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Finding Common Ground on Local Regional Food Systems

ISSUE BRIEF

Finding Common Ground is a series of issue briefs commissioned by the Healthy Farms, Healthy People Coalition to bring agriculture and health stakeholders together, building a stronger base of support for a healthy, economically viable food and farming system in the United States. Each brief highlights a food and farming issue in which agriculture and health stakeholders have shared interest.

When we talk about food systems, we're talking about something that affects us all – from the way our food is grown and processed to how it's marketed and prepared. We all rely on the labor of farmers, farmworkers, canning factory workers, truck drivers, supermarket stockers, and others in the chain. And we all have a stake in the environment in which the food is grown, the resources used to process and distribute it, and the consumer expectations that drive different farming techniques. All of these pieces make up the food system.

Consider an apple. It comes from a tree in an orchard, where a farmer can use any of a range of techniques to grow it, organic or conventional. Farmworkers pick, inspect, and box it up before it's transported to a processing center, where it might be inspected again, washed, and bagged by more workers (or machines) and sent a warehouse for distribution. The apple eventually finds its way to a supermarket, where it's stocked, priced, and sold by yet more workers.

Local and regional food systems represent the relationship between these steps in a limited geographic area. An apple that is grown, processed, sold, and consumed in Maryland would be part of a local food system. An apple grown and processed in New Zealand, shipped through California, and finally consumed in Maryland would not be. While there is no consensus on the geographic limit of a local food system, it is often defined as an area around 100 miles from the consumer. Regional food systems can expand to around 400 miles.¹

This issue brief highlights some basic information about local and regional food systems, and illustrates why both health and agriculture stakeholders are interested in building the market share of these systems.

Benefits of Local and Regional Food Systems

Consumers are showing increasing interest in food from local and regional food systems.² The number of farmers' markets – which tend to be the archetype of a local food system – grew twenty-fold in the United States between 1970 and 2012.³ Farms that participate in community-supported agriculture (CSA), where a farm sells subscriptions to its produce directly to local consumers, expanded from more than 1,000 in 2001 to 12,000 by 2007.^{4,5} Five percent of U.S. farms participate in local food systems by, for example, engaging in direct-to-consumer marketing, selling produce at farmers' markets, participating in farm-to-school programs, or working with food hubs and market aggregators; and in 2008 local food sales totaled approximately \$5 billion.⁶

One of the factors pushing this growth is consumers' changing preferences for local food, driven by the possible health benefits and an interest in supporting local food economies and farmers.⁷ Consumers' awareness of their foods' origins can lead to greater demands for a healthy and just food system that benefits farmers, workers, the environment, and consumers alike.

Health benefits

Local and regional food systems can help fill a gap public health researchers have identified in the nation's current food system – getting nutritious, affordable food into the hands of people who don't necessarily have access, and alleviating some of the hunger now afflicting one in seven Americans.^{8,9,10} In addition to providing access to underserved communities, local and regional food systems can be responsive to community needs and tastes. This is critical to ensuring demand for healthy food.

Consumer participation in local food systems is also associated with various positive health outcomes everyone can enjoy, not only the underserved. The health benefits derived from local and regional food systems may be the result of greater consumption of fruits and vegetables. It is also possible that locally produced food can cost less, and that face-to-face relationships with growers may encourage healthful eating. The local food environment (exhibited by outlets like farmers' markets) is often more interactive, with more opportunities for nutrition education and cooking demonstrations that help acquaint people with new ways to prepare fresh produce. Further study is needed to determine if other factors, such as income or education, contribute to these positive outcomes.



Studies indicate that rates of mortality, diabetes, and obesity are lower in areas where direct food sales and/or farmers' markets are more prevalent.^{11, 12, 13} In addition, body mass index (BMI) values tend to be lower among people who live in areas with more CSAs and farmers' markets.^{14, 15} Shorter supply chains may result in fewer food safety issues, and consumer perception that local food systems are more accountable may in fact generate pressure for higher levels of food safety.¹⁶

Agricultural benefits

From a farmer's perspective, ensuring sustainability – both economic and environmental – is paramount. A farmer's more direct involvement in a community food system can enhance sustainability in several ways:

- Direct sales strategies—like farmers' markets, farm stands, and CSAs—mean fewer intermediaries, allowing farmers to retain a larger percentage of each dollar spent on food.¹⁷
- CSA customers pre-pay for their food, providing farmers with operating income before the harvest. In this model, a CSA farmer can enjoy increased income certainty and lower business risk compared with traditional sales models in which farmers only get paid after the harvest.¹⁸
- “Food hubs” can assist local farmers in developing markets for their products beyond direct sales, and are an increasingly popular way of facilitating access to large, institutional buyers.¹⁹
- Localized processing and small-scale distribution can also create jobs in the region, due to the substitution of local food in place of goods imported from long distances.²⁰ In an analysis of the impact of farmers' markets in West Virginia, a study found that the markets increased the money generated by the state's economy by \$1 million, and local jobs by 43 full-time positions, even after accounting for displacement of other forms of local commerce (e.g., supermarkets and distribution).²¹
- Local food systems can create a positive feedback loop of higher consumer spending linked to farmers' increasing capacity to invest in agricultural machinery and local land.²² Such feedback loops can be difficult to quantify, given the long-term arc of investment and its observable results. In one study of farmers' markets, however, medium- and large-scale businesses were able to expand using the revenue generated from the markets, while small-scale vendors used the markets as an incubator for growing their businesses.²³



Environmental benefits

The environmental benefits of local and regional food systems constitute a new field of research. Arguably, involvement in a local food system may help local farms become more environmentally sustainable, making it possible and easier for future generations to continue farming. This is largely due to farmers' immediate accountability in a local food system: if a customer has questions or concerns about a farmer's methods, the grower will likely hear about it at a farmers' market or other local venue.

There are other ways in which a local and regional food system may secure potential environmental benefits:

- Local food systems may act as a “testing ground” for innovative practices supporting environmental sustainability that would be inefficient or otherwise unfeasible at large scales.²⁴

- Smaller farms catering to diverse and seasonal local tastes encourage greater diversity of crops and varieties at the landscape scale than large-scale industrial farms, which may only produce a single commodity crop for a national or global market.²⁵ By making small-scale farming more economically sustainable, small farmers close to urban areas can afford to keep their land intact and resist the financial incentive to sell farmland to developers that wish to convert it to less environmentally friendly purposes.
- In a survey of CSA members in New York State, concern for the environment and access to organic produce were cited as two of the most important reasons for belonging to a CSA.²⁶ This kind of consumer expectation and demand can encourage more ecologically sustainable farming practices.
- Local food systems may help preserve agricultural knowledge, expertise, and biodiversity specific to the local environment, which is critical for maintaining local resilience in the face of global environmental problems.²⁷
- The greenhouse gas footprint of a locally produced farm product is potentially lower given the shorter distance a product travels from farm to consumer – though its overall greenhouse gas footprint depends largely on other variables, such as fertilizer use and the nature of pasturing.²⁸

Strengthening local and regional food systems through collaboration

Collaboration between health and agriculture professionals can strengthen local and regional food systems and make them more attractive to consumers. Several examples of this type of collaboration have emerged in recent years:

- The Food Fair Network in Michigan is one of several organizations that spearheaded the concept of providing matching funds for Supplemental Nutrition Assistance Program benefits (SNAP, formerly known as food stamps) used at farmers' markets and CSAs. These **"double-SNAP" programs** are in place in more than 100 sites in Michigan alone, pumping more than \$1 million into Michigan's local farm economy in 2011 and providing healthier options for low income residents.²⁹
- The **Fruit and Vegetable Prescription program (FVRx)**, run by the Connecticut-based nonprofit Wholesome Wave, pursues a similar strategy by offering participants money to spend at farmers' markets. Primary care providers identify overweight or obese children and pregnant women to participate in the program. In addition to receiving prescriptions for more fruits and vegetables, participants receive regular visits from health care providers, reinforcing the importance of good nutrition. In 2011 the average farmers market participating in the program saw an \$8,129 increase in revenue, and many FVRx patients reported eating more fruits and vegetables as a result of the program.³⁰
- Missoula **Farm to School**, a collaboration of community and agricultural stakeholders launched in 2005, connects local farmers to the public school system in Missoula, Montana. As a result of this program, more than 16,000 pounds of Montana-grown food were purchased in 2006 and 2007, producing greater revenues for local farmers and healthier options for kids.³¹
- Local farmers and a community non-profit in Pittsboro, North Carolina came together in 2004 to create Eastern Carolina Organics (ECO), where **organic produce from 40 farmers is marketed and distributed** to more than 150 customers, including grocery stores and food cooperatives.³²
- Farmers at the Neighborhood Farmers Market Alliance (NFMA) in Seattle **donated more than 40,000 pounds of fresh produce to the city's food banks in 2011**. NFMA is the largest donor of fresh produce to Seattle's neighborhood food banks.³³



Learn More

Agriculture and health stakeholders should understand how local and regional food systems can positively affect their communities. This common understanding can lead to conversations and strategies addressing how local food systems can be promoted and designed to assist low-income residents, farmers, and the economy in their communities. Here are some resources each side can use to start the conversation:

Health stakeholders can...	Agriculture stakeholders can...
<ol style="list-style-type: none"> 1. Explore maps of your local food system and look for underserved parts of the community. www.ers.usda.gov/data-products/food-environment-atlas.aspx www.communitycommons.org 2. Learn about efforts to preserve farmland and move toward more environmentally-sound production in your state and nationally. www.farmlandinfo.org/states www.sustainableagriculture.net/blog 3. Find out if your community, county, or state has a food policy council. Learn how the council is supporting the growth of the local food system. www.foodsecurity.org/FPC/council.html 	<ol style="list-style-type: none"> 1. Explore maps of your local food system and look for underserved parts of the community. www.ers.usda.gov/data-products/food-environment-atlas.aspx www.communitycommons.org 2. Assess local demand for farm products. www.ctre.iastate.edu/marketsize 3. Look for potential funding sources to support local and regional food system development. www.sustainableagriculture.net/wp-content/uploads/2010/05/NSAC_FoodSystemsFundingGuide_FirstEdition_4_2010.pdf

Contact Us

The Healthy Farms, Healthy People Coalition convenes stakeholders from diverse sectors to discuss and collaborate on food and agriculture issues at the local, state, and federal level. Visit the coalition's website for more background and up-to-date information on the issues discussed in this brief.

www.hfhpcalition.org

ChangeLab Solutions creates innovative law and policy solutions that transform neighborhoods, cities, and states. Contact Christine Fry (cfry@changelabsolutions.org) for strategies to improve access to nourishing food for everyone.

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Funding for this series is provided by the Healthy Farms, Healthy People Coalition through a CDC cooperative agreement administered by the National Network of Public Health Institutes. The Public Health Institute staffs the coalition and provided technical assistance for the series. The views and opinions of these authors and organizations are not necessarily those of CDC or the U.S. Department of Health and Human Services (HHS).

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Endnotes

- ¹ Jensen J. *Local and Regional Food Systems for Rural Futures*. RUPRI Rural Futures Lab Foundation Paper No. 1. November 2010, p. 5. Available at: www.rupri.org/Forms/RUPRI_Rural-Futures-Lab_2010_Food_Systems_for_Rural_Futures.pdf.
- ² Johnson R, Aussenberg RA and Cowan T. *The Role of Local Food Systems in U.S. Farm Policy*. Congressional Research Service, April 4, 2012, p.2. Available at: www.nationalaglawcenter.org/assets/crs/R42155.pdf.
- ³ From an estimated 340 farmers' markets in 1970 to over 7800 in 2012. See Brown A. "Farmers' Market Research 1940-2000: An Inventory and Review." *American Journal of Alternative Agriculture* 17.4: 167-176, 2002. Available at: www.geography.siu.edu/courses/429/IndusLocal/IndusLocalE.pdf; "USDA Directory Records More than 7800 Farmers' Markets: National Resource Helps More Americans Connect with Local Farmers." USDA News Release No. 0262.12, August 3, 2012. Available at: www.usda.gov/wps/portal/usda/usdahome?contentid=2012/08/0262.xml&contentidonly=true.
- ⁴ Wilkinson J. "CD Technotes: Community Supported Agriculture." OCD Technotes. March 2001. Available: www.rurdev.usda.gov/rbs/CDP-TN20.PDF.
- ⁵ Table 44. Selected Practices 2007. In U.S. Department of Agriculture, National Agricultural Statistics Service. *2007 Census of Agriculture - State Data*. 2009, p. 606. Available at: www.agcensus.usda.gov/Publications/2007/Full_Report/usv1.pdf.
- ⁶ Johnson R, Aussenberg RA and Cowan T. *The Role of Local Food Systems in U.S. Farm Policy*. Congressional Research Service. April 4, 2012, p. 1. Available at: www.nationalaglawcenter.org/assets/crs/R42155.pdf.
- ⁷ Martinez S et al. *Local Food Systems: Concepts, Impacts, and Issues*. Economic Research Report No. 97. US Department of Agriculture, Economic Research Service, May 2010, p. 29. Available at: www.ers.usda.gov/media/122868/err97_1_.pdf.
- ⁸ Creamer NG and Dunning RD. "Local Food Systems for a Healthy Population." *North Carolina Medical Journal*, 73(4): 310 – 314, 2012. Available at: http://nciom.org/wp-content/uploads/2012/07/NCMJ_73413_FINAL.pdf.
- ⁹ *Population Estimates - National Totals: Vintage 2011*. U.S. Census Bureau, 2012. Available at: www.census.gov/popest/data/national/totals/2011/index.html.
- ¹⁰ *Supplemental Nutrition Assistance Program Participation and Costs*. U.S. Department of Agriculture, Food and Nutrition Service, 2012. Available at: www.fns.usda.gov/pd/SNAPsummary.htm.
- ¹¹ Ahern M, Brown C and Dukas S. "A National Study of the Association Between Food Environments and County-Level Health Outcomes." *Journal of Rural Health*, 27(4): 367 – 379, 2011.
- ¹² Ferrer MC et al. *Local Food Impacts on Health and Nutrition*. Paper prepared for presentation at the Agricultural & Applied Economics Association's 2011 AAEA & NAREA Joint Annual Meeting, Pittsburgh, Pennsylvania. 2011. Available at: http://ageconsearch.umn.edu/bitstream/103664/2/Ferrer_AAEA%20Paper%202011.pdf.
- ¹³ Salois MJ. "Obesity and Diabetes, the Built Environment, and the 'Local' Food Economy in the United States, 2007." *Economics and Human Biology*, 10(1): 35 – 42, 2012.
- ¹⁴ Bimbo F, Viscecchia R and Nardone G. "Does the alternative food supply network affect the human health?" Paper prepared for the 126th EAAE Seminar, Capri, Italy, June 27 – 29, 2012. Available at: http://ageconsearch.umn.edu/bitstream/126060/2/Bimbo%20et_al.pdf.
- ¹⁵ Berning JP. "Access to Local Agriculture and Weight Outcomes." *Agricultural and Resource Economics Review*, 41(1): 57 – 71, 2012. Available at: www.zwickcenter.uconn.edu/documents/jr3.pdf.
- ¹⁶ A consumer market research study by the Leopold Center for Sustainable Agriculture found that "85 and 88 percent of respondents, respectively, perceived local and regional food systems to be somewhat safe or very safe, compared to only 12 percent for the global food system." Pirog R and Larson A. *Consumer Perceptions of the Safety, Health, and Environmental Impact of Various Scales and Geographic Origin of Food Supply Chains*. Leopold Center for Sustainable Agriculture, Iowa State University, 2007, p. 2 – 3. Available at: www.leopold.iastate.edu/sites/default/files/pubs-and-papers/2007-09-consumer-perceptions-safety-health-and-environmental-impact-various-scales-and-geographic-origin-foo.pdf.
- ¹⁷ See Martinez et al, *supra* note 6, at 43.
- ¹⁸ See Creamer, *supra* note 7 .
- ¹⁹ Barham J et al. *Regional Food Hub Resource Guide*. U.S. Dept. of Agriculture, Agricultural Marketing Service, 2012, p. 18. Available at: www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELPRDC5097957.
- ²⁰ *Id.*
- ²¹ Hughes DW et al. "Evaluating the Economic Impact of Farmers' Markets Using an Opportunity Cost Framework." *Journal of Agricultural and Applied Economics*, 40(1): 253 – 265, 261, 2008. Available at: <http://ageconsearch.umn.edu/bitstream/45523/2/jaae-40-01-253.pdf>.
- ²² See Creamer, *supra* note 7, at 311, citing, for example, a study that found that for every \$100 spent at an average grocery store, \$25 is distributed locally, and for every \$100 spent at a farmer's market, \$62 is distributed locally.
- ²³ See Martinez et al, *supra* note 6, at 45.
- ²⁴ See Jensen, *supra* note 1, at 14.
- ²⁵ See Jensen, *supra* note 1, at 14.
- ²⁶ O'Hara SU and Stagl S. "Global Food Markets and Their Local Alternatives: A Socio-Ecological Economic Perspective." *Population and Environment*, 22(6): 533 – 554, 547 – 548, 2001. Available at: <http://wentfishing.net/farm-lit/27503766.pdf>.
- ²⁷ *Id.* at 539 – 540.
- ²⁸ See Martinez et al, *supra* note 6, at 48 – 49.
- ²⁹ More information on the Double Up Food Bucks Program is available on Food Fair Network's website at: www.fairfoodnetwork.org/what-we-do/projects/double-food-bucks.
- ³⁰ See "Fruit and Vegetable Prescription Program (FVRx): Overview and Program Outcomes." Available at: <http://wholesomewave.org/wp-content/uploads/2012/07/Fruit-and-Vegetable-Prescription-Program-Overview.pdf>.
- ³¹ *Id.* at 10-12.
- ³² Barham J et al, *supra* note 16, p. 4 – 5
- ³³ Neighborhood Farmers Market Alliance. *NFMA Achievements*. 2012. Available at: www.seattlefarmersmarkets.org/about_us/our_organization/nfma-achievements.