lunch initiative.org>, <http://www.ecoliteracy.org>, <http://www.berkeley.net>, and <http://www.chezpanissefoundation.org>.

<sup>169</sup> Model Wellness Policy Guide. Center for Ecoliteracy, Slow Food USA and Chez Panisse Foundation. 2005 September 1. [www.ecoliteracy.org/programs/wellness\\_policy.html](http://www.ecoliteracy.org/programs/wellness_policy.html)

<sup>170</sup> *Making It Happen! School Nutrition Success Stories.*

Launched in 2004, the goal of the School Lunch Initiative is to change what all 10,000 Berkeley public school children eat for lunch in school, and how they learn about food, every day.

The School Lunch Initiative is reinventing the district's meal program so that students are offered freshly prepared meals in school. It also seeks to establish a kitchen, a garden, and a lunchroom in every school in the district.

SLI applies a planning framework from the Center for Ecoliteracy's Rethinking School Lunch: Linking Food, Culture, Health & the Environment Program, which aims to restore connections between what children are taught and what they experience, between nutrition, health, culture, environment and the ability to learn, and between local communities and the farms that feed them. SLI includes innovations in food service and curriculum across the Berkeley Unified School District.<sup>171,172</sup> Listed below are a few accomplishments made by Berkeley Unified School District in the 2006-2007 academic year:

- Salad bars in all of schools
- Removed 95% of processed foods
- Hormone and antibiotic free milk
- Fresh fruit and vegetables served daily
- Almost all of food made from scratch
- All bread and dinner rolls are organic
- All other rolls are whole grain
- 50% of the rice served is brown
- Swipe card systems in almost all of our schools
- A majority of food is now purchased locally (e.g. breakfast pastries, foccoccia and pizza, sliced bread and dinner rolls, sushi and eggrolls, salad dressing, 25% of all produce)
- Organic salad bar at the high school
- All hamburgers and hot dogs are natural and grass fed

The Rethinking School Lunch (RSL) program uses a systems approach to address the crisis in childhood obesity, provide nutrition education, and teach ecological knowledge. The Center for Ecoliteracy spent five years researching the 10 interrelated dimensions below, which are vital to achieving this vision:

---

<sup>171</sup> Rethinking School Lunch. Center for Ecoliteracy. [www.ecoliteracy.org/programs/rsl.html](http://www.ecoliteracy.org/programs/rsl.html)

<sup>172</sup> School Lunch Initiative. [www.schoollunchinitiative.org](http://www.schoollunchinitiative.org)



The RSL guide provides a planning framework that contains tools and creative solutions to the challenges of improving school lunch programs, academic performance, ecological knowledge, and the well-being of our children. In its chapters, experts and practitioners highlight goals and challenges, showcase success stories, and offer resources for further exploration.

**Start Date:** 2004

**Budget & Staffing:**

This project is a public/private partnership of the Berkeley Unified School District, the Center for Ecoliteracy, and the Chez Panisse Foundation.

In October 2005, the Chez Panisse Foundation helped hire Ann Cooper, a chef and former Kellogg Food and Society Fellow, as the Director of Nutrition Services for the district. Through Cooper's persistence the school district has eliminated nearly all processed foods in the district and introduced fresh and organic foods to the daily menu, while remaining within the district's food service budget.

The School Lunch Initiative partners are working with the Center for Weight and Health at the University of California, Berkeley, and the Children's Hospital Oakland Research Institute to evaluate the Initiative's impact on student attitudes, knowledge, and behaviors.

**Alexandria Match:**

The Alexandria City Public Schools' wellness policy encourages good nutrition and physical activity in our schools. The Wellness Task force developed nutrition and physical activity guidelines for the policy.

Kris Clark, Executive Director for Elementary Programs, (703) 824-6912  
[kclark@acps.k12.va.us](mailto:kclark@acps.k12.va.us)

**Points of Contact:**

Ann Cooper, Director of Nutrition Services  
 Berkeley Unified School District  
 1720 Oregon Street  
 Berkeley, CA 94703

Phone: (510) 644-6200  
Fax: (510) 644-8784  
Website: <http://www.berkeley.k12.ca.us/>

Center for Ecoliteracy  
2528 San Pablo Avenue  
Berkeley, CA 94702  
Email: [info@ecoliteracy.org](mailto:info@ecoliteracy.org)

**References:** School Lunch Initiative at Berkeley  
<http://www.school lunch initiative.org/>

School Lunch Initiative Curriculum  
<http://www.school lunch initiative.org/resources/linking-curriculum.shtml>

Rethinking School Lunch  
<http://www.ecoliteracy.org/programs/rsl.html>

Rethinking School Lunch Guide  
<http://www.ecoliteracy.org/programs/rsl-guide.html>

Berkeley Unified School District Food Policy  
[http://www.berkeley.net/uploads/nutrition/BUSD\\_Food\\_Policy.pdf](http://www.berkeley.net/uploads/nutrition/BUSD_Food_Policy.pdf)

Chez Panisse Foundation  
<http://www.chezpanissefoundation.org>

Year One Progress Report of the School Lunch Initiative Evaluation  
[http://www.chezpanissefoundation.org/downloads/year\\_one\\_progress.pdf](http://www.chezpanissefoundation.org/downloads/year_one_progress.pdf)

## **Useful Links & Resources**

### **Built Environment—The Planning and Public Health Connection**

- Active Living Network  
<http://www.activeliving.org/>
- Active Living by Design  
<http://www.activelivingbydesign.org/>
- Active Living Research  
<http://www.activelivingresearch.org/>
- Active Living Resource Center  
<http://www.activelivingresources.org/>

- Active For Life  
<http://www.activeforlife.info/default.aspx>
- Centers for Disease Control and Prevention (CDC), Designing and Building Healthy Places  
<http://www.cdc.gov/healthyplaces/>
- Centers for Disease Control and Prevention (CDC), Environmental Health  
<http://www.cdc.gov/nceh/ehs/default.htm>
- Centers for Disease Control and Prevention (CDC), Health Impact Assessment (HIA)  
<http://www.cdc.gov/healthyplaces/hia.htm>
- Centers for Disease Control and Prevention (CDC), Community Environmental Health Assessment (CEHA)  
<http://www.cdc.gov/nceh/ehs/CEHA/default.htm>
- Centers for Disease Control and Prevention (CDC), National Center for Environmental Health (NCEH)  
<http://www.cdc.gov/nceh/default.htm>
- Centers for Disease Control and Prevention (CDC), PACE EH: A Tool for Community Environmental Health Assessment  
<http://www.cdc.gov/nceh/ehs/PIB/PACE.htm>
- International City/Council Management Association (ICMA), Active & Healthy Living  
<http://icma.org/main/topic.asp?tpid=31&hsid=1>
- International City/Council Management Association (ICMA), Sustainable Communities  
<http://icma.org/main/bc.asp?bcid=647&hsid=1&ssid1=2509&ssid2=2528>
- Leadership for Healthy Communities  
<http://www.leadershipforhealthycommunities.org>
- National Association for County and City Health Officials (NACCHO)  
<http://www.naccho.org/>
- National Association for County and City Health Officials (NACCHO), Health Impact Assessment (HIA)  
[http://www.naccho.org/topics/hpd/land\\_use\\_planning/LUP\\_HealthImpactAssessment.cfm](http://www.naccho.org/topics/hpd/land_use_planning/LUP_HealthImpactAssessment.cfm)
- National Association of Counties (NACO)

<http://www.naco.org/>

- Public Health Law and Policy, Planning for Healthy Places  
<http://www.healthyplanning.org/>
- Public Health Law and Policy, General Plans and Zoning: A Toolkit on Land Use and Health  
<http://www.healthyplanning.org/toolkit/finalbook.pdf>
- United States Department of Health & Human Services, Dietary Guidelines for Americans 2005  
<http://www.health.gov/dietaryguidelines/>
- World Health Organization, Healthy Cities and Communities Program  
<http://www.euro.who.int/healthy-cities>
- World Health Organization, Healthy Cities and Communities Program, Environmental Health  
[http://www.euro.who.int/healthy-cities/UHT/20050806\\_6](http://www.euro.who.int/healthy-cities/UHT/20050806_6)

### **Food Systems & the Environment**

- American Planning Association, Food System Planning  
<http://www.planning.org/divisions/initiatives/foodsystem.htm>
- American Planning Association, Policy Guide on Community and Regional Food Planning  
<http://www.planning.org/policyguides/food.htm>
- Community Design for Healthy Eating  
<http://www.rwjf.org/files/publications/other/communitydesignhealthyeating.pdf>
- Community Food Assessment  
[http://www.worldhungeryear.org/fslc/faqs/ria\\_080.asp?section=7&click=1](http://www.worldhungeryear.org/fslc/faqs/ria_080.asp?section=7&click=1)
- Community Food Security Assessment Toolkit  
<http://www.ers.usda.gov/Publications/EFAN02013/>
- Community Food Security Coalition  
<http://www.foodsecurity.org/>
- Cultivating Community Gardens: The Role of Local Government in Creating Healthy, Livable Neighborhoods  
[http://www.lgc.org/freepub/land\\_use/factsheets/communtiy\\_gardens/index.html](http://www.lgc.org/freepub/land_use/factsheets/communtiy_gardens/index.html)
- Food Policy Councils: Access to Healthy Foods as an Element of Smart Growth

<http://icma.org/sgn/newsdetail.cfm?nfid=2653&id=>

- Food Security Learning System, Land Use Planning  
[http://www.worldhungeryear.org/fslc/faqs2/ria\\_800.asp?section=18&click=1](http://www.worldhungeryear.org/fslc/faqs2/ria_800.asp?section=18&click=1)
- Healthy Eating, Active Communities (HEAC)  
<http://healthyeatingactivecommunities.org/>
- Healthy Eating by Design  
<http://www.activelivingbydesign.org/index.php?id=392>  
<http://www.activelivingbydesign.org/index.php?id=355>
- Leadership for Healthy Communities  
<http://www.leadershipforhealthycommunities.org>
- Public Health Law and Policy, Planning for Healthy Places  
<http://www.healthyplanning.org/>
- State & Local Food Policy Councils  
<http://www.statefoodpolicy.org/profiles.htm>

## **Health Promotion**

- 2004 ACOEM Labor Day CheckList: Controlling Obesity in the Workplace  
<http://www.diabetesatwork.org/files/acoem2004labordaychecklist.pdf>
- Leadership for Healthy Communities  
<http://www.leadershipforhealthycommunities.org>
- Prevention a Blueprint for Action  
<http://aspe.hhs.gov/health/blueprint/>
- Prevention Makes Common Cents  
<http://aspe.hhs.gov/health/prevention/>
- Promoting physical activity and active living in urban environments: The Role of Local Governments  
<http://www.euro.who.int/document/e89498.pdf>
- The Role of Local Government in Physical Activity: Employee Perceptions  
<http://hpp.sagepub.com/cgi/content/abstract/6/2/214>
- Texas State Agency Worksite Wellness  
<http://www.dshs.state.tx.us/wellness/stagency.shtm>
- Texas State Agency Physical Activity Challenge

<http://www.dshs.state.tx.us/wellness/agency2.shtm>

### **Indoor Air Quality**

- California School Integrated Pest Management Program  
<http://www.cdpr.ca.gov/cfdocs/apps/schoolipm/main.cfm>
- Environmental Protection Agency, Indoor Air Quality  
<http://www.epa.gov/iaq/>
- Greening Schools  
<http://www.greeningschools.org/>
- Healthy School Environment Resources  
<http://cfpub.epa.gov/schools/index.cfm>
- Integrated Pest Management (IPM) in Schools  
<http://www.epa.gov/opp00001/ipm/>
- Reducing Pesticide Exposure in Schools  
<http://www.cdc.gov/niosh/docs/2007-150/>
- School IPM  
<http://www.ipminstitute.org/school.htm>

### **School Environment**

- Action for Healthy Kids Wellness Policy Tool  
[http://www.actionforhealthykids.org/resources\\_wp.php](http://www.actionforhealthykids.org/resources_wp.php)
- An Action for Healthy Kids Report: Parents' Views on School Wellness Practices  
[http://www.actionforhealthykids.org/pdf/parent%20survey%20100605%20\(2\).pdf](http://www.actionforhealthykids.org/pdf/parent%20survey%20100605%20(2).pdf)
- Changing the Scene: Improving the School Nutrition Environment  
<http://www.fns.usda.gov/tn/resources/changing.html>
- CookShop®, A Curriculum Guide for grades K-6  
[www.foodchange.org/nutrition/cookshop.html](http://www.foodchange.org/nutrition/cookshop.html)
- Criteria for Evaluation School-Based Approaches to Increasing Good Nutrition and Physical Activity  
[http://www.actionforhealthykids.org/pdf/report\\_small.pdf](http://www.actionforhealthykids.org/pdf/report_small.pdf)  
<http://www.cce.cornell.edu/foodsys/>

- Crunch Lunch Manual: A case study of the Davis Joint Unified School District Farmers Market Salad Bar Pilot Program and A Fiscal Analysis Model  
<http://www.sarep.ucdavis.edu/cdpp/farmentoschool/crunchlunch32003.pdf>
- Discovering the Food System: An Experiential Learning Program for Young and Inquiring Minds  
<http://www.cce.cornell.edu/foodsys/>
- Farm to School: An Introduction for Food Service Professionals, Food Educators, Parents and Community Leaders  
[http://www.farmentoschool.org/f2s\\_manual.pdf](http://www.farmentoschool.org/f2s_manual.pdf)
- Fit, Healthy, and Ready to Learn  
<http://www.nasbe.org/HealthySchools/fithealthy.html>
- Healthy Kids, Healthy Communities  
[http://www.lgc.org/freepub/land\\_use/factsheets/healthy\\_kids\\_communities.html](http://www.lgc.org/freepub/land_use/factsheets/healthy_kids_communities.html)
- How Local Farmers & School Food Service Buyers Are Building Alliances: Lessons Learned from the USDA Small Farm/School Meals Workshop  
<http://www.ams.usda.gov/tmd/MSB/PDFpubList/localfarmsandschool.pdf>
- Keys to Excellence  
<http://www.schoolnutrition.org/KEYS.aspx?ID=1162>
- Leadership for Healthy Communities  
<http://www.leadershipforhealthycommunities.org>
- Making It Happen! School Nutrition Success Stories  
[www.cdc.gov/HealthyYouth/Nutrition/Making-It-Happen/](http://www.cdc.gov/HealthyYouth/Nutrition/Making-It-Happen/)
- Model Wellness Policy Guide  
[www.ecoliteracy.org/programs/wellness\\_policy.html](http://www.ecoliteracy.org/programs/wellness_policy.html)
- School Health Index  
<http://apps.nccd.cdc.gov/shi/default.aspx>
- The Learning Connection: The Value of Improving Nutrition and Physical Activity in Our Schools  
[http://www.actionforhealthykids.org/pdf/LC\\_Color\\_120204\\_final.pdf](http://www.actionforhealthykids.org/pdf/LC_Color_120204_final.pdf)