COLLABORATIVE PLANNING FOR LOCAL FOOD SYSTEMS: MUNICIPAL PRIORITIES IN ACTION

Joanna Hamilton, Hannah Kohut, Jennifer Molina, Meaghan Overton
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Joanna Hamilton, Hannah Kohut, Jennifer Molina, Meaghan Overton

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ABSTRACT

Municipalities of all sizes and types are actively working to improve their local food environments. However, most municipalities are focused on individual projects that meet immediate needs rather than comprehensively planning for and making improvements in all sectors of their local food systems.

This toolkit is the result of extensive background research and 20 one-on-one interviews with municipal officials and food advocates in 15 municipalities in Eastern Massachusetts. While many interviewees were involved in food systems initiatives, the term food system did not resonate with municipal officials. Rather, municipal officials described their efforts in terms of five municipal priorities – economic development, health, conservation, equity, and education. This toolkit approaches food systems initiatives from a perspective that is centered on these priorities, so that local government officials and food system advocates can clearly connect the food system to their long-term municipal goals.

This toolkit is intended to be a part of a collaborative planning process through which municipal officials can work with residents and other stakeholders to identify their food systems priorities, assess the current state of their local system, and implement projects that will improve the quality of life in their communities.
ACKNOWLEDGEMENTS

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Special thanks to our instructional team, Penn Loh and Emily Earle; your thoughtful feedback and constant encouragement were a great help throughout this process. Thank you also to Melissa Woods for her guidance and advice on the design of our toolkit.

Finally, we would like to thank our interview respondents for their time and the valuable contributions they provided to our understanding of food systems groups and initiatives. It was wonderful to speak with each of you.
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EXECUTIVE SUMMARY

Local governments have long addressed the essential needs of their communities—land use, water and quality of housing—and hold a responsibility to protect the health, welfare, and safety of their residents. Beyond the administration of food assistance programs, however, many municipalities have only recently begun to recognize the intersections between food and quality of life in their communities. Over the last decade, local governments on the cutting edge of policy innovation have started to think about and plan for improvement in their local and regional food systems.

Some of these pioneering municipalities are well known across the country for their food system initiatives. Oakland, CA; Minneapolis, MN and Boston, MA are just a few examples of municipalities with active food policy councils, institutional support from elected officials, and engaged community organizations that are moving food systems projects forward.

But not all food systems initiatives are being undertaken by large cities. Here in Eastern Massachusetts, municipalities of all sizes and types are actively working to improve the quality, accessibility, and availability of food in their communities. However, most municipalities are focused on individual projects that meet immediate needs rather than comprehensively planning for and making improvements in all sectors of their local food systems. Furthermore, most municipalities do not have enough time or resources to collaborate with other communities or share their successes and challenges with a broader audience.

This toolkit is the result of extensive background research and one-on-one interviews with municipal officials and food system advocates in 15 municipalities in Eastern Massachusetts. While many people interviewed were involved in food systems initiatives of some kind, most interview respondents wanted more – more information, more collaboration, and more resources and tools. The toolkit is intended to provide municipal officials and community leaders with the essential information they need to begin or expand efforts to improve their local food systems.

The information included in this toolkit is intended for use with a wide audience and, as such, offers examples and models that can be adapted for use in many different communities.

The toolkit is structured as follows:

THE TOOLKIT

Section 1 describes the methodology used to create the toolkit and its structure. This section also includes a facilitation guide for CLF Ventures (CLFV) to use in their future food systems work with municipalities.

DEFINING THE FOOD SYSTEM

Section 2 defines the term food system to help provide a common vocabulary for municipal food systems projects. This section also outlines the development of the current U.S. food system, describing both its advantages and its shortcomings. Finally, section 2 introduces the growing movement to develop more localized and sustainable food systems in the United States.
EXAMINING MASSACHUSETTS

Section 3 provides a detailed description of the history and current state of agriculture and the food system in Massachusetts. This section includes statistics and information about farming (e.g. average farm size, top agricultural products), food systems employment, and food assistance programs in the state.

FOOD SYSTEMS & MUNICIPAL PRIORITIES

Section 4 contains descriptions of the top municipal priorities identified in the interview analysis, and explains how the food system is related to each priority. The municipal priorities covered in this section are: economic development, health, conservation, equity, and education. Links to relevant initiatives are provided throughout section 4.

GETTING STARTED

Section 5 is a guide to developing food systems groups and conducting food systems assessments. After identifying their priorities in section 4, municipalities can use section 5 as a starting point for group formation and goal-setting. Though food systems groups take many forms, this section focuses specifically on Food Policy Councils (FPCs) and Agricultural Commissions (AgComs).

WORKING WITH COMMUNITY PARTNERS

Section 6 is a guide to engaging and developing partnerships with individuals and organizations in a community. This section provides best practices for community engagement, explains the importance of stakeholder analysis, and discusses some potential community concerns that may arise when municipalities initiate food systems projects.

MUNICIPAL TOOLS

Section 7 is a guide to the municipal tools that can be used for food systems development. This section describes many examples of food systems planning, zoning, and legislation from across the United States. Tools covered include: comprehensive planning, zoning for urban agriculture, zoning for farmers’ markets, right-to-farm legislation, and land preservation legislation, among others.

PROJECT GUIDES

Section 8 contains a series of Project Guides for a variety of food systems initiatives. Together they address the all the sectors of the food system and all of the municipal priorities described in Section 4. Each Project Guide provides information about how to get started and lists additional resources that may be useful for municipalities. Project Guide topics include: healthy corner store initiatives, farmers’ markets, and compost programs, among others.

REFERENCES

Section 9 is a comprehensive list of the sources cited throughout the toolkit.

APPENDIX

The Appendix includes a glossary of food systems planning terminology and recommendations for CLF Ventures as they use this toolkit with municipalities.
ONE:
The Toolkit
PURPOSE

This toolkit is intended to provide municipal officials and community leaders in Eastern Massachusetts with the essential information they need to begin or expand efforts to improve their local food systems. Because food systems planning is a complex process that is unique to each municipality, this toolkit is not intended to be a comprehensive set of directions. Rather, it is a guide for municipalities that want to incorporate food systems thinking into local policy and planning, and can be used at any stage of the food systems planning process.

Municipalities are often eager to dive into specific projects that can be completed in a short timeframe and will show results quickly. This strategy can be used to demonstrate municipal commitment to local food system development and generate interest and enthusiasm among a broader group of community members. However, it is important for municipalities to go through the deliberate processes of assessment and engagement to ensure that the projects and activities they pursue are ones that will most benefit their community in the long run.

HOW THIS TOOLKIT WAS CREATED

The creation of this toolkit was guided by three research questions:

1. What factors and concerns are common in successful food systems planning endeavors, and how can they be translated into recommendations for best practices?
2. How, and to what extent, can municipal governments affect each sector of the food system: production, processing, distribution, consumption, and waste management?
3. In what ways can municipal policy and planning tools be adapted to begin and support food systems initiatives?

These questions were investigated through several interrelated research methods including a literature review, a content analysis, and a series of semi-structured interviews.

Literature Review: The research team reviewed food policy and food systems literature from both peer-reviewed journals and publications written by reputable government entities, nonprofits, and advocacy groups. This included investigating successful, unsuccessful, and in-progress food systems development initiatives, and identifying high priority issues around community and municipal concerns.

Content Analysis: A content analysis of urban agriculture and local food initiatives as covered in major U.S. news sources was also carried out to help identify common issues and concerns involving local food systems initiatives.

Interviews: Semi-structured interviews were conducted to identify successes, challenges, and opportunities related to food systems planning development in the Metropolitan Area Planning Council (MAPC) region in Eastern Massachusetts. The MAPC region consists of 101 cities and towns in the Boston metropolitan region; these are divided into 4 community typologies: inner core, regional urban centers, maturing suburbs, and developing suburbs. Communities are defined and grouped based on similarities found in land use and housing patterns, recent growth trends, and projected development patterns.

- Out of 50 people contacted via email or phone, a total of 20 individuals were interviewed either by phone or in person.
Interviewees represented all four MAPC community types: Developing Suburbs, Maturing Suburbs, Inner Core, and Regional Urban Centers. Respondents possessed diverse levels of experience with local food systems initiatives, ranging from very little to extensive food systems experience.

At least two representatives from each of the following fields were interviewed: regional/city planners, food policy council members, agricultural commission members, municipal officials, and food systems advocates.

The interview content was analyzed and synthesized to identify common themes among interview responses. The results of the interview analysis and other research methods were used to develop this toolkit of resources and information to support municipalities in their efforts to improve local food systems.

CONTENTS

THE TOOLKIT
Section 1 describes the methodology used to create the toolkit, its structure, and the process for using the toolkit with municipalities.

DEFINING THE FOOD SYSTEM
Section 2 defines the term food system; outlines the development of the current U.S. food system and describes its advantages and shortcomings; and introduces the growing movement to develop more localized and sustainable food systems.

EXAMINING MASSACHUSETTS
Section 3 provides a detailed description of the history and current state of agriculture and the food system in Massachusetts.

FOOD SYSTEMS & MUNICIPAL PRIORITIES
Section 4 contains descriptions of the top municipal priorities identified in the interview analysis, and explains how the food system is related to each priority.

GETTING STARTED
Section 5 is a guide to developing food systems groups and conducting food systems assessments.

WORKING WITH COMMUNITY PARTNERS
Section 6 is a guide to engaging and developing partnerships with individuals and organizations in a community.

MUNICIPAL TOOLS FOR IMPLEMENTATION
Section 7 is a guide to the municipal tools that can be used for food systems development: comprehensive planning, zoning, and legislation.

PROJECT GUIDES
Section 8 contains a series of Project Guides for a variety of food systems initiatives. Together they address all the sectors of the food system and all of the municipal priorities described in Section 4.

REFERENCES
Section 9 is a comprehensive list of the sources cited throughout the toolkit.

APPENDIX
The Appendix includes a glossary of food systems planning terminology and recommendations for CLF Ventures as they use this toolkit with municipalities.
**USING THE TOOLKIT**

**PROCESS**

This toolkit is designed to follow the iterative process depicted below. Though the content is specific to food systems development, the core activities of each stage align with the collaborative planning process (Margerum 2002; Innes and Booher 2010).

**FACILITATION GUIDE**

The CLFV facilitator will use the sections of the toolkit to engage and guide municipal officials and community residents through each step of the food systems planning process. The toolkit goes into detail about the community engagement process as it is used to develop the partnerships required to sustain food systems initiatives. However, soliciting input and feedback from a diverse set of stakeholders should be part of each step of the process.

*Sections 2 and 3* should be shared with all participants in the food systems planning process to ensure that they have the same background knowledge and are speaking the same language. They can also be used as introductory material for new participants as they join the process.

If the municipality has not already identified its top priorities through a comprehensive planning/visioning process, the facilitator should guide them through that process. Once top priorities are selected, the facilitator will use the relevant portions of *Section 4* to make clear the connections between food systems and the priorities.

*Section 5* should be used to guide the municipality through the process of developing a food systems group and conducting a food systems assessment to determine the municipality’s needs and goals.

The results of the assessment should be used to determine which tools (*Section 7*) the municipality wishes to use for food systems development, and which projects (*Section 8*) are best suited to meet their needs and goals.

Food systems planning is an iterative process; once projects and initiatives have been implemented, the municipality should monitor and evaluate progress by returning to the assessment stage in *Section 5*. 


Toolkit cover photo & Section 1 cover photo by United States Department of Agriculture (http://www.flickr.com/people/usdagov/)
TWO:
Defining the Food System
WHAT IS A FOOD SYSTEM?

Our relationship with food extends beyond just the act of eating. Food takes a complex journey from its origins to consumers, passing through many hands. The term food system describes this interdependence and all the activities involved in producing, processing, transporting, storing, selling, consuming, and disposing of food. It includes all of the infrastructure and processes needed to feed a population, as well as the inputs and outputs generated along this chain, shown below.

WHY SHOULD MUNICIPALITIES CARE ABOUT THE FOOD SYSTEM?

The health, livability, and vitality of communities are all deeply impacted by municipal policy. Municipal governments have a critical role to play in addressing community economic development and environmental health issues, but many municipal officials have only recently begun to recognize connections between food and municipal priorities. Over the last decade, general awareness of and interest in strengthening and restoring local food systems has expanded, and municipalities and community organizations across the U.S. have become increasingly involved in efforts to address these issues.

Agriculture has played a significant role in the history of the United States. The Homestead Act of 1862 promoted westward expansion by promising land ownership to farmers once they had lived on the undeveloped land for five years. By the early 1900s, more than half of Americans were farmers or lived in rural communities (Ikerd 1996). These farmers generally produced a variety of crops, along with livestock.

Industrialization of the U.S. food system in the twentieth century led to a shift toward highly specialized farms with reduced diversity of production. It also increased the amount and scale of processing and transportation involved in getting food from farms to consumers.

The current structure of our food system offers many benefits: the use of chemical fertilizers and improved farm machinery and technology have led to more efficient food production and decreased labor costs (Tilman et al. 2002). Global food production and distribution have
increased variety in U.S. diets, with over 12,000 new food products introduced in grocery stores each year (Binkley and Jekanowski 2000). Furthermore, the convenience of processed foods has decreased the time required for individuals to procure and prepare meals (Ramey 2009).

Though the benefits of scale and efficiency are clear, our current food system has negative effects on our environment, economy, and health. Pesticide use, factory farms, and destructive production practices have caused environmental degradation in both rural and urban communities. Food production and transportation require significant fuel use, which leaves these sectors vulnerable to rising fuel costs, and contributes to increased pollution. The retail sector has experienced a decrease in the number of small and independent stores and a shift away from locating stores in low-income areas.

In turn, these changes may have secondary impacts such as reduced access to healthy food and diminished employment opportunities. In terms of public health, the increase in fast-food restaurants and our cultural tendency to eat more meals outside of the home have contributed to a rise in health-related diseases such as diabetes and obesity, especially in urban and poor communities (Kaufman 2004; APA 2007).

Dissatisfaction with the current industrial food system model is growing in the United States and around the world; many proposed alternatives involve assessing and improving local food systems. The local food system movement distinguishes itself from conventional models by focusing on food security, self-reliance, proximity, and sustainability (Wilkins and Eames-Sheavly 2003).

Though all four elements are integral to food systems development, proximity is the most well-known, as it is the crux of the local food movement. The U.S. Department of Agriculture (USDA) defines “local food” as food that is sold within the state in which it is produced, or is transported no more than 400 miles from its origin (Martinez et al. 2010). However, most communities and groups set their own parameters for local food--some may focus on seasonality, and some may emphasize sourcing products from a certain region or group of states.

This toolkit refers to five major sectors along the supply chain:

Production
Cultivation of edible plants and livestock

Processing
Transformation of food into food products

Distribution
All the ways food is transported, stored, and marketed from farm to consumer.

Consumption / Retail
All activities and processes by which a society acquires and utilizes food material

Waste Management
The series of activities by which food waste is collected, sorted, processed and converted to other materials (i.e. compost), or sent to landfills.
Increasing local food production and consumption is an important goal for many reasons. Higher demand for local food provides local growers with opportunities to expand and diversify their operations (LCSA 2011). Strong local food markets are beneficial to farmers (they can receive up to 7 times the revenue for local sales compared to mainstream markets) and for local economies in general, as they sustain and create jobs in farming and food-related businesses and keep food dollars circulating within communities (LCSA 2011).

Creating a completely localized and self-sufficient food system is not realistic for most municipalities, especially those in Massachusetts and other areas with relatively short growing seasons. However, communities can adopt a broad food systems perspective to affect much more than the production of local food in their municipalities. Working to increase access to healthy food can improve community health and nutrition. Setting goals to reduce greenhouse gas emissions and municipal waste can contribute to ecological sustainability. Adopting policies that encourage entrepreneurship can strengthen the local economy and encourage civic engagement (Masi et al. 2010). The processes and projects described in the toolkit will help municipalities use food systems development to support and enhance the nutritional, environmental, economic, and social health of their communities.


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THREE:
Examining Massachusetts
HISTORY OF AGRICULTURE IN MA

New England has experienced major shifts in landcover and land use patterns since European arrival in the mid-17th century. Demand for timber and for farmland caused widespread clearing and conversion of forests for agriculture; eventual transitions to industrial activities reduced reliance on the land and allowed natural forest regrowth to occur. In Massachusetts, land clearing progressed through the mid-1800s at which point open land (predominantly pastureland) peaked at near 70 percent. Grains such as corn, wheat, oats, rye, barley, and hay were grown on the plowed land, which comprised only 5 percent of the total cleared land in the state (Foster et al. 2004). It is noted that limited transportation infrastructure at the time made local production of grains for human and animal consumption critical, since storage and transportation over longer distances was not possible.

Beginning in the late 19th century, significant industrialization drew large populations away from agricultural employment and toward developing urban centers. As reliance on the land declined, farms were abandoned and natural reforestation was allowed to occur. This process returned forested land in Massachusetts to about 70 percent, demonstrating significant regrowth, but also showing a great decline in the amount of land remaining in farms. While farming once formed a “diverse base that enabled regional self-sufficiency,” the variety of products produced in Massachusetts has shrunk considerably (Foster et al. 2004, 83). Massachusetts is now known mainly for specialty crops, ie cranberries, and New England for local products including dairy and maple syrup.

CURRENT STATISTICS

AGRICULTURE AND FARMLAND

As of the 2007 U.S. Census of Agriculture, Massachusetts has 7,691 farms in operation. They encompass 187,406 acres of cropland (153,993 of which are harvested acres) and the average farm size is 67 acres. In 2007 the total market value of Massachusetts agricultural products sold equaled $489 million (NASS 2009, Table 1).

Massachusetts: top five agricultural products in 2007 (percentage of total agricultural production):

1. hay and other crops (24.8%)
2. poultry and eggs (16.5%)
3. fruits, tree nuts and berries (15.7%)
4. cattle and calves (13.9%)
5. vegetables, melons, potatoes and sweet potatoes (13.1%)
Source: (NASS 2009, Table 63)

As of 2007 there were 12,265 total farm operators in Massachusetts (5,456 men and 2,226 women), including both full-time and part-time farmers. The average age of principal farm operators in Massachusetts in the same year was 56.3 years; this number has steadily increased from an average age of 52.5 in 1978 (NASS 2009, Table 1). One reason young farmers are lacking is because beginning farmers face significant barriers including: access to education, training, and technical assistance; access to capital and credit; access to land, and access to adequate markets (Rhuf 2002).
Another issue for Massachusetts farmers more generally is that suburbanization and increased development put pressure on current farms, causing increased marginalization of farming as a profession. This is certainly an issue in the MAPC region. A number of interview respondents addressed the reduction in working farms specifically, noting that their town had recently adopted right to farm by-laws to protect farmers, or was actively working to ensure that remaining farms received the support they need to stay in business.

**FOOD SYSTEMS EMPLOYMENT**

Aside from food production occurring on farms, Massachusetts businesses host employees in a variety of food processing and consumption retail services including: food and beverage manufacturing, grocery stores and wholesalers, and food service establishments. The 2007 Economic Census conducted by the U.S. Census Bureau reports:

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<tr>
<th>Employment sector</th>
<th># of employers</th>
<th># of employees</th>
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<tbody>
<tr>
<td>Food manufacturing</td>
<td>645</td>
<td>20,557</td>
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<tr>
<td>Beverage manufacturing</td>
<td>40</td>
<td>2,453</td>
</tr>
<tr>
<td>Grocery and related product wholesalers</td>
<td>887</td>
<td>18,454</td>
</tr>
<tr>
<td>Food and beverage stores</td>
<td>4,607</td>
<td>90,032</td>
</tr>
<tr>
<td>Food service and drinking places</td>
<td>14,939</td>
<td>225,602</td>
</tr>
</tbody>
</table>

Source: US Census Bureau 2007

**FOOD ASSISTANCE**

A number of national programs exist in the U.S. to address issues of food insecurity and food access. Each program targets the needs of a specific demographic, and is designed to facilitate consistent access to healthy food.

The **Supplemental Nutrition Assistance Program (SNAP)** is designed to aid individuals and families who are unable to afford to purchase adequate food, and provides a monthly benefit payout that can be used at many food retailers, e.g. grocery stores and corner stores. SNAP functioned as a safety net for an average of 44.7 million Americans a month in 2011 (Tiehen et al. 2012). In Massachusetts, average monthly participation reached 447,066 households in 2011, with benefits totaling $1.29 billion that year. This shows a significant increase from 239,802 households on average in 2007 and total benefit payout of $472 million (FNS 2012d). These sharp increases are likely linked to the economic recession that began in 2008 and from which the economy has not fully recovered.

The **Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)** specifically aims to “safeguard the health of low-income women, infants, and children up to age 5 who are at nutrition risk by providing nutritious foods to supplement diets, information on healthy eating, and referrals to health care” (FNS 2012a). In addition to the traditional WIC program, in 1992 Congress established the Farmers Market Nutrition Program (FMNP) “to provide fresh, unprepared, locally grown fruits and vegetables to WIC participants, and to expand the awareness, use of, and sales at, farmers’ markets” (FNS 2012e). This program provides coupons specifically for the purchase of eligible foods from
farmers’ markets and roadside stands; 2.15 million WIC participants nationwide received FMNP benefits in fiscal year 2010 (Ibid.). In 2011 total participation in the program in Massachusetts was 119,099 people at a cost of $26.8 million (FNS 2012f).

Finally, the National School Lunch Program (NSLP) “provides nutritionally balanced, low-cost or free lunches to children;” over 31 million children were served each day in 2010 (FNS 2012c). Meals are priced on a sliding scale dependent on household income, with meals free for children from families with incomes at or below 130% of the poverty level. All NSLP meals are required to meet the standard Federal Nutrition requirements however local school districts make decisions about what specific foods to serve. In Massachusetts, over 90 million meals were served in 2011 to 542,258 children who took advantage of the NSLP (FNS 2012b).

**LOCAL FOOD ASSISTANCE**

Large national programs are not the only ones to address issues of food insecurity. Local soup kitchens and food pantries distribute emergency food supplies at low or no cost to individuals and families in need. These organizations are located in the communities they serve, and are often operated by non-profit or volunteer organizations.


Section 3 cover photo by United States Department of Agriculture (http://www.flickr.com/people/usdagov/)
FOUR:
Connecting Food Systems to Municipal Priorities
INTRODUCTION TO MUNICIPAL PRIORITIES

Over the last decade, local governments on the cutting edge of policy innovation have started to think about and plan for improvement in their local and regional food systems. Some of these pioneering municipalities are well known across the country for their food system initiatives. Oakland, CA, Minneapolis, MN and Boston, MA are just a few examples of municipalities with active food policy councils, institutional support from elected officials, and engaged community organizations that are moving food system projects forward.

But not all food system initiatives are being undertaken by large cities. Here in Eastern Massachusetts, municipalities of all sizes and types are actively working to improve the quality, accessibility, and availability of food in their communities. Developing suburbs like Littleton, MA have active agricultural commissions that represent farmers’ interests in local government. Dense urban areas like Chelsea, MA are working with community partners to improve food access and healthy options in convenience stores. Maturing suburbs like Concord, MA are completing food system assessments to help incorporate food into municipal plans for long-term community vitality.

This toolkit is the result of extensive background research and one-on-one interviews with municipal officials and food system advocates in 15 municipalities in Eastern Massachusetts.

The following sections approach food systems initiatives from a perspective that is centered on the priorities of municipalities, so that local government officials and food system advocates can clearly connect food system projects to long-term municipal goals. You will find strategies and tools related to five core municipal priorities: economic development, health, conservation, equity, and education.
CONNECTING FOOD SYSTEMS TO ECONOMIC DEVELOPMENT PRIORITIES

Food systems initiatives and economic development priorities overlap in many ways. The most appropriate strategies for food-focused economic development depend on the specific characteristics of the municipality. For example, a community interested in generating increased tax revenue from commercial development might focus on food hub projects for aggregation and distribution, rather than on increasing the number of farms in the town. For one municipality in Massachusetts, distribution of food to airport employees and airlines is part of the city’s economic development plan. They lack the land for significant urban agriculture, but plan to use their strengths in distribution and proximity to the airport to enhance their municipal food system and local economy.
ON THE GROUND: Farming as job creation?

While farming may not be feasible in most communities beyond a small scale, agriculture is still an important industry for municipalities to consider when they plan for economic development. In their efforts to create more localized food systems, municipalities can support beginning farmers through training programs and by increasing access to affordable farmland in much the same way that they provide support and incentives to small business entrepreneurs. It is difficult, however, to characterize farming and farm growth as job creation. Much like other small businesses, there is often a long start-up period before a farmer is financially able to hire an employee. Especially in early stages of farm development, many production jobs on farms are seasonal, part-time, low-wage and require significant manual labor. However over the long term, developing the new farms required to support local and regional food systems can result in job creation in related businesses – restaurants, service providers, and small-scale food processors are just a few examples.

Benefits of food-focused economic development

- Improved food access for community residents
- Job growth in food-related sectors, like restaurants and food processing facilities
- Increased tax base as food businesses locate in community or expand current operations
- Additional opportunities for small business innovation, especially from existing community members

Tools and project ideas

If your municipality is looking for ways to connect food systems initiatives with economic development priorities, there are lots of resources available to help you get started. See the Project Guides for Community Kitchens, Farmer’s Markets, and Food Hubs for more information.
In the United States, chronic diseases are the primary cause of illness, poor quality of life, and shortened life expectancy (Murphy et al. 2012). Research has shown that people who are overweight or obese have a higher risk of developing many chronic diseases, including some cancers, stroke, heart disease, and diabetes. Furthermore, the proportion of Americans who are overweight and obese has doubled since 1980 – recent calculations estimate that 66% of U.S. adults and 20% of U.S. children are either overweight or obese (Khan et al. 2009). The obesity epidemic shows no signs of slowing, and the prevention of chronic diseases that are linked to obesity has emerged as a primary concern of municipal officials across the country.

**CONNECTING FOOD SYSTEMS TO HEALTH PRIORITIES**

In keeping with national concerns about public health, community well-being is a major concern of many municipal officials in Eastern Massachusetts. Public health efforts generally focus on disease prevention, including diet-related diseases like obesity. Public health is often the impetus and framework for many types of municipal programs, from pedestrian and bicycle transit initiatives to the creation of food policy councils and farmers’ markets. Food-related municipal public health initiatives generally take two approaches: 1) to increase resident access to fresh, healthy food, and 2) to educate residents about the benefits of healthy eating. For most municipalities, primary efforts to increase food access involve establishing and supporting farmers’ markets. Resident education, in the form of workshops, activities, and materials, is often implemented in conjunction with the markets.
ON THE GROUND: Farmers’ markets and public health

Municipal officials are working to improve the connections between farmers’ markets and more broadly focused health programs such as Shape Up Somerville and the Federal Let’s Move initiative. While some of these relationships have already been established, many opportunities exist for municipalities to support healthy living in the future by strengthening potential partnerships between farmers’ markets and broader public health initiatives.

Shape Up Somerville

Shape Up Somerville began as a community-based research project and has become a city-wide campaign “to increase daily physical activity and healthy eating through programming, physical infrastructure improvements, and policy work. The campaign targets all segments of [the] community, including schools, city government, civic organizations, community groups, businesses, and other people who live, work, and play in Somerville” (SDH 2012, n.d.).

Who can help implement food-focused-health projects?

- Community non-profits (e.g. the YMCA)
- Neighborhood health clinics
- Hospitals
- Local schools or educational institutions

Tools and project ideas

To help you begin thinking about different ways to link your local food system with health priorities in your municipality, use the Project Guides for Healthy Corner Stores, Health Codes, and Peri-Urban/Urban Agriculture.
At a national level, the Clean Air and Clean Water Acts set limits on pollution to preserve air and water quality. Similarly, the Environmental Protection Agency (EPA) requires cleanup of sites contaminated by environmental pollutants and aims to reduce land pollution through enforcement of Superfund and brownfields regulations (EPA 2012b). But conservation encompasses much more than the absence of pollution – it is an active process of protecting wildlife habitat and biodiversity, preserving open space, managing stormwater and waste, and ensuring sustainable use of resources (Mazmanian and Kraft 2009). Many municipal officials have made conservation a priority in their communities. Some municipalities have long-term sustainability plans, while others work with partners on specific conservation projects.

**MUNICIPAL PRIORITY: Conservation**

Conservation is also a priority for municipal officials in Eastern Massachusetts, but the ways in which communities work to preserve and protect their environments varies by community type. For example, some densely populated urban municipalities are primarily interested in improving water quality and environmental health, and have done significant work with brownfield redevelopment through the EPA. Municipalities with fewer pollution concerns may invest in strategies to preserve open space as a way to expand recreational opportunities in their communities. In terms of food system development, municipal officials are working to set up rain barrel and composting programs through the Department of Public Works, and to establish community gardens and a network of small urban growing spaces.

Many municipalities value land conservation for environmental reasons and have purchased land for open space and recreation, incorporated land acquisition into their comprehensive plans, and
created Conservation Commissions to support the protection of open space. Towns with a strong agricultural heritage are more likely to include farming concerns in their zoning codes and long range plans, and conservation and open space preservation are frequently used as strategies to ward off development. Issues of food production, distribution, and access can all be connected to the conservation of open space through commonly used municipal tools and policies.

CONSERVING FARMLAND

The amount of open space in Massachusetts is rapidly decreasing. Recent estimates show that Massachusetts loses about 16,000 acres of open space a year, about 2,000 acres of which are working farmland (AFT 2008). Although tools like Agricultural Preservation Restrictions (APR) and the Community Preservation Act can help preserve open space, more work needs to be done to ensure that farming remains a viable land use.

ON THE GROUND: New Entry Sustainable Farming Project (NESFP) Farmland Matching Service

“Offers assistance with locating, evaluating and matching farmers to farmland in MA and surrounding regions”

Helps landowners:

- Understand the basics of farm leases
- Evaluate what [they] want in a lease arrangement with a farmer
- Find the right farmer and farm business for [their] land

For more information, visit http://nesfp.nutrition.tufts.edu

Tools and project ideas

Conservation and open space planning provide significant opportunities for municipalities to support local food production. If you are interested in more information about how to incorporate food systems into your conservation priorities, you may want to consult the Project Guides for Peri-Urban/Urban Agriculture and Compost Programs.
MUNICIPAL PRIORITY: Equity

Local governments attempt to provide equal services to all residents. Despite these efforts, however, disparities in access to health care, recreational opportunities, and high-quality education persist in many municipalities (Adler and Newman 2002). In addition, communities of color and low-income communities are disproportionately exposed to pollution and other environmental burdens (e.g. hazardous waste) (Brown 1995; Mohai et al. 2009). In response to these disparities, municipal governments have begun to incorporate equity into their plans and policies. For example, municipalities have initiated youth engagement programs to reduce gang violence, passed living wage ordinances to ensure that people earn enough money to support their families, and implemented affordable housing regulations to provide better living conditions for low-income residents (Saha and Paterson 2008).

CONNECTING FOOD SYSTEMS TO EQUITY PRIORITIES

Food assistance programs like the Supplemental Nutrition Assistance Program (SNAP), the National School Lunch Program (NSLP), and the Women, Infants, and Children (WIC) Program are some of the primary programs municipalities administer to address food equity issues. These programs are crucial safety nets for vulnerable populations, but access to food assistance programs does not guarantee that everyone in a municipality is actually able to access fresh, healthy food on a regular basis. Food access is a serious equity concern – 30% of interview respondents talked about the affordability or accessibility of healthy food in their municipalities. Two municipalities are pursuing healthy corner store initiatives to improve community food security, and several others are implementing SNAP or WIC farmers’ market coupon programs at their markets. One respondent also said that his municipality, which has a large immigrant population, is trying to increase the number of community garden plots so residents to enable residents to grow culturally appropriate food.
Equity

ON THE GROUND: Not just an urban concern

Creating food systems initiatives that will improve equity is not just an urban responsibility. Food systems advocates in suburban and peri-urban communities are also considering the impacts of food systems projects on low-income residents, minority communities, elderly people, and others who may not have a strong voice in municipal decision-making. Many municipal officials are working to address the needs of specific groups, such as low-income people and senior citizens, through SNAP, WIC and other voucher programs at farmers’ markets. In municipalities with lower population densities, food-related equity concerns are often related to the viability of farms and farming. Several people who work directly with growers are concerned about the protection of farmland and farm activities in suburban communities, and are working to ensure that growers have access to affordable farmland.

The Grocery Store Gap

An “urban grocery store gap” has been identified between low-income and more affluent zip codes in 21 of the largest U.S. cities (Cotterill and Franklin 1995, 14). Many residents of minority and low-income communities must rely on small convenience stores and bodegas for their daily food shopping. Compared to grocery stores, convenience stores:

- are far less likely to stock produce and healthy foods; and
- typically charge higher prices for healthy foods.

Tools and project ideas

To better incorporate equity concerns into food systems initiatives, you may want to begin with an assessment of the current state of your food system. Effective collaboration with community partners can help you gather information and include a diverse range of perspectives in your food systems project. See the Project Guides for Healthy Corner Stores and Peri-Urban/Urban Agriculture for more information.
In general, people working on food systems initiatives face two distinct education needs: 1) information for municipal officials, and 2) information for community members. Municipal officials are asking for guidance about how to design food systems initiatives and how to connect the food system to their daily work. There are high levels of interest in best practices for model ordinances, bylaws, and zoning practices. Many municipal officials are requesting technical information about health/wellness, gardening, soil safety, and small business entrepreneurship. These needs could potentially be met through collaboration with public health departments, gardening clubs, and business associations. There is also an unmet need for assessments and research to gather baseline food systems data - 40% of
interview respondents discussed their need for more information about the state of their local food systems. Municipalities have a high need for educational materials and resources.

Community members and food advocates are looking for ways to inform people about the benefits of local food systems. Word-of-mouth marketing and information booths at farmers’ markets are common methods of education. Some food advocates are also beginning to embrace social media, listservs and web-based communication. In particular, one municipality that recently completed a food security assessment is planning to publish the report on the town’s website. Their hope is that people will begin to read and talk about the assessment together, generating more interest and enthusiasm for future food systems projects.

**Strategies for community education:**
- Working through schools to get food systems information into the curriculum through school gardens or farm-to-school programs can help children learn about where food comes from.
- Inviting municipal officials to local food businesses (e.g. farms, processing facilities) can start new relationships and begin to generate support for food systems projects.
- Providing educational materials at farmers’ markets can encourage community members to talk to growers, try new foods, or get involved in health and wellness activities.

**Tools and project ideas**

For information about zoning and other policy and planning tools, see the municipal tools section of this toolkit. There you’ll find links to relevant ordinances, examples of actions taken by other municipalities, and additional resources. For more details about community education, the Project Guides for Community Kitchens, Health Codes, Healthy Corner Stores, and Peri-Urban/Urban Agriculture might be a good place to start.


Section 4 cover photo by United States Department of Agriculture (http://www.flickr.com/people/usdagov/)
FIVE:

Getting Started
COLLABORATION

As with most other municipal initiatives, food systems projects simply don’t get off the ground without collaboration. Most successful food systems projects rely on a steering committee or other food systems group to coordinate stakeholders, share information, and develop solid working relationships. Municipal support (from the board of selectmen, city council, and/or mayor) is also critical – institutional support allows for funding, staff time, and publicity as food systems initiatives develop. Within the task forces and steering committees created for food systems projects, community groups and nonprofit organizations have emerged as key collaborators. Community partners can help get information to residents and generate enthusiasm for new food systems initiatives. Even more importantly, close relationships with community partners can help to fill gaps in funding and human resources that are often major barriers to municipal involvement in successful food systems projects.

TOOLS AND PROJECT IDEAS

People involved in food systems initiatives in Eastern Massachusetts are using several techniques to ensure collaboration in their food system projects. One municipal agency is using funding for “mini-grants” to build capacity in their partner community organizations. Other strategies include stakeholder analysis and networking.

Challenges to successful collaboration:

Many people do not foresee significant opposition to food systems projects, and think that any initiative will likely be well received by community members. However, it is important to keep in mind that many factors can generate opposition to municipal initiatives.

Political differences can delay or stop food systems projects: 35% (7 out of 20) interview respondents cited local politics as a barrier to efficient or effective food systems initiatives.

Low levels of transparency about municipal processes (how to petition for a zoning change, for example) can be frustrating for community food advocates who are unsure of how to find the right person or information.

Regulations can be burdensome, especially for small specialty food vendors. Restrictions on what types of food can and can’t be sold at farmers’ markets were cited as barriers to entry for some food producers.

NIMBY (Not In My Backyard) concerns seem to arise most frequently when there has not been significant community outreach and education about planned food systems initiatives.

STRUCTURES TO SUPPORT LOCAL FOOD SYSTEMS

Municipal officials and community residents can begin to address food systems issues in their community by forming a dedicated group to plan, coordinate, and carry out that work. A food systems group may initially be informal or project-based, such as a task force established to conduct a food systems assessment or a committee working to set
up and run a farmers’ market. More formally structured food systems groups include Food Policy Councils and groups dedicated to agricultural development such as Agricultural Commissions.

**BENEFITS OF CREATING A FOOD SYSTEMS GROUP**

Research on community development and social capital shows that creating a food systems group can provide many benefits to a community. The process of creating an organization brings together various stakeholders and provides opportunities to reach agreement and make plans. These organizations can contribute to broader community development by serving as intermediaries between individual citizens and the municipal government. Participating in the creation and development of the group will increase members’ “capacity to contribute to community change” and their investment in the work (Sharp et al. 2011, 191).

Additional research has shown that developing food systems groups creates a “social infrastructure that is likely to generate and support the use of concrete policies, programs, and activities to support local farming and food systems” (Sharp et al. 2011, 202). Local leaders can contribute to local food systems groups by creating social, political, intellectual, and economic space for individuals to discuss, plan, and carry out food systems activities and projects (Feenstra 2002).

**GROUP DEVELOPMENT**

When developing a food systems group, it is essential to identify a broad group of potential stakeholders, members, and partners, and to involve that group in the planning process (Hamilton 2012). This diversity should not only be demographic; including people with various backgrounds and areas of expertise is also important. Group diversity is key to maintaining a broad food systems perspective, and will help to avoid a narrow focus on one particular sector or the needs of one particular group (Dahlberg 1994; Borron 2003). Cultivating a diverse membership means that developing a food systems group will require time and skilled facilitation to 1) bring together many individuals and their views, 2) establish trust and healthy working relationships among the members, and 3) determine the group’s structure, priorities, and first projects (Borron 2003).

**TIMEFRAME**

The work carried out by a food systems group will likely be long-term. The process of getting to know a local food system through assessments and other activities may take a few years, and though specific projects may be fairly easy to implement, the systemic change that many groups seek does not happen quickly.

**TYPES OF FOOD SYSTEMS GROUPS**

In the following sections, you will find descriptions of the structure, membership, and activities of two common food systems group types: Food Policy Councils and Agricultural Commissions. You will also find common steps for starting those groups, and resources for more information. Though there are differences between the group types, the form and name of the organization is likely less important than the fact that a food systems group exists in your community, and is managed in such a way that members and engaged citizens can create and carry out projects related to food systems development.
FOOD POLICY COUNCILS

WHAT ARE FOOD POLICY COUNCILS?

Food Policy Councils (FPCs) are one type of group established to develop the food system within a particular municipality, county, state, or region. They are intended to address “the actions and in-actions by government that influence the supply, quality, price, production, distribution, and consumption of food” (Harper et al. 2009, 1). However, the activities of FPCs are not limited to policy change, as many of them have a significant focus on programmatic work (Schiff 2008).

FPCs have existed in the United States since the 1980s and usually operate at the state and the local or county level. Compared to more farm- and agriculture-focused organizations such as Agricultural Commissions, FPCs are more frequently found in urban areas and have a more prominent representation of consumers and environmental social justice groups (Sharp et al. 2011).

HOW ARE FOOD POLICY COUNCILS CREATED AND STRUCTURED?

FPCs can be created by community organizations and residents, or through a government act such as an executive order or joint resolution (Harper et al. 2009). There are tradeoffs to keep in mind when considering the structure and relationships of your FPC. Having an official connection to local government can provide a FPC with resources, status, and access within a community. Independent FPCs may have less access to those benefits, but in exchange have more freedom to set their own agenda and priorities (Borron 2003).

Who are the members of a Food Policy Council?

Ideally a FPC includes representatives from all sectors of the food system and from many constituencies in the community. Membership may include any and all of the following:

- Farmers
- Anti-hunger and food justice advocates
- Educators and other school system representatives
- Nonprofit organizations
- Concerned citizens
- Government officials
- Grocers
- Chefs and restaurateurs
- Food processors, wholesalers and distributors
- Community and religious leaders
- Scholars and researchers (Borron 2003; Harper et al. 2009)

WHAT MUNICIPAL PRIORITIES DO FOOD POLICY COUNCILS ADDRESS?

FPCs address many of the municipal priorities discussed in section 4: economic development, health, conservation, equity and education. They provide a forum and structure for collaboration among municipal departments, and similarly between municipal departments and community groups and residents. FPCs can also serve as a bridge organization between a specific municipality and its neighboring communities by encouraging collaboration and resource sharing. From initial assessments to the resulting projects, much of a FPC’s work will address health and economic development concerns, such as understanding...
and meeting the nutritional and food access needs of the community, or following the flow of “food dollars” spent by residents and directing that money to local businesses and markets.

**Food Policy Council Resources**

- The national Food Policy Council Program, a project of the Community Food Security Coalition, offers free support for “the development and operation of current and emerging Food Policy Councils.” [http://www.foodsecurity.org/FPC/](http://www.foodsecurity.org/FPC/)
- The APA’s Planning and Community Health Research Center offers many publications about food systems planning and food policy councils. [www.planning.org/nationalcenters/health](http://www.planning.org/nationalcenters/health)
- In 2010, Massachusetts established a 17-member state-level Food Policy Council; its “purpose is to

  1) increase production, sales and consumption of Massachusetts-grown foods;

  2) develop and promote programs that bring healthy Massachusetts-grown foods to Massachusetts residents through various programs such as increasing institutional purchases of Massachusetts-grown food, targeted state subsidies, and increasing access to healthy Massachusetts-grown foods in communities with disproportionate burdens of obesity and chronic diseases;

  3) protect the land and water resources needed for sustained local food production; and

  4) train, retain and recruit farmers and to provide for the continued economic viability of local food production, processing and distribution in the commonwealth.” [http://www.mass.gov/agr/boards-commissions/mfpc.htm](http://www.mass.gov/agr/boards-commissions/mfpc.htm)

**AGRICULTURAL COMMISSIONS**

**WHAT IS AN AGRICULTURAL COMMISSION?**

Agricultural Commissions (AgComs) are another type of food system group, usually found in rural areas and communities with a significant agricultural history and/or current presence of agriculture. As the name implies, AgComs are generally more focused on agriculture and the production sector of the food system than FPCs and other food systems groups. The number of AgComs in MA has increased dramatically in recent years, from six in 2001 to over 100 today (MAC 2012).

**HOW ARE AGRICULTURAL COMMISSIONS CREATED AND STRUCTURED?**

TownscanformanAgriculturalCommissionbypassingabylaw ata Town Meeting. In cities, a city council can make a recommendation for the creation of an Agricultural Commission which must then be approved by the mayor. The leadership structure of AgComs follows that of many town committees (Chair, Vice-Chair, Secretary, Treasurer), and they operate according to the Massachusetts Open Meeting Law, MGL c.30A, s.18-25. Each AgCom’s duties and responsibilities are determined by the town or city. Unlike some other town committees, AgComs do not have regulatory power. Instead, in an advisory capacity they give a voice to local agriculture in town governance.
WHAT DO AGRICULTURAL COMMISSIONS DO?

Agricultural Commissions serve as the voice of farmers and agriculture in municipal government. AgComs take on various projects to fulfill their mission of supporting the agricultural industry, such as passing Right to Farm legislation, establishing farmers’ markets, conducting an inventory of local farms and agriculture-related businesses, and promoting land conservation and open space preservation in their communities. Through these initiatives and others, an AgCom can serve as a liaison between the agricultural sector and the rest of the community.

WHO ARE THE MEMBERS OF AN AGRICULTURAL COMMISSION?

AgCom members are appointed by selectmen or town or city councilors. The membership generally represents “the principal elements of the local agricultural community and agricultural businesses, by geography, commodity and size of farm. An agricultural commission may include other supporters of farming and land preservation as well as people who also serve on other town boards and commissions, such as the planning board or conservation commission” (Merrill, n.d.). The bylaw that creates the AgCom will specify the “number of members and composition of the commission” (MDAR 2005, 2).

WHAT MUNICIPAL PRIORITIES DO AGRICULTURAL COMMISSIONS ADDRESS?

AgComs work to advance municipal priorities such as conservation, economic development, and education. By bringing together farmers, agricultural business representatives, municipal officials, and members of the broader community, AgComs provide many opportunities for interdisciplinary communication and collaboration. Through their work on open space protection and environmental initiatives, they promote land conservation and sustainability. AgComs also promote economic development by supporting farmers, agricultural business owners, and the interests of the local agricultural industry. Finally, AgCom activities and the Commission’s participation in municipal governance provide many opportunities to educate the community about farming and agriculture.

STARTING AN AGRICULTURAL COMMISSION

The Massachusetts Department of Agricultural Resources (MDAR) Handbook for Agricultural Commissions includes a list of steps and is a good resource for (see side box/below) for how to create an AgCom in your community. The process is much like creating a standard organization, but requires additional formal legislative elements. For example, MDAR notes that “it is important to include a member of the Board of Selectmen, City Council, and town staff such as the town planner, administrator, health agent and/or conservation agent on the AgCom steering committee.” Once an Agricultural Commission is established, its first activities are often to develop a plan of work, establish a budget, and communicate with the public. If the establishing bylaw does not require a plan of work, the AgCom may operate on a project-by-project basis.
Common Steps when starting an AgCom:

1. Assess the interest in your community by talking to farmers, community decision makers, residents, boards, and committees.

2. Organize an exploratory and educational public meeting to discuss starting an AgCom in town:
   - Invite farmers and community decision makers through written letters; invite residents and the general public through press releases and newspaper articles.
   - Invite members of established AgComs to speak about why they organized, what they do and the benefits of having an AgCom.
   - Ask an active farmer, Town Administrator and/or Selectman to facilitate the meeting.

3. If support for creating an AgCom surfaces at the meeting, convene a group of steering committee volunteers immediately following to agree on a date, place and time to meet more formally.

4. Develop an article for the Town Meeting warrant; prepare for the Town Meeting by educating residents and town officials about the article and its benefits to the community.

It is important to include a member of the Board of Selectmen, City Council, and town staff such as the town planner, administrator, health agent and/or conservation agent on the AgCom steering committee.

AgCom Resources

- The Massachusetts Department of Agriculture (MDAR) offers resources and guidance for AgComs in MA. http://www.mass.gov/agr/agcom/

- The Handbook for Agricultural Commissions includes MA General Laws relating to agriculture, open meetings, and conducting public business; sample AgCom bylaws; a model right to farm bylaw; steps commonly used to develop work plans; examples of AgCom work plans; and public education plans. http://www.mass.gov/agr/agcom/docs/handbook/PDF/handbook-for-agricultural-Commissions-full-Doc.pdf

- The Massachusetts Association of Agricultural Commissions (MAAC) provides education, training, and support for AgComs across the state. Their resources include a toolkit for organizing an Agricultural Commission. http://www.massagcom.org/resources/resources.html#toolkit
Conducting a food systems assessment is a critical first step to ensure that food related initiatives will be beneficial to your municipality, well received by community members, and sustained by engaged community organizations and residents. A thorough assessment can help quantify the specific needs you wish to address through your food systems initiative, as well as begin to generate dialogue among community stakeholders.

WHAT CAN A FOOD SYSTEMS ASSESSMENT DO FOR YOUR COMMUNITY?

Food systems assessments aim to explore the different facets of local food systems in a comprehensive, systematic way. Though every community conducting a food systems assessment will have slightly different goals, municipalities generally use food systems assessments to

1. Understand the current state of the food system,
2. Set goals for improvement,
3. Generate policies and initiatives to meet goals, and
4. Identify indicators to monitor the success of food systems initiatives (Cohen 2002).

Investing the time and resources required to complete a food systems assessment in your municipality can have multiple, long-lasting benefits including:

- increased support and momentum for food systems initiatives as residents become involved in the assessment process;
- improved integration of programs in multiple areas, e.g. better coordination of health/wellness initiatives and farmers’ markets;
- enhanced awareness of community needs and assets;
- strengthened relationships among community groups, municipal officials, and residents; and
- targeted use of scarce funding and human resources (Pothukuchi et al. 2002; Cohen 2002).

WHO SHOULD CONDUCT THE ASSESSMENT?

A food systems assessment is a significant undertaking for any community, regardless of municipality size or level of available resources. Data must be collected from many different sources, and the goals and initiatives developed in a food systems assessment process can have far-reaching implications for community organizations, municipal departments, local schools, and others. For these reasons, many food systems assessments are planned and implemented by task forces or steering committees of 6-12 participants that have been specifically convened to conduct the assessment (Abi-Nader et al. 2009; Cohen 2002). The composition of these stakeholder groups varies widely, but often includes municipal officials, representatives from community organizations, engaged residents, and content experts.

WHAT SHOULD BE MEASURED?

There are many different (and often overlapping) types of food systems assessments that policymakers, planners, community organizations, and others are currently using to measure and monitor food systems across the U.S. Because food systems assessments are a relatively new tool, there is no generally accepted method for conducting a food systems assessment.
systems assessment (Pothukuchi et al. 2002; Freedgood et al. 2011; Minaker et al. 2011). The types of measurement that will work best for your municipality are inextricably linked to the unique priorities and characteristics of your community. Below, you will find descriptions of several food systems assessment tools and the types of communities for which they might be appropriate.

**FOOD SYSTEMS ASSESSMENT TOOLS**

The following examples of a variety of assessment tools and resources are included to help you decide how to measure your local food system. Think of these resources as a starting point for discussion in your municipality and consider adapting relevant assessment processes to reflect the concerns and ideas of people in your community. This list of assessments is by no means exhaustive - please see the additional resources at the end of this section for further information.

**MUNICIPAL-LEVEL ASSESSMENTS**

**A Food Systems Assessment for Oakland, CA: Toward a Sustainable Food Plan** (Unger and Wooten 2006)

- Initiated by the Mayor’s Office of Sustainability for the purpose of creating a plan to reach 30% local food production in Oakland. The study was conducted over an 8-month period by Serena Unger and Heather Wooten, graduate students from the University of California at Berkeley. The assessment uses a comprehensive food systems approach to explore Oakland’s food-related production, distribution/processing, consumption, and waste activities.
- Primary municipal priorities addressed: equity, conservation, economic development

**Food NYC: A Blueprint for a Sustainable Food System** (Stringer 2010)

- Initiated by the Manhattan Borough President to help craft policy goals that will “spark systemic change in New York’s regional food system” (6). The assessment, based on a 2009 report, was conducted over a 3-month period with input from New York University and the NYC Food & Climate Steering Committee. Food NYC sets 10 goals for New York City’s food system, encompassing economic development, health, education, and food access concerns, among others. The goals were informed by feedback from 1,114 attendees of a one-day Food & Climate Summit.
- Primary municipal priorities addressed: health, economic development, equity

**2010 Toronto Food Sector Update** (Ajayi et al. 2010)

- Prepared for the Toronto Economic Development and Culture Division to update an earlier report (Food Industry Outlook, WCM Consulting 2002) and explore changes in consumer preference and demand in the food industry. The update, conducted over a 3-month period, reports that the food and beverage industry is Toronto’s second largest employment sector in the city, and that many employers are small or medium-sized businesses.
- Primary municipal priorities addressed: economic development

**Town of Hoosick (NY) Draft Agriculture and Farmland Protection Plan** (2011)

- Initiated by the town board to develop a municipal agricultural
and farmland protection plan, in partnership with the American Farmland Trust and the Rensselaer County Economic Development and Planning Department; directed by a committee of farmers and residents. The report thoroughly describes the agricultural land base and benefits of farming to the community. Goals of the plan include encouragement of on-farm renewable energy, education of town residents, and the development of a local agricultural economy, among others.

- Primary municipal priorities addressed: conservation, education

**Food policy audits** (Ray and Cobb 2010; Sanders and Shattuck, 2011)

A more recent approach to food systems assessments has been developed by professors and graduate students at the University of Virginia. Using an evaluation list of approximately 100 municipal policies, students conducted interviews and researched the existence of food-related policies in the 6 municipalities of central Virginia that comprise the Thomas Jefferson Planning District. Instructions for completing a food policy audit and templates for use in your municipality are available at [http://ien.arch.virginia.edu/courses/food-systems-resources#audit](http://ien.arch.virginia.edu/courses/food-systems-resources#audit).

**FOOD SYSTEMS ASSESSMENTS: GENERAL PROCESSES**

1. Determine scope/information needs
2. Create a team to conduct the assessment
3. Plan the assessment process and timeline
4. Collect and analyze data
5. Formulate initiatives and indicators to measure progress
6. Implement/Evaluate (Cohen 2002)

**QUESTIONS TO CONSIDER**

- What is your goal in undertaking this assessment?
- Is relevant data available? If not, will you be able to collect it?
- Are there community groups already working on the parts of the food system you want to measure? They may have data, funding, or people to share. (Cohen 2002)
- How much time are you willing to commit to a food systems assessment of your community? Depending on the comprehensiveness of your assessment, the process could take anywhere from a few months to 2 or more years (Pothukuchi et al. 2002)

**Additional Resources**

This toolkit is primarily geared toward the municipal level, but there are several extremely useful food systems assessments that have been conducted at regional and state levels. The following assessments might be of particular interest to Massachusetts food systems advocates.

**Rhode Island Food Assessment** (Karp Resources 2011)

- Utilizes “supply chain case studies” to develop priorities for improving community food security in Rhode Island. Case studies include farm to school, milk to supermarkets, fish to restaurants, and direct-to-consumer farm sales.

**Home Grown: The Economic Impact of Local Food Systems in New Hampshire** (Magnusson and Gittell 2010)

- Primarily focused on the food industry (defined in the report as local agriculture, food manufacturing, food support services, and

**Greater Philadelphia Food System Study** (DVRPC 2010)

- Uses the concept of a 100-mile foodshed around Philadelphia to represent the potential land base for local agriculture in the region. The assessment includes both a comprehensive food systems approach and a thorough stakeholder engagement process.

**Vermont Farm to Plate: A 10-Year Strategic Plan for Vermont’s Food Systems** (VSJF 2011)

- A 10-year strategic plan for Vermont’s food system created by the Vermont Sustainable Jobs Fund and the Vermont Sustainable Agriculture Council. The primary goals of the plan are to increase food-related economic development, create food and farm jobs, and improve food access. The plan looks at local, regional, and national markets.

For an excellent overview of food systems assessment types and examples, see Freedgood et al. (2011), “Emerging assessment tools to inform food system planning,” *Journal of Agriculture, Food Systems, and Community Development* 2(1), 83-104.

Abi-Nader, Jeanette, Adrian Ayson, Keecha Harris, Hank Herrera, Darcel Eddins, Deb Habib, Jim Hanna, Chris Paterson, Karl Sutton, and Lydia Villanueva. 2009. Whole Measures for Community Food Systems: Values-Based Planning and Evaluation. Mad River Valley, VT: Center for Whole Communities.

Ajayi, Jesse, Catherine Denson, Brendan Heath, and Kimberley Wilmot. 2010. 2010 Toronto Food Sector Update. Toronto, Canada: University of Toronto.


Unger, Serena and Heather Wooten. 2006. *A Food Systems Assessment for Oakland, CA: Toward a Sustainable Food Plan*. Oakland, CA: Oakland Mayor’s Office of Sustainability, University of California, and Berkeley Department of City and Regional Planning.


Section 5 cover photo by Ron Francis, Natural Resources Conservation Service, United States Department of Agriculture.
SIX:

Working with Community Partners
ENGAGING COMMUNITY MEMBERS AND BUILDING COMMUNITY SUPPORT

Although municipal interest in food systems planning is growing, it remains rare for municipalities to have a department or staff person dedicated to the design and implementation of new food systems initiatives. In addition, communities frequently have little or no funding allocated specifically for food systems planning. These constraints make it critical for municipal officials to tap into resources and knowledge available through other municipal departments, local organizations, and interested groups and individuals within the community. Partnerships and collaboration with stakeholders and community groups play an important role in generating support for new initiatives and in enabling those initiatives to move forward. Engaged stakeholders can provide much needed start up support for food systems initiatives, and can inject valuable expertise and resources into new and expanding programs.

There are two separate, yet often intertwined issues to keep in mind: the first concerns collaboration with knowledgeable organizations, individuals, and groups; the second concerns engaging with and inviting feedback from the community as a whole. Though many of the strategies for engagement overlap, the process for recruiting and working with targeted collaborative groups and individuals versus the broader community may differ, depending of course on the size and level of interest in your community. This section will specifically address strategies for engaging stakeholders and community partners outside the sphere of municipal departments.

WHY BUILD COMMUNITY SUPPORT?

Collaboration is valuable to bring a range of perspectives to a project, to build feelings of ownership and accountability within the community, and to create foundations for effective actions for long-term change (Pothukuchi et al. 2002). A solid group of committed stakeholders and a high level of community buy-in are key to implementing and sustaining new local initiatives, partly because residents must recognize a direct benefit from new initiatives if they are to endorse them and to support their success. Widespread community support makes clear that new initiatives are appreciated and desired, and can fuel the implementation and expansion of new programs.

BEST PRACTICES FOR BUILDING SUPPORT WITHIN YOUR COMMUNITY

A number of themes emerged in speaking with interview respondents and in reviewing literature on food systems initiatives. It may be helpful to keep the following in mind when designing your strategies for engagement and outreach:

- Early and ongoing community involvement is important
- A high level of community buy-in helps win support for new initiatives and is critical for large-scale projects in residential areas (CFPAC 2011)
- Strong leadership is essential to implement and sustain initiatives
- In searching for potential collaborators, target specific individuals or organizations with desirable skills, knowledge, or experience
• Work through existing community organizations to get the word out and to build support (Bernstine et al. 2007)

• Outreach is a two-way communication and should “include communicating both the goals of the process and the benefits of participation, as well as seeking to understand community members’ [related] issues and interests” (Pothukuchi et al. 2002)

• Be sure to recognize constraints (time and otherwise) that community partners may have to participation

WHAT STEPS CAN YOU TAKE TO IDENTIFY POTENTIAL PARTNERS AND GET PEOPLE INVOLVED?

Specific strategies for engagement depend greatly on your particular community, however building support and getting the word out to community members frequently involve similar strategies as laid out below.

To connect with targeted constituent groups and to identify stakeholders:

• Perform a stakeholder analysis by “mapping community resources” to identify engaged individuals, neighborhood associations, community-based organizations, and other groups who have active food-related initiatives or who might be likely supporters of your work (Bernstine et al. 2007).

• Attend meetings of potential constituent groups to gauge interest and solicit their support; this strategy lessens the burden on constituents at the beginning of the engagement process, and sends the message that you value their involvement.

• Use the stakeholder analysis to assemble a diverse steering committee or other collaborative group with broad community representation and the specific skills and knowledge needed to drive new initiatives forward.

Assembling an assessment team

In their document ‘What’s Cooking in Your Food System,’ the Community Food Security Coalition lays out a list of criteria to use when identifying members of a food security assessment team (Pothukuchi et al. 2002, 42). Targeting collaborators with these characteristics will be valuable for any initiative.

Community representation: Seek engaged residents and respected community members who have a stake in the outcome;

Diversity: A diverse group (racial/ethnic diversity, but also diversity of skills, knowledge, and experience) will bring in different perspectives, foster creative thinking, and facilitate community buy-in;

Expertise and experience: A broad skill set and knowledge base will bolster resourcefulness and the group’s capacity to move forward;

Availability: Seek collaborators who are able to participate consistently and who are willing to commit to the process;

Capacity for decision-making: Collaborators empowered to make decisions on behalf of their organization will help to move the process forward efficiently
To engage and involve the broader community:

- Educate residents about new food-related initiatives and how they integrate with existing municipal priorities. This can be done through mailings, local news articles, open public meetings, community activities, or other channels.
- Tap into community networks and established organizations (e.g. Boy Scouts, League of Women Voters, climate action groups) to distribute educational information on food-related initiatives in your community, and/or to spread the word about upcoming public meetings.
- Employ social media (e.g. community listservs, twitter accounts) or traditional media (e.g. newspapers, flyers) to educate and inform residents about new initiatives and/or upcoming meetings.

Questions to consider:

The following questions and suggestions are meant to help you get started in thinking about what types of support you need, and where to look for these resources.

1. What specific skills and resources might you need for this initiative, and where might you find them?

   Whatever your background and experience, it is likely you will lack at least some of the skills and knowledge that are essential to your chosen initiative. Starting a community garden may require organizational skills to generate support and the ability to locate appropriate land and secure permits, but could also require carpentry skills to build raised beds and knowledge of composting and gardening techniques. If you have little vegetable gardening experience, recruiting a farmer to provide advice on structuring the garden space and to lead workshops for community members on vegetable gardening would be a huge help. You may also want to consider assembling a board of advisors for your food systems initiative - members of the board can offer expertise in small business ownership, accounting, farming, or other skills that are critical to project success.

2. Where can you find potential supporters of proposed food-related initiatives in your community?

   Start by “mapping community resources” (Bernstine et al. 2007). Identify engaged individuals, neighborhood associations, community-based organizations, and other groups who are already engaged in food-related initiatives (e.g. soup kitchens, community gardening programs, composting programs), or who might be likely supporters of your initiative (e.g. classroom or out-of-school time educators, gardening associations, environmental conservation groups, small business owners, public officials). Then you can begin to reach out to those individuals and groups to gauge their interest and to build support. Additionally, public meetings or announcements are a great way to access interested community residents who may not be part of specific groups.

3. What level of involvement are you looking for from collaborators?

   Collaborators may have more or less time to give depending on their position and other commitments, so it’s important to work with them based on how much time they can offer. For example, starting a community garden will require short-term commitments from collabora-
tors to raise funds or to design and build raised beds; maintaining the garden will require ongoing support and involvement from people who are willing to manage the space throughout the season or to provide technical support to new gardeners.

4. What is the best strategy to reach out to potential partners?

Flyers and open community meetings could attract a broad audience, whereas attending meetings of specific groups or inviting representatives to an organized meeting takes a more targeted approach. Whichever method you choose, it is essential to first educate potential partners about your initiative: what it is, why it’s important, how it will benefit the community, what will be involved. Be clear and honest about the initiative, and try to address any concerns from community members as soon as possible. Misinformation can lead to strong opposition from residents that may be challenging to undo and can make it very difficult to move forward.

WHAT CONCERNS MIGHT YOU HEAR?

A content analysis of articles published in U.S. newspapers revealed the following as related to farming, gardening, and raising animals in urban and residential areas; concerns and questions were raised regarding:

- Noise from farm operations and animals;
- Smell from farm operations and compost facilities;
- A potential increase in vermin and predators around farms;
- The line between “what is appropriate in an urban area and what starts to become offensive” (Patterson 2011);
- The effect of urban farms on property values and neighborhood aesthetics;
- Vandals and thieves in gardens;
- Uncertainty about who will be responsible for farm upkeep;
- Diseases potentially carried by chickens and other farm animals;
- Fear of bee stings and bee allergies.

WHAT IS THE BEST WAY TO ADDRESS CONCERNS THAT ARISE?

It is wise to try to preempt resident concerns and to eliminate misinformation about initiatives immediately. Educating residents and community groups about the goals and benefits of proposed initiatives and being honest about any potential negative impacts will help reduce unfounded opposition from community members. Beginning as early as possible to engage groups and individuals within the community will generate momentum for your initiative and will strengthen buy-in and feelings of community ownership of the project. Though the particular issues that arise and solutions to those issues will be different in every community, support will certainly help move initiatives forward.

ADDRESSING COMMUNITY CONCERNS

A significant number of newspaper articles have been written about resident concerns as related to urban agriculture regulations and projects. While urban agriculture initiatives are only one small part of all potential food-related initiatives, a brief overview of common concerns may give you a sense of what type of issues may arise in your community, and will get you thinking ahead of time about how to address those issues.


Patterson, Steve. 2011. “Forum Tonight on Backyard Farming; Discussion to Focus on its Coexistence with City Life.” Florida Times-Union, Jacksonville FL, Oct 6, C-1.


Section 6 cover photo by United States Department of Agriculture (http://www.flickr.com/people/usdagov/)
Municipal Tools for Implementation
INTRODUCTION TO MUNICIPAL TOOLS

In 2007 the APA published its Policy Guide on Community and Regional Food Planning, a literature survey and report that highlighted the many ways municipalities can and should be involved in food systems development. Potential activities include farmland preservation, comprehensive planning, using zoning codes to regulate food production and retail, and planning mixed developments to include appropriate food designations (APA 2007). These activities require the use of various regulatory and non-regulatory tools that can aid in the alignment of these activities with municipal priorities.

Once you have assessed your municipality’s food system you will need to determine the best tools and techniques for meeting the needs and goals you have identified. This section provides legislative statutes and land use policy techniques that your municipality can customize when integrating food systems initiatives into your policy and planning goals. The tools covered in this chapter will help you remove some common barriers to food system projects, as well as encourage your municipality to set longer-term priorities and demonstrate its commitment to working on food systems issues.

APA Policy Recommendations for Community and Regional Food Planning (2007)

1. Support comprehensive food planning processes at the community and regional levels;
2. Support strengthening the local and regional economy by promoting local and regional food systems;
3. Support food systems that improve the health of the region’s residents;
4. Support food systems that are ecologically sustainable;
5. Support food systems that are equitable and just;
6. Support food systems that preserve and sustain diverse traditional food cultures of Native American and other ethnic minority communities;
7. Support the development of state and federal legislation to facilitate community and regional food planning discussed in general policies #1 through #6.

COMPREHENSIVE PLANNING

COMPREHENSIVE PLANS & FOOD SYSTEMS

Comprehensive Plans (CPs), also referred to as Master Plans, set forth the long-range goals, objectives, and strategies to address the challenges and guide the future growth and development of a community. These documents enable municipalities to outline long-range community needs while providing a process for incorporating community input and achieving consensus. Some state legislation requires that all
municipalities adhere to a comprehensive plan, but local governments in most states, including Massachusetts, are not required by law to develop a plan. While these plans are visioning documents and not legally binding, they guide planners and policy makers through the process of identifying future service needs. In addition to traditional planning topics such as land use, transportation, economic development, housing, and natural resources, Comprehensive Plans can address food systems issues and support projects such as urban agriculture, farmers’ markets, and healthy food districts.

**Benefits**

- CPs can help guide overall municipal development and set tangible goals for improving the food environment in a city or town.
- The process of creating a CP provides opportunities for municipalities to engage residents and stakeholders from all sectors of the food system in discussions about the community’s future.
- In a CP, a municipality can articulate the many connections between the community’s long-term needs and food systems issues, and establish policy and planning recommendation for meeting those needs.

**Limitations**

- Comprehensive Plans are not legally binding and not required under most state laws.
- The effectiveness of a CP depends on the municipal government to adhere to its policy recommendations, to follow through on the CP’s proposed projects and initiatives, and to monitor and evaluate progress over time.
- Developing a CP is a lengthy, complex process; municipalities often struggle to ensure that the plan represents the interests of all residents.

**ON THE GROUND: Lansing, MI**

In 2011, the City of Lansing, Michigan incorporated the APA’s seven general policy recommendations for community and regional food system into the city’s 20-year Comprehensive Plan. While Lansing already had a growing number of community gardens and farmers markets, building a stronger local food infrastructure to encourage healthy lifestyles was a long term planning priority identified through the public involvement process (LPND 2012). Lansing’s Plan includes regulatory and non-regulatory actions the city can facilitate as an active participant in food system planning such as:

- Revise existing land use policies and codes to permit urban agriculture in various zoning districts;
- Increase collaboration with community organization to providing gardening spaces on city land;
- Support the creation of food business districts by developing specific zoning and land use policies; and
- Work with Land Banks to adopt policies for mid- and long-term urban agriculture on foreclosed properties.

**COMPREHENSIVE PLANNING EXAMPLES**

**Design Lansing,** 2012 Comprehensive Plan, Lansing, Michigan
http://www.lansingmi.gov

**Baltimore Sustainability Plan,** 2009
ZONING FOR FOOD SYSTEMS DEVELOPMENT

Municipal officials use zoning to protect the health, safety and welfare of residents by regulating the use of land and controlling the physical aspects of property development. Zoning ordinances dictate the physical aspects of property such as the height of buildings and parking requirements, as well as the permitted uses allowed in each zoning district. While traditional Euclidean zoning has sought to separate rural activities from urban life, there is now a push to include more local food system activities across various peri-urban, suburban and urban landscapes. In response, municipal planners are rethinking and revising regulatory practices so that land use policies explicitly incorporate food systems topics.

Though zoning can be restrictive in nature and may initially present barriers to some food systems projects, planners can review and redesign zoning ordinances that relate specifically to municipal priorities and community needs. Rezoning should be considered in a participatory planning process in order to address concerns from all sectors of the food system. Modifying zoning codes can help facilitate many local food system activities within a municipality.

CONSIDERATIONS FOR SUCCESSFUL ZONING

The section below outlines various zoning techniques used across the U.S for urban agriculture, healthy food environments, and farmland preservation. Municipalities are starting to increase their efforts to change local zoning codes to prioritize food systems activities. The formal recognition of these activities within a legal framework undoubtedly enhances the visibility of food systems at the municipal level.

While zoning is a helpful tool for incorporating food system activities and priorities at a municipal level, it is sometimes overlooked by community members because the development and approval process can be lengthy and complicated. If a municipality fails to clearly define the objectives, uses, and scale of an ordinance, the regulation can become diluted and difficult to enforce. Zoning techniques must be embraced by all stakeholders for successful application.

Another key to zoning success is effective coordination with and direct participation from a diverse group of stakeholders. Incorporating mechanisms for community participation in planning and implementation is recommended when using zoning as a policy and regulation tool. The diversity of a stakeholder group is crucial and builds a municipality’s capacity to assess its challenges and opportunities. This collaborative process allows a municipality to examine the types of food systems initiatives that are appropriate for the city and its residents before moving forward with zoning amendments.

Milwaukee Comprehensive Plan, 2010

City of Seattle Comprehensive Plan, 2005
www.phlpnet.org/healthy-planning/create_implement_gp.
TYPES OF FOOD SYSTEM ZONING

Below you will find zoning examples from cities and towns across the U.S. that have been used to support and enhance urban and peri-urban agriculture activities, improve food environments, and expand farmers’ markets. Basic summaries of each tool and examples are provided for reference as you plan to integrate food systems into your municipality policies and plans. The appropriate model and the details of its implementation will vary based on municipality type (urban, suburban, peri-urban, rural), local needs, and municipal priorities. Links to draft legislation, ordinances, and amendments are provided at the end of the section.

URBAN AND PERI-Urban Agriculture Zoning

What is Urban and Peri-Urban Agriculture?

Urban and peri-urban agriculture refers to the production, distribution and marketing of plants, animals, and ornamentals on public and public land within the core of metropolitan areas and its edges (CFSC 2007). These food products can be grown for personal consumption, educational purposes, sale or donation, or a combination of these purposes.

The size, scale, and techniques involved in urban food production vary and are adaptable based on the space available. Urban agriculture has been proven successful in backyards, community gardens, rooftops, and vacant lots. Urban farmers generally grow crops in soil or in raised beds, but other tools and techniques such as greenhouses and hoop houses, aquaponics, and vertical mediums are gaining popularity.

While growing local food has become a popular way to contribute to the health, equity, economy, and conservation priorities of communities, there are still barriers and challenges to growing crops and raising animals in and around cities. Some of these barriers include access to land; zoning designations; residential concerns about odor, noise, and appearance; waste management; and soil contamination. Zoning techniques cannot remove all these barriers explicitly, but can provide the necessary regulatory language to permit and promote urban agriculture in urban and peri-urban locales.

URBAN/PERI-Urban Agriculture Zoning Models

Zoning ordinances that incorporate urban agriculture activities reflect the changing public opinion about how land should be used to meet municipal priorities. Chicago, San Francisco, Milwaukee, Minneapolis, and Boston are just some of the many cities that have made substantial changes to zoning codes to permit growing crops, raising livestock, and practicing animal husbandry. The manner and extent agricultural activities are permitted varies by city. While some cities such as Milwaukee treat urban agriculture as a use category, other cities such as Boston and Cleveland designate agricultural zoning districts. The zoning models below are intended to act as templates from which your municipality can begin to draft its own urban agriculture zoning and policy framework.
ON THE GROUND: Milwaukee Agriculture and Livestock Uses

City of Milwaukee, Zoning Code § 455.14 and 473.14

Agricultural Uses, Livestock, Greenhouses, Nurseries, Seasonal Markets

Milwaukee is home to Growing Power, a nationally-known two-acre farm and greenhouse nonprofit organization committed to sustainable food systems. Since Growing Power's inception, the city of Milwaukee has been actively engaged in urban agriculture initiatives involving food security, job creation, and beautification of city property. The city has revised its zoning codes to include agricultural use categories for residential, commercial, park, and institutional zoning districts. These uses include growing crops, raising livestock, and establishing greenhouses and nurseries. In residential and industrial districts these uses are permitted by right, but they require a special permit outside these districts.

While Milwaukee has put considerable effort in revising its zoning codes, the city has not defined urban agriculture, nor has it explicitly addressed the scale of urban farming. These omissions may create issues when enforcing zoning regulations. Land availability is also a concern for Milwaukee farmers; longer lease terms and land affordability measures should be further explored.

ON THE GROUND: Chicago Urban Agriculture Zoning Code Amendment

City of Chicago, Il. Zoning Code § 17-2-0207

Community Gardens, Urban Farms, Accessory Buildings, Aquaponics, Bees, Composting

Several urban agriculture programs that address food security, job training, and public health have been active in Chicago. Based on the findings and recommendations outlined in Chicago’s 2009 Food System Report, the Chicago Planning Department, residents and community organizations have dedicated people and resources to explore zoning codes that incentivize the conversion of vacant lots and rooftops to small- and large-scale urban agriculture projects (CCT 2009).

As of 2011, Chicago’s zoning amendments follow Milwaukee’s lead in treating urban agriculture as a use category, but expand its reach by permitting community gardens in all zoning districts, and urban farms in all districts except residential and some business districts. The zoning code also explicitly defines the difference between community gardens and urban farms, allows compost to be generated and used on-site, and specifies the building permits required for accessory buildings such as greenhouses, sheds, and farm stands. Further research is needed before the City decides on zoning and regulations for outdoor and rooftop aquaponic systems.

ON THE GROUND: Minneapolis, MN Zoning Ordinance Amendment

City of Minneapolis, MN. Zoning Code §74.80, § 201.30

Beekeeping and fowl, farmers’ market, urban agriculture zoning amendments (in progress)

Minneapolis first began to address urban agriculture and zoning in the context of its 2003 city-wide Sustainability Plan. This plan led to the creation of Homegrown Minneapolis (HGM), an initiative to “improve the growth, sales, distribution, and consumption of healthy, locally grown foods within the city and surrounding regions” (Klingler 2009, 7)

HGM has made significant strides in advancing urban agriculture. Its successes include amending the zoning ordinance to allow beekeeping, fowl, indoor and outdoor farmers’ markets, and
creating a formal Urban Agriculture Plan that identifies the zoning changes needed to formally recognize urban agriculture and its related activities. The city council is currently amending zoning codes after a 2 year long public process that included input from farmers, residents, businesses, experts, and other stakeholders.

**ON THE GROUND: Seattle, WA Urban Agriculture Zoning Ordinance**

City of Seattle, WA Ord. No. 123378

Farm stands, livestock, urban farms, community gardens, rooftop greenhouses

Seattle is a leader in the urban agriculture movement; its success in this area is due to collaborative efforts between community groups, municipal agencies, academia, non-profit organizations, and private businesses. Prior to 2010, the city had acknowledged the many benefits of agriculture but its codes did not have a unique classification for urban agriculture, and did not distinguish between community gardens and urban farms.

With the increase in resident demand to grow food and to update regulations to accommodate citizen needs, Seattle approved an ordinance in 2010 that revised its land use codes to include definitions, as well as gradation of uses. The ordinance clearly distinguishes between types of agricultural use such as urban farms and community gardens, and permits

- urban farms in all districts (outright or as conditional use; max 4,000 sq. ft),
- livestock (accessory use or permitted conditional use),
- community gardens in all zones (max 1,000 sq feet),
- rooftop agriculture (max 20-25 % of roof area), and
- aquaculture in commercial and industrial zones.

**OPEN SPACE ZONING SUB-DISTRICTS**

Community gardens are defined as an area of land managed and maintained by a group of individuals to grow and harvest food and nonfood crops for non-commercial uses (ACGA 2012). Though community gardens are popular in many towns and cities, municipalities do not consistently address them in codes and ordinances. In some cities and towns community gardens are allowed only as additional uses on residential properties (accessory use) and properties used solely for gardens (permitted use) are not allowed.

One zoning method to allow community gardens on public and private land is to create a separate “community garden” sub-district of open space. This gives gardening the same protections as other types of open space uses. Having a distinct zoning subcategory ensures long-term protection of these open spaces and the activities permitted. Boston, Baltimore, and Chicago all have similar open space districts that allow for community gardening.

**ON THE GROUND: Boston, MA, Open Space Sub-districts**

City of Boston, Ma Zoning Code § 33 (1988)

Community gardens

Boston has 200 school and community gardens maintained by various agencies and nonprofit organizations throughout Boston. Gardens vary in size and use, spanning from pocket parks to large vegetable plots; their produce improves food security for many low to moderate income families. Many of these gardens are managed by homeless shelters, senior centers, housing develop-
Boston takes a comprehensive approach to protecting and conserving community gardens through land use regulation. Their open space zoning district includes nine sub-districts, including land appropriated for and limited to community gardens. The community garden sub-district permits the cultivation of vegetables, fruits, and flowers. Defining gardening as an acceptable way for citizens to use open space demonstrates Boston’s commitment to health, equity, and conservation.

OTHER ZONING TOOLS

AGRICULTURAL OVERLAY DISTRICTS

Overlay zoning is a regulatory tool created by establishing a special zoning district superimposed over an underlying zoning districts in order to protect a specific resource such as agricultural land and aquifers, or to guide a particular use or type of development that is deemed an appropriate use of the land. These overlays are adopted to supplement or modify a municipality’s zoning requirements that are otherwise applicable in underlying districts (SGV 2012). Examples of overlay districts can be found in urban areas, as well as suburban and rural towns.

Urban Agriculture Overlay Districts (UAODs, inner city and metro-regions)

ON THE GROUND: Boston, MA Urban Agriculture Overlay District (AOD)

City of Boston, MA. City of Boston Zoning Amend. ch. 665 § 3.1.A (2011)

Urban Farming, Composting

The Mayor of Boston’s Urban Agriculture initiative includes two phases: the Urban Agriculture Overlay District (UAOD) and the rezoning initiative. The purpose of the this two-phase approach is to focus on public health and equity, while promoting economic development by supporting the local food production citywide.

On November 20, 2011, the City of Boston passed a text and map amendment to the city’s zoning code to establish an UAOD. This amendment will allow farming by right on two vacant city-owned parcels within the Greater Mattapan Neighborhood district, including the right to compost on-site and sell produce (City of Boston Zoning Amendment ch. 665 § 3.1.A).

The rezoning initiative started in the winter of 2011 under a working group appointed to explore the ways in which the city’s zoning code could meet the needs of various types of urban agriculture. The group plans to have a draft ready for public process in the fall of 2012, with zoning hearings to follow. Some forms of agriculture the city is exploring include growing produce, keeping animals and bees, rooftop agriculture, aquaponics, farmers’ markets, and on-farm infrastructure (BRA 2012).

ON THE GROUND: Cleveland, OH Urban Garden Districts and Agriculture Overlay District

City of Cleveland, OH. Zoning Code § 336.01 , § 336A (pending approval)

Community Gardening, Keeping of Animals & Bees, Urban Farm

Cleveland has responded to growing food insecurity and the increased demand for local food by adopting successive zoning ordinances favorable to urban agriculture. In 2007, Cleveland adopted an Urban Garden District that enabled both community gardening and urban farming. This was followed by ordinances
that permitted farm animals and bees, as well as agricultural uses in residential districts. These successes have prompted Cleveland to create an agricultural overlay that specifically protects community and urban farms by designating areas where they are permitted by right. The UAOD is pending approval from the City Council.

**Agricultural Overlay Districts (AODs, rural/peri-urban/suburban)**

Agricultural Overlay districts are similar in nature to UAODs, but focus on protecting and preserving agricultural lands in rural, suburban, and peri-urban areas, including working farms and land that contains prime agricultural soils.

**ON THE GROUND: Town of Amherst, MA Agricultural Overlay Districts**

Amherst Township, MA Zoning Ordinance § 280-285

In 1989, Amherst developed an Agricultural Overlay to protect prime farmland. This innovative zoning ordinance required that any development projects (e.g. subdivisions) within the overlay district be clustered together in order to preserve the remaining land for agricultural purposes. When creating the overlay, the town considered many factors including the amount of prime agricultural soils on the individual parcel, its proximity to other blocks of farmland, the size of the parcel and probability of development risk. This zoning process required expertise and knowledge from the Amherst Planning Board, Agricultural Commission, and local residents (EEA 2007).

**ZONING FOR HEALTHY FOOD ENVIRONMENTS**

Over the last 20 years, obesity rates have dramatically increased in the United States (CDC 2012). In 2009, one third of adults and close to 17% of children and adolescents were obese (Ogden et al. 2012). One of the many factors contributing to this public health crisis is the increased consumption of low-nutrient, high calorie foods.

In addition to using zoning tools to support food production, municipalities can also use their zoning powers to attract grocery stores, limit fast food businesses, and support farmers’ markets in their communities. These regulations can control retail space occupancy, limit density of fast food establishments, and require certain businesses to be a minimum distance away from schools, parks, and other areas where children often frequent (CDC 2012). It is recommended that this method be combined with other collaborative efforts to create healthier food environments. While zoning may prove effective at removing or limiting unhealthy foods, communities need to develop ways to attract or maintain healthy food options. These methods may include providing financial resources, technical assistance, and business incentives to grocery stores, farmers’ markets, and other businesses that offer healthy food to residents (Bell and Standish 2009).

**FAST FOOD ORDINANCES**

It is not uncommon for a municipality to regulate the locations of food service establishments, especially fast food restaurants. While some communities prohibit all fast food restaurants, others regulate the density and number of these establishments within a given area.
ON THE GROUND: Using zoning to meet health and equity priorities

Los Angeles, CA
Food security advocates influenced the city to pass an interim control ordinance that limits fast food restaurants and drive-through outlets in certain low-income neighborhoods. While the interim ordinance is in effect, the city is developing incentives and design regulations to attract food options that align with community’s goals and objectives (Los Angeles Ordinance No. 180103 2008).

Detroit, MI
Detroit’s zoning ordinance requires specified standard, carry-out, fast-food, and drive-in restaurants to be at least 500 ft from elementary, middle schools, and high schools (Detroit, MI, Zoning Ordinance, § 61.12.91).

Arden Hills, MN
This zoning ordinance requires fast food restaurants and drive-in businesses to be at least 400 ft from schools, churches, public recreational areas and residential lots (Arden Hills, MINN., Code § 1325.04).

Incentive Zoning for Healthy Food

In the past few years, New York City, Los Angeles, and Philadelphia have rolled out zoning and financial incentive programs to encourage the development of healthier food options. Long term monitoring and program evaluation will be needed to measure the effectiveness of coupling zoning with financial incentives to create healthy food environments.

ON THE GROUND:

Concord, Massachusetts bans all fast food and drive through restaurants (§4.7.1 2008).

Westwood, California regulates the density of fast food restaurants per street (§5.B 2004).

Warner, New Hampshire requires specific distances between fast food restaurants in established areas (Warner, NH Zoning Ordinance Article XI 2001).

“Healthy Zone” Ordinances

While state laws regulate the health and sanitation codes of fast food establishments and mobile vendors, local zoning powers allow municipal officials to regulate the location of these establishments to promote the health of their citizens (NPLAN 2012). These ordinances do not prevent the selling of non-nutritious foods by businesses already located where children frequent; but they can be used in areas that are currently free of fast food or to prevent additional establishments from locating in school zones.

Many cities throughout the U.S. have enacted zoning ordinances that regulate the locations of certain food service establishments and mobile vendors within specific distances of neighborhoods, schools, parks, and community centers. However, there are limitations to this these types of ordinances. Municipalities must keep in mind food variation and quality in order to clearly define fast food establishments for zoning purposes. Also, this type of zoning amendment can create community opposition from both residents and businesses alike.
ON THE GROUND: New York, NY FRESH

New York City, Zoning Resolution. Article 6. Special Regulations, Chp. 3 § 63 (2011)

Zoning and Financial Incentives

New York City’s Food Retail Expansion to Support Health (FRESH) Program is a great example of incentive zoning in action. FRESH was formed in response to a 2008 study that found a shortage of grocery stores providing fresh food options in many low and moderate income neighborhoods. In order to improve the quality of life and economic condition of selected areas, FRESH decided to combine financial and zoning incentives to encourage the upgrade and expansion of existing grocery stores, as well as promote the development of new full-line grocery stores. Stores eligible for FRESH must sell a general line of healthy food products, have a minimum store selling area of 6,000 sq. ft., and adhere to special design and certification regulations (e.g. signage, MOU, deed restriction).

What incentives are included?

Zoning Incentives

- Offers additional floor area to developers in Commercial and Mixed Residential Buildings with FRESH food Stores
- Reduces amount of required parking for FRESH foods stores up to 40,000 sq. feet
- Allows larger stores (up to 30,00 sq ft) to be built in light manufacturing districts by right

Financial Incentives

- Provides Mortgage Recording Tax Deferral
- Reduces Property Tax on increased value of new renovation or construction
- Sales Tax Exemption on goods used to equip facility, construct, or renovate (NYC DCP 2008).

ZONING FOR FARMERS’ MARKETS

Over the last two decades farmers’ markets have grown dramatically. In 2011 there were 7,000 markets across the U.S. (four times the number in 1994), and 245 in Massachusetts alone (AMS 2012; AMS 2011). In 2006, just over $1 billion of local produce and goods were sold at farmers’ markets (Ragland and Tropp 2009).

Like urban agriculture, farmers’ markets continue to struggle to achieve permanence within municipal land use policies. Often farmers’ markets are required to obtain a conditional use permit or variance, which can be subject to denial from year to year. Some advocates suggest that municipalities should encourage farmers’ markets through permitted use in certain zoning districts, or under an incentive zoning scheme, particularly in underserved areas (Kareem and Thornton 2009).

Partnerships are also recommended, as they allow farmers markets to establish themselves in both private and public spaces. Hospitals, schools, universities, commercial centers, and parks are examples of locations in varying districts in which zoning for farmers’ markets could be applied. These permitted uses could be tailored to the specific needs and priorities of a municipality. Lastly, incentive zoning could provide developers extra square footage or expedited permits if they pursue “bonus uses,” including farmers’ markets (Mair et al. 2005).
**Additional Zoning Resources**

**Land Use and Policy**


Community Gardening/Urban Agriculture Land Use and Policy Inventory chart, prepared by Public Health Law and Policy, http://norcalheal.cnr.berkeley.edu/docs/CommunityGardenPolicyInventory_PHLPPdf


**Zoning Ordinances/Amendments**


Chicago’s Community Garden and Urban Farm Ordinance Amendments FAQ http://www.cityofchicago.org/content/dam/city/depts/doe/general/NaturalResourcesAndWaterConservation_PDFs/Sustainable%20Backyards/UrbanAgFAQ.pdf


Milwaukee Zoning Codes, see Subchapter 5 -8 for districts permitted http://www.mkedcd.org/czo/index.asp

Township of Amherst, MA Agriculture Overlay District, http://www.farmlandinfo.org/documents/28355/MA_AmherstTWP_Agdis&Cluster.PDF


Livestock/Keeping of Animals/Bees Ordinances


City of Minneapolis, Minn. Zoning Codes Amendments ( 2010), http://library.municode.com/index.aspx?clientId=11490

LEGISLATION TO SUPPORT FOOD SYSTEMS DEVELOPMENT

RIGHT-TO-FARM LAWS

Right-to-Farm laws were originally developed in the 1970’s at the state level. Lawmakers were becoming more aware of the decline of agricultural land across the country as urban and suburban populations encroached upon traditional agricultural areas. These population shifts and sprawling developments generated conservation concerns, as well as complaints from new residents about odor, dust, noises, and other byproducts of farming operations.

Right-to-Farm statutes have been enacted in all 50 states with varying statutory language. The purpose and intent of Massachusetts’ Right-to-Farm law is that all citizens have the right to farm under the Massachusetts’ State Constitution, ensuring “the protection of the people in their right to the conservation, development and utilization of the agricultural, mineral, forest, water, air, and other natural resources” (Massachusetts Constitution, Article 97). There are currently three general laws that fall under the state of Massachusetts Right-to-Farm enabling statutes. See Additional Resources for specific legislation.

Purpose of Right-to-Farm in Massachusetts

The Commonwealth of Massachusetts’ Right-to-Farm law seeks to protect existing farmers and ranchers from nuisance lawsuits through standards of acceptable farming practices allowable by law. Nuisances protected under law include odors, noise, visual clutter, and large farming machines (Mass. Gen. Laws Ch. 243, § 6, 2005). Right-to-Farm laws are designed to meet one or both of the following objectives:

1. To strengthen a farmer’s legal position when sued for private nuisances by abutting property owners and/or the general public.

2. To protect farmers from anti-nuisances ordinances and arbitrary controls on agricultural activities.

Right-to-Farm at the Municipal Level

While state-level Right-to-Farm laws legally protect individuals’ rights to engage in agricultural activities, municipalities in Massachusetts can pass by-laws that reassert the Right-to-Farm statutes pursuant to a town’s authority. A by-law is a municipal version of a federal or state law that shifts much of the responsibility for local governance from the state legislature to the local community. The “Home Rule Amendment” (Article 89 of the Articles of Amendment of the Massachusetts Constitution) confers this authority.

In 2005, Massachusetts created a state “Right-to-Farm” by-law model for municipalities to emulate. As of 2010, there were 101 communities that had created their own Right-to-Farm by-laws (MDAR 2011).

Benefits

A Right-to-Farm by-law

- Outlines municipality priorities to support agricultural activities based on both state regulations and local needs.
- Creates public awareness around the rights of farmers.
- Establishes a dispute resolution process to mediate conflicts be-
between residents. Local community bodies such as Agricultural Com-
missions, town councils, or other planning advisory committees can
thus act as the intermediaries in resolving agricultural disputes.

- Protects prospective land buyers by requiring sellers to issue a
disclosure notice indicating that the land they are about to acquire
lies within a town where farming activities occurs. This is not re-
quired in all towns with a Right-to-Farm by-law.

**Limitations**

The intent of a Right-to-Farm law is to protect existing farms in rural
and suburban areas from sprawl. This does not protect new farms
established within urban communities. Urban municipalities are free to
regulate activities to protect the health, safety, and welfare of the public
through local zoning, health, and environmental standards, including
the exclusion of agriculture.

**Additional Right-to-Farm Resources**

- Right To Farm By-Law (MA Model) Model Bylaw for cities/towns, http://
  www.mass.gov/agr/docs/farmbylaw.pdf
- Massachusetts Right to Farm Enabling Statute (Actions, Limitations)
  MA; State Laws; Mass. Gen. Laws Ch. 243, § 6 (2005), http://www.farm-
  landinfo.org/documents/28806/MA_243_6.htm
- Massachusetts Right to Farm Enabling Statute (Relating to Board of
  www.farmlandinfo.org/documents/28807/MA_125A.htm
- States’ Right to Farm Statutes-State of Massachusetts, http://www.na-
tionalaglawcenter.org/assets/righttofarm.massachusetts.pdf
- American Farmland Trust Farm Laws Fact Sheet, http://www.farmland-
  info.org/documents/27747/FS_RTF_9-98.pdf
- Right to Farm Resources, National Agricultural Law Center at the Univer-
  sity of Arkansas School of Law, www.NationalAgLawCenter.org

**TRANSFER OF DEVELOPMENT RIGHTS (TDR)**

Transfer of Development Rights (TDR) programs provide states and
municipalities with a powerful and flexible technique for land use con-
trol. TDR is used in both a non-regulatory and regulatory context under
which development rights can be severed from a tract of land and sold
in a market transaction. The land from which the development rights
are removed is permanently restricted under a conservation easement,
which is non-regulatory in nature. The purchaser of the development
rights then can sell them to developers who are looking to gain ad-
ditional density in a different parcel of land. This is where a regulatory
approach comes into play, as the allocation of development rights must
be consistent with adopted plans and compliant with all applicable
zoning regulations. These rules and regulations are declared by local
legislative bodies (Nelson et al. 2010).

**TDR and Food Systems Planning**

TDR is a unique planning tool that uses private markets to preserve
farmland, while directing growth in a responsible manner. TDR pro-
grams offer two key benefits to municipalities: they compensate land-
owners for lost property value due to zoning changes and use markets
to pay for the preservation of farmland for the public good. Though this technique has been used to transfer rights from rural or peri-urban sites to highly dense districts, TDR could also provide incentives for urban agriculture. This transfer of rights would happen at a smaller scale, where an open space parcel could be protected in exchange for development projects in higher density areas (Erickson et al. 2009).

Municipalities must keep in mind that not every community is the same, and programs need to complement comprehensive plans and be flexible to changes in the market and within the community they benefit. TDR programs must also consider the advantages of working alongside other preservation techniques and partnering with land trusts, non-profits, and regional associations to leverage resources and meet preservation goals. Although this approach does not take the place of zoning, TDR preserves agricultural resources, redirects development, and creates a greater permanency than traditional zoning regulations.

The Massachusetts TDR-enabling statute’s purpose is “to protect open space, preserve farmland, promote housing for persons of low and moderate income or further other community interests” (Mass. Gen. Laws. Ch. 40A, § 9 2005). The law requires towns to provide zoning ordinances or bylaws that allow for special permits that authorize TDR. The law further requires towns to identify specific sending and receiving districts, and incentives such density, intensity of use, floor space, and portion of lot covered.

Benefits
- TDR offers a market based approach to resource protection; this is unique because it does not require public funds.
- TDR is most effective in communities facing strong development pressure.
- TDR is more permanent than zoning and makes development more predictable.
- TDR allows farmers to retain fee simple ownership of land, and gives them income that can be used to purchase additional farm land and farm equipment, or support transition planning.
- TDR allows sending areas that are privately owned to continue to receive the tax benefits acquired through estate and property tax; they can be used to support public education, police and fire, and local infrastructures. (Nelson et al. 2010, LTA 2011).

Limitations
- Implementing TDR requires significant education for municipal officials and residents. Need for increased education.
- Developing community buy-in can be a lengthy process.
- TDR requires increased administrative resources for its creation and management.
- Structuring TDR as a voluntary program can minimize the overall effectiveness of its regulatory capabilities.
- Creating a strong market for development rights is difficult.
Additional TDR Resources


Clearing House of TDR Resources (Overview, Tool, Municipality Examples, assessments, and market analyses), http://www.commerce.wa.gov/site/1308/default.aspx


NON-REGULATORY TOOLS: AGRICULTURAL PRESERVATION RESTRICTIONS

Non-regulatory land use tools and techniques are methods for public and private entities to manage and control land bilaterally, without resorting to unilateral restrictions on private property such as zoning and subdivisions. This section introduces two non-regulatory methods municipalities can use to acquire and preserve rural and urban agricultural lands. It also highlights some of the benefits private landowners, public agencies, and nonprofit organizations acquire when pursuing these techniques.

Purpose of Agricultural Preservation Restrictions

The main purpose of Agricultural Preservation Restrictions (APR) is to protect agricultural land by adding to a state’s agricultural resource base. Also referred to as Conservation Restrictions or Easements, APRs are voluntary legal agreements entered into between a landowner and a qualified conservation organization or government entity (municipal, county, or state). APRs offer landowners of prime agricultural land a non-development alternative to retain ownership, while placing limitations on the land’s development through a tailored deed restriction between the owner and second party. This restriction remains in perpetuity and is binding on both present and future owners of the property (MDAR 2011). The APR program in Massachusetts is administered by the Department of Agricultural Resources and authorized under General Laws of Massachusetts (Mass. Gen. Laws Ch. 184, §§ 31 to 33).

APR and Food System Planning

Participation in Massachusetts’ APR program allows towns and cities to meet both conservation and economic development priorities through the protection of agricultural lands. In most communities, if a municipality and a landowner are in agreement on the conservation restrictions, APR funding is available to offset the costs of protecting working farmland. To become eligible for these funds, municipalities must:

- demonstrate a commitment to agriculture in their planning and development objectives;
- have a minimum of 400 acres of agricultural land base in active use;
• meet minimum soil requirements; and
• provide a financial match, dependent on municipality’s farm-land protection history (MDAR 2011).

Benefits
• APR programs have been an effective method protecting farmland and keeping the land affordable and accessible to farmers. As of 2011, over 67,000 acres of productive farmland have been permanently protected, and well over 162 cities and towns in Massachusetts have APR protected farms (Bowell and Coffin 2009; MDAR 2011).
• The state-administered APR program also offers to pay landowners the difference between the “fair market value” and the “agricultural value” of their farmland in exchange for the permanent restriction. This equity can be reinvested back into the farmland, minimizing the pressures to sell the land for development.
• While landowners can continue to own and farm the land, they also have the option to permanently donate or sell the agricultural restriction to a nonprofit conservation organization or municipality for state, federal, and estate tax benefits.
• APR farmland provides affordable farmland to farmers looking to start or expand their farming business. This is crucial, especially in areas that have high land values.

In addition to APR, the Massachusetts Department of Agricultural Resources (MDAR) created the Agricultural Improvement Program (AIP) to enhance the APR program. This program offers APR participants technical and business planning assistance, as well as eligibility for AIP grant funding (MDAR 2011).

Limitations
Rising land values have reduced APR programs’ rate of protection.
• In Massachusetts the rate of protection has decreased by 18%, costing $172.5 million to protect 11.8% of land in farms.
• Depending on the state, conservation restriction programs have varying criteria for a landowner to benefit in both payment and tax savings.

In Massachusetts farms must be at least 5 acres in size, have been actively used for agriculture for 2 previous tax years, and have gross sales of $500 per year for the first 5 acres, plus $5 for any additional acre.
• APR approvals can be limited based on the suitability and productivity of the agricultural land, as well as the degree in which the land is economically viable for agricultural purposes (MDAR 2011).

Additional APR Resources
SUPPORTING APR AND TDR PROGRAMS: LAND TRUSTS

A Land Trust is a private corporation, non-profit organization, or public entity that aims to permanently protect land and its resources for public benefit. Historically land trusts have been in existence since the 1890s, but have gained popularity over the past 25 years (LTA 2008). They vary in scope and scale, some operating on the national scale, while others focus statewide or locally.

Land trusts involve a bilateral agreement whereby one party (the trustee) agrees to hold ownership of real property for the benefit of the landowner (the beneficiary). Land can be held by a land trust in perpetuity by two methods: purchasing or accepting donations of conservation easements and land. Either method is acceptable, and both purchases and donations are commonly used practices for protecting and conserving land (National Land Trust Census 2010). Some trusts are also involved with monitoring easement restrictions and providing technical assistance to government entities or private buyers looking to buy and protect land.

Land Trusts and Food System Planning

As the demand for more local and healthy food increases, having farmland to support this demand is vital. Land trusts can be a powerful non regulatory tool in securing and preserving rural and urban agricultural land.

What can Municipalities do?

Private, non-profit land trusts usually form when a community group or engaged group of citizens is interested in restricting particular land uses for preservation. This was the case in the 1980s when residents, city agencies, and nonprofits in Providence, Rhode Island organized around the economic and environmental decay occurring in their neighborhood. This sparked the idea for preserving and transforming 55 acres of vacant land into safe, open space to grow food. Today the Southside Community Land Trust serves over 8,500 residents through youth education programs, workshops and land for farming (SCLT 2012).

Municipalities can perform functions similar to a private land trust, as permitted by state laws involving conservation restrictions. Municipal land trusts are typically based on the municipal priorities and goals set forth within a town or city’s comprehensive or general plan. Often, a municipal land trust will partner with other private or non-profit organizations to ensure collective success in preserving rural and urban agricultural lands. These partnerships allow a municipality to increase the amount of funding and technical support available for land preservation.
**Benefits**

- Land is protected in perpetuity, securing land tenure for urban gardeners and farmers
- Interests in a land trust cannot be partitioned
- Tax advantages to owner and his or her heirs such as income tax deduction, estate tax benefits, reduction in property taxes, and charitable gift deduction

**Limitations**

- Ability to purchase, monitor and enforce preservation strategies is often dependent on grants, foundations, private contributions and membership fees

**Additional Land Trust Resources**

Land Trusts from the Land Trust Alliance  
http://www.landtrustalliance.org/

American Farmland Trust, Farmland Protection  
http://www.farmland.org

**HEALTH CODES**

Health codes are another legislative tool municipalities can use to support local food systems.

It is important to ensure that products produced in and sold from residential kitchens and food sold at farmers’ markets in your municipality meet applicable state health standard regulations. Please see Section 8: Health Codes for Residential Kitchens and Farmers’ Markets for more information.


SECTION REFERENCES


Section 7 cover photo by United States Department of Agriculture (http://www.flickr.com/people/usdagov/)
EIGHT:

Food Systems Project Guides
WHAT IS A COMMUNITY KITCHEN?

Shared-use community kitchens are licensed facilities structured to enable small and start up food businesses to prepare lightly processed and value-added products for legal sale at minimal cost. Also called kitchen incubators, these spaces offer a regulated kitchen environment where users may rent space and time to prepare their product. Community kitchens may be for profit or nonprofit enterprises, and may be a distinct operation or one part of the mission of a larger organization. Unfortunately many operators face tough challenges including: high utility bills and operation costs; complex administrative coordination of scheduling and facility rental; frequent time-consuming inspections; and difficulties in gauging long-term demand (Miller 2007). Research done at the University of Wisconsin-Madison shows that successful community kitchens have clear goals, committed leadership, and solid plans and funding to guarantee long-term profitability (CIAS 2001).

HOW CAN A COMMUNITY KITCHEN BENEFIT YOUR MUNICIPALITY?

Because community kitchen “space and equipment are used by different users at different times throughout the day or week,” costs to users are minimal in comparison to costs to establish an individual facility. Sharing kitchen space reduces initial investment costs to new businesses and minimizes risk in the start-up phase (Hollyer et al. 2000). Shared-use kitchens promote community economic development by providing support for new and existing small businesses through training, technical assistance, business development, facilities, and even financing. Although each user must be licensed appropriately, one benefit to users is that they are not required to maintain federal and state permits, licenses, and certifications for the site itself.

HOW TO GET STARTED:

A shared-use community kitchen could be appropriate as community that currently lacks space for small-businesses to produce value-added products, but that is experiencing a high level of demand for licensed facilities. A high level of community
desire and “buy-in” for a shared-use kitchen is critical to long-term success, and is perhaps the greatest indicator of whether such a facility is right for a particular community. Therefore it is important to gauge interest ahead of time to determine whether demand is high enough to justify cost and kitchen operation.

**Additional Resources:**


Crop Circle Kitchen, Jamaica Plain MA, http://www.cropcirclekitchen.org/

References:


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**ON THE GROUND: WESTERN MASSACHUSETTS FOOD PROCESSING CENTER**


**Mission:** “to promote economic development through entrepreneurship, provide opportunities for sustaining local agriculture, and promote best practices for food producers”

**Services:**
- financing for start up and existing small businesses
- support and training for preserving harvests, manufacture of value-added products; copack services
- technical assistance, business planning and counseling, product development, distribution resources
- facilities support
- professional development
- launched “extended season farm to institution program” 2009 “in order to increase our region’s capacity to lightly processed fruits and vegetables (freezing and canning) in order to make local food accessible year-round”

**Rates:** $600/yr membership fee; $38/hr for production
WHY HEALTH CODES MATTER

It’s important to ensure that products produced in and sold from residential kitchens and food sold at farmers’ markets in your municipality meet applicable state health standard regulations. This may require coordination with your Local Board of Health (LBOH); they generally issue licenses and perform inspections of food establishments, and similarly will license and inspect home-based producers and certain farmers’ market vendors. You can help local producers by connecting them to resources on regulations for food production and sale, or by providing trainings or information sessions on how to get started with a home-based food business.

REGULATIONS FOR HOME-BASED PROCESSING AND PRODUCTION

In Massachusetts, residents are allowed to produce low-risk foods, e.g. cakes, cookies, breads, and jams, in residential kitchens for sale direct to consumers. These businesses must be licensed and inspected by the LBOH.

The Massachusetts Department of Agricultural Resources publishes an in-depth Food Processors Resource Manual which provides substantial information on regulations concerning residential kitchens. It can be found here: http://www.mass.gov/agr/markets/specfood/food_processor_resource_manual.htm

State-level regulations dictate what products may be prepared in residential kitchens, and what conditions are required. For example, only household members may be involved in the operation, and foods may not be sold out-of-state. Additionally, producers must use a standardized recipe, and may be required to submit products for laboratory analysis.
Some items cannot be prepared and sold from residential kitchens. These include:

- Potentially hazardous foods, e.g. cream-filled pastries, cheesecake, and custard;
- Perishable foods that require refrigeration, e.g. cut fruit and vegetables, BBQ sauce, and pickled products;
- Foods that require state- or federally-controlled manufacturing or packaging processes (e.g. acidification, hot fill, thermal processing in hermetically-sealed containers, etc; jams and jellies are the exception (MDPH FPP 2005).

**ON THE GROUND: Local Residential Kitchens**


- Located in Newton, MA
- Operated by Katharina Elbert, who “After having baked for friends and family for decades... started this bakery business specializing in traditional German baked goods in 2009.”
- Specialties include laugenbrezeln (pretzel), müslisemmel (granola roll), and mandelhörnchen (almond crescent)

Chatham Jam and Jelly Shop, http://www.chathamjamandjellyshop.com/

- Located on Cape Cod in West Chatham, MA
- Operated by Carol Cummings, who has been selling jams and jellies from her home since 1983.
- Specialize in preserves made from locally grown fruits including: wild beach plum, beach rose, garden mint, blueberries, and blackberries

**Additional Resources:**

Sources for business, food safety, and technical training related to food processing, http://extension.unh.edu/nefe/training/index.html


REGULATIONS FOR FARMERS’ MARKETS

Farmers’ market vendors selling food products and processed foods other than ‘farm products’ must be licensed as a food retail operation and inspected by their Local Board of Health. Specific farmers’ markets may have additional regulations as well. According to the Massachusetts Department of Public Health’s Food Protection Program (FPP), farm products currently include (MDPH FPP 2011):

- Fresh produce (fresh uncut fruits and vegetables);
- Unprocessed honey (Raw honey as defined by the National Honey Board);
- Maple syrup; and
- Farm fresh eggs (must be stored and maintained at 45°F (7.2°C).

Vendors selling only approved farm products as listed above are exempt from permits through the Local Board of Health. Vendors wishing to sell processed foods such as jams and jellies or baked goods such as breads, pies, and cookies require a retail establishment license and inspection issued by the Local Board of Health.

Massachusetts Food Protection Program guidelines state that “processed food sold at a farmers’ market must be manufactured in a licensed food processing facility, a licensed food establishment, or a licensed residential kitchen” (FPP 2011, RF-08). The FPP’s bulletin on farmers’ markets outlines sanitary regulations at the market, “approved sources” of processed foods, e.g. shellfish, finfish, meat and poultry, raw milk products, and wine, and includes information on regulations regarding temperature control, display conditions, food samples, and product labeling. For more details, locate bulletin RF-08 at http://www.mass.gov/eohhs/docs/dph/environmental/food safety/farmer-market-guidelines.pdf.
FARMERS’ MARKETS: Some regulations of note

- Vendors selling shellfish must obtain approval for sale from both the Division of Marine Fisheries (DMF) and the Food Protection Program;
- Vendors selling finfish and crustaceans must hold a permit with the DMF and be licensed by the Local Board of Health;
- Meat for sale at farmers’ markets must have been slaughtered in a federally inspected facility;
- Raw milk cannot be sold at farmers’ markets, however aged raw milk cheeses made in a licensed food manufacturing facility may be sold;
- Wine may be sold by licensed farm-wineries who have received an event certification from the Department of Agricultural Resources and who hold a liquor license for the specific farmers’ market.
- Food that requires temperature control for safety must be held at proper temperatures in accordance with State and Federal laws during transportation and display.
- Fresh, uncut fruits may be displayed in open air, but must be stored off the ground.
- Cooking demonstrations may be conducted for promotional and/or educational value with prior approval from the Local Board of Health; safe food handling practices are required.
- All packaged foods must be labeled with the common or usual name of the product, a complete list of ingredients and sub-ingredients, name and address of manufacturer, and other critical information.

See the MA Department of Public Health Food Protection Program Report No. RF-08 for additional details.

References:


WHAT IS A HEALTHY CORNER STORE INITIATIVE?

In some communities without adequate access to a full-service supermarket, municipal and community leaders have directed their energies toward improving the quality of food available at local convenience stores. Healthy corner store initiatives have been shown to increase customer purchases of fresh fruits and vegetables and to improve sales of healthy food items at small local businesses (Song et al. 2009; NYC DHMH 2010). Using a combination of technical assistance, financing and outreach, municipal and community leaders have worked with store owners to increase access to healthy foods in underserved communities.

HOW DOES IT WORK?

To improve food equity and health outcomes, a healthy corner store initiative typically addresses two food access issues - healthy food availability, and consumer education. Municipal officials and community leaders identify convenience store owners who are willing to stock certain healthy food items (for example, fresh fruits or vegetables) and provide assistance to store owners in exchange for an agreement to stock healthy food for a specific length of time. In addition, successful healthy corner store initiatives include an outreach and education component that promotes the healthy food items through marketing, coupons, and even taste tests (Song et al. 2009).
ON THE GROUND: Boston Public Health Commission - Strategic Alliance for Health, “Healthy on the Block”

Mission: “To assist corner store owners in [Mattapan and East Boston] in offering healthier options, including higher quality fruits and vegetables, at a reasonable price.”

Requirements: Healthy on the Block items include fresh fruits and vegetables and shelf items that have:

- less than 10 grams of sugar per serving
- at least 2 grams of fiber per serving
- no more than 200 calories per serving

Store owners must participate for at least 6 months, and are responsible for regularly stocking healthy items, implementing marketing materials, and participating in technical assistance training.

Support: Store owners receive marketing materials including banners, labels, stickers, etc. The Strategic Alliance for Health also provides incentives, individual outreach to store owners, and technical assistance on product placement and marketing.

Process: After a community survey in 2009, Healthy on the Block had a public kick-off in April 2011 (Cooper 2011). The Boston Public Health Commission (BPHC) Strategic Alliance for Health, in collaboration with the East Boston Neighborhood Health Center and the Mattapan Food and Fitness Coalition, assessed store owner interest in two target neighborhoods - Mattapan and East Boston. Pilot sites for Healthy on the Block were selected based on the level of store owner interest and their willingness to work with community members. Healthy on the Block began with 5 stores, and as of April 2012 the initiative has expanded to 11 stores in Mattapan and East Boston. While the initiative is still too new for evaluation, its growth in one year is an encouraging sign for healthy food advocates.

For more information, visit http://www.bphc.org/programs/cib/chronicdisease/strategicallianceforhealth/corner-storeinitiative/Pages/Home.aspx
Benefits
When healthy corner store initiatives are embraced by residents and store owners and supported with municipal resources, they can become a stepping-stone to a healthier food environment. Healthy corner store initiatives build on the infrastructure that already exists in a community, and can support municipal economic development goals by revitalizing small local businesses. The municipal investment needed for this type of initiative is relatively modest, especially when compared to the time, money, and energy required to build a new supermarket (PolicyLink, n.d.). Healthy corner store initiatives also have the potential to generate opportunities for collaboration across municipal departments (e.g. public health, economic development, and planning) and with community partners.

Challenges
There are challenges to implementing a healthy corner store initiative. Store owners are often reluctant to devote scarce shelf space to perishable items, and healthy foods may have a lower profit margin than snacks like chips and candy. Furthermore, many convenience store owners do not have adequate refrigeration (PolicyLink nd). In short, the risk to store owners is high. Municipal officials can greatly reduce these risks by providing financial assistance for refrigeration, access to training opportunities, and an ongoing partnership with business owners.

HOW TO GET STARTED:
A healthy corner store initiative may be appropriate in a community with a substantial number of convenience stores and limited access to a full-service supermarket. To begin a healthy corner store initiative, it is critical first to get a clear idea of the food retail environment in your community. The CDC has created a Healthier Food Retail Guide that includes many data sources and ideas for how to measure the availability of healthy food in your community (CDC 2010, see also this toolkit’s section on assessment). After determining the need for a healthy corner store initiative, you may want to assess community interest by surveying residents, community groups, and convenience store owners (individually or through a business association). The additional resources listed below include links to helpful organizations, guides, and potential funding sources for healthy corner store initiatives.
**Additional Resources:**

Healthy Corner Stores Network, http://www.healthycornerstores.org/


PolicyLink Corner Store Tool, http://www.policylink.org/site/c.lkIXLbMNJrE/b.7676977/k.9E6C/Corner_Stores.htm


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**References:**


WHAT IS PERI/URBAN AGRICULTURE?

Urban and peri-urban (adjoining urban areas) agriculture refers to the production, distribution and marketing of plants, animals, and ornamentals within the core of metropolitan areas and at its edges (CFSC 2007). The size and scale of urban agriculture can be adapted for large or small contiguous or noncontiguous parcels, rooftops, and porches.

In-soil growing techniques may include raised beds, containers, and greenhouses or hoop houses, though other techniques such as aquaponics or vertical mediums may be used. Food may be grown for personal consumption and education, or for sale or donation.

A BRIEF HISTORY

Urban agriculture isn’t new to the American city. In the late 19th century, high unemployment encouraged both rural and urban dwellers to resort to growing their own food. To ameliorate food shortages during World Wars I and II, over 20 million “Victory Gardens”, were planted by Americans on both private and public land. It has been estimated that these gardens produced an estimated 9-10 million tons of fruit and vegetables, accounting for 44% of the fresh vegetables grown in the U.S. at the time (Reinhardt, n.d.). While the end of the war also meant the end of widespread urban farming, the contemporary urban agriculture movement has been spreading across the nation over the past 40 years.
**Benefits**

- Health: Improves access and affordability to fresh produce; provides moderate physical activity
- Economic Development: Local opportunities for agriculture-based entrepreneurship and employment
- Environment: Diverts waste from landfills to compost; green space mitigates urban heat island effect, provides habitats for native and migratory species; transformation of land remediates vacant, blighted lots
- Education: Offers opportunities for education and life skills development for youth and adults

**Challenges**

- Residential concerns (e.g. odors and noise, potential increase in vermin, effect on neighborhood property values) about allowing certain crops, livestock, and beekeeping
- Current zoning codes: may limit or prevent agricultural activities
- Soil contamination concerns: often not addressed in zoning ordinance
- Waste Management
- Sufficient access to land: can be addressed through land trusts, long term leases, and incentives for farmers to rest or lease

**ON THE GROUND: Common Types of Urban Agriculture**

Micro-Farms: In and around a house /apartment

Community Gardens: Parcels of land, subdivided into small plots, which are farmed by a number of local residents for their own use, not for sale

Urban Farms: Includes small and large scale farms, cultivated by a farmer or organization for commercial purposes

Keeping of Animals, Animal Husbandry: Livestock, poultry, bees

Aquaponics: Cultivation of fish and plants together in a recirculating water system
WHAT CAN YOUR MUNICIPALITY DO TO SUPPORT URBAN AGRICULTURE?

Cities and towns across the U.S are using urban agriculture to address a range of municipal priorities: from equity, education, and health, to conservation and economic development. While each municipality is unique in designing initiatives to address their specific needs, certain universal steps are important in every case:

*Take An Inventory*

What is currently being done in your municipality? What organizations or community groups are involved in growing food? Your municipality may be able to partner with them to assess the need for additional urban agricultural land. Another great way to get started is to conduct a land inventory, which can help identify available parcels in your community and their suitability for production. Finally, management plans administer the use of sites and are a crucial companion to the site identification process. The data needed for land inventories and management plans should be easily accessible to the community.

*Review Zoning and Policy*

Review current municipal land use policies and zoning codes, and create appropriate regulations that promote and permit urban food production by right, conditional use, special permit, or agricultural district. Zoning codes may unintentionally prohibit agricultural activities; simple changes can make it possible for residents to grow food or keep animals successfully on their properties.

*Develop Institutional Support*

Create a multidisciplinary task-force representing various stakeholders and experts to develop recommendations for urban agriculture. Community engagement and public hearings are crucial, and should be a constant throughout your process. There should be a purposeful connection to those who use the land, own the land, regulate the land, and who benefit.
References:


Additional Resources:

Seeding the City: Land Use Policies
http://www.phlpnet.org/childhood-obesity/products/urban-ag-toolkit

Urban Agriculture Policy Inventory
http://norcalheal.cnr.berkeley.edu/docs/CommunityGardenPolicyInventory_PHLP.pdf

Brownfield Urban Agriculture Interim Guidelines

Growing Guide
WHY IS SOIL CONTAMINATION AN ISSUE?

Community gardening and urban farming can provide affordable, healthy foods, and additional benefits associated with physical activity, urban green space, and community development. Unfortunately, soil contamination from heavy metals and hydrocarbon based toxins can be an issue in urban soils and may be problematic to human health if not addressed before food is grown (Turner 2009). Backyard soil should be tested and remediated as needed using biological or physical methods. Contaminant remediation may be cost prohibitive; a common alternative is to build raised beds and to import new, clean soil.

WHAT ARE THE SOURCES OF SOIL CONTAMINATION?

The potential for soil contamination in urban areas is evident due to the historical prevalence of land use for gas stations, junk yards, and other industrial operations. Though industrial contaminants on these and other brownfield sites vary, the greatest concern for urban farms and gardens is contamination from lead. Most urban properties are contaminated from lead-based paint and leaded gasoline, and risks to children are high. The greatest dangers of lead to human health are actually through unintentional consumption of contaminated soil or dust; a problem especially for children who may frequently play in urban backyards. rather than as a result of uptake of lead by edible plants (Rosen 2002). Though plants may take in some lead from the soil, health risks to humans from consumption of edible plants grown in leaded soil is relatively minimal.
WHAT CONTAMINANT LEVELS ARE ACCEPTABLE?

While soil for urban agriculture should ideally not have contaminants beyond natural levels, standards of what is considered safe are unclear. Currently, federal, state, or local regulations are nonexistent when food is grown for personal use or sale.

The U.S Food and Drug Administration (FDA) and U.S Department of Agriculture regulate material applied on farm land for food safety, but do not have regulations regarding the quality of soil for growing fruits and vegetables. Furthermore, the EPA has set industry standards for environmental contaminants, but lists only standards, not requirements. In 2011, the EPA Brownfield Program provided interim guidelines for urban agriculture; these cover soil safety practices for brownfield remediation and reuse (EPA 2011a).

ON THE GROUND: Soil Safety General Practices

Review the history of the site and surrounding areas using the local town or city registry

Send a soil sample to a soil testing laboratory (e.g. University of MA Soil and Plant Tissue Test Laboratory)

Build raised beds on soils that are contaminated

Avoid pressure treated wood for constructing raised beds; they are usually treated with chemicals such as copper, chromium, or arsenic

Wash hands and other exposed skin that come in contact with soil

Prevent children from eating soil or playing in contaminated soil; keep soil outdoors

Wash produce thoroughly to remove soil particles
HOW CAN MUNICIPALITIES ADDRESS SOIL SAFETY?

Municipalities can provide residents and community groups with soil safety best practices. Information can be documented and provided using online and offline methods. Below is a summary of soil safety strategies that municipalities can use to support urban gardeners and other stakeholders when considering soil contamination risks and implementing strategies to reduce exposure.

Soil Testing

Lead levels and the level of major soil nutrients can be analyzed by the UMass Soil and Plant Tissue Test Laboratory for a fee of $10. This test is useful for lead, however, it doesn’t test for other contaminants such as hydrocarbons, PCBs, pesticides, arsenic or mercury. Other laboratories can be contacted for a more comprehensive soil contamination analysis, but are usually more expensive ($100+) and therefore cost-prohibitive to some.

Soil Remediation

Biological remediation mainly involves phytoremediation. This method requires multiple growing seasons where plants are used to remediate soil, but provides a long term solution to the problem. While it is a proven strategy to reduce contaminant exposure, it can take years and may be very expensive (EPA 2011a).

Physical remediation may include excavation or soil washing. Soil excavation is the most effective method, but this process of physical removal also discards valuable topsoil. Soil washing is similar to excavation, however it returns the soil back to the ground after treatment. Both of these methods are prohibitively expensive, plus the removal process raises additional concerns about disposal of the contaminants (EPA 2011a; Turner 2009).
Alternatives to remediation

A common solution to avoid contamination and the prohibitive costs associated with remediation is to build a raised bed and to place a geotextile barrier between imported and native soil. A geotextile is a synthetic blanket-like material that provides an impermeable barrier to remaining contaminants that could migrate to new soil (Turner 2009). It is important that even soil in raised beds be tested to determine its toxicity and nutrient levels. Additionally, gardeners and farmers can use container gardens, green walls, rooftop spaces, and aquaponic techniques to grow food (EPA 2011a). Each of these strategies avoids the issue of soil contamination by using imported soil as a growing medium.

Additional Resources:

CDC, Contamination/Sources of Contamination: http://www.atsdr.cdc.gov/

Raised Beds: http://thefoodproject.org/build-a-garden


UMass Soil Testing: http://www.umass.edu/soiltest/

Lead Hazards: http://www.sfdph.org/dph/files/EHSdocs/ehsCEHPdocs/LeadHazardUrbanGardening.pdf

References:


WHAT ARE FOOD HUBS?

One of the main obstacles to developing local and regional food systems is the lack of scale-appropriate infrastructure. Food hubs are organizations and businesses designed primarily to serve local and regional producers by “actively managing the aggregation, distribution, and marketing of source-identified food products... for the purpose of strengthening producer capacity and access to wholesale, retail, and institutional markets” (WCWI 2012). The core services of each food hub will vary—some may aggregate and distribute food products packaged on-farm; others play the role of packing house, “handling raw produce immediately after harvest and preparing it for delivery to customers” (FamilyFarmed.org et al. 2012, 7).

WHAT MUNICIPAL PRIORITIES DO FOOD HUBS ADDRESS?

While Food Hubs generally operate as independent businesses or nonprofit organizations, they connect to multiple municipal activities and priorities. Food hubs are part of a growing business sector and can contribute to municipal economic development by creating jobs and increasing tax revenue. Because they often operate at a regional scale, the process of establishing and supporting food hubs provides opportunities for collaboration within a municipality and between it and neighboring towns and cities.

ON THE GROUND: Food Hubs in action

Blue Ridge Produce Company (Elkwood, VA) is a for-profit packing house and aggregator for local produce in its region. The company works with approximately 40 growers and with institutions such as grocery stores, hospitals, and conference centers to bring regional produce to the Washington, D.C. metropolitan area. www.blueridgeproduce.net
WHERE ARE FOOD HUBS LIKELY TO BE SUCCESSFUL?

Building Successful Food Hubs provides a list of characteristics of locations that might be appropriate for a food hub:

- Evidence of strong commercial demand for locally-produced goods;
- Presence of large groups of suppliers and buyers;
- Active entrepreneurial investigation;
- Sufficient pool of qualified management candidates; and a

HOW TO GET STARTED

Starting a food hub is similar to starting any other business. Entrepreneurs can follow the processes outlined in the Building Successful Food Hubs guide and other resources below. Municipalities can promote and initiate food hub development by offering tax breaks or other financial incentives to food hubs in the start-up phase. They can also work in collaboration with neighboring municipalities to identify priority areas for infrastructure development.

Some food hub organizations are structured as a public-private partnership. In those cases, the municipality plays a more active role by providing land, buildings, equipment, and/or start-up funding to the business. A feasibility study is a good first step for identifying and assessing the needs within a community, and the potential impact of a food hub on public needs.

Additional Resources: Many organizations and agencies are partners in the National Food Hub Collaboration.

The National Good Food Network (NGFN), runs an online “Food Hub Center” that offers research and resources, archived NGFN webinars, a database of consultants, a links to funding sources, and a list of all the working food hubs in the United States. http://ngfn.org/resources/food-hubs/food-hubs

The USDA’s Agricultural Marketing Service (AMS) provides news and research on food hubs, as well as links to other sources of food hub-related information. http://www.ams.usda.gov/AMSv1.0/FoodHubs


References:


PROJECT GUIDE: FARMERS’ MARKETS
FOOD SYSTEM SECTOR: Consumption
MUNICIPAL PRIORITIES: Economic Development, Equity, Education

ADDRESSING MUNICIPAL PRIORITIES WITH FARMERS’ MARKETS

Consumer interest in purchasing and eating local foods continues to grow, and farmers’ markets offer an exciting opportunity to increase access to fresh, healthy food in municipalities across the country. Because farmers’ markets require less investment than new supermarkets and can devote far more space to healthy foods, they are sometimes a preferred option for municipalities that are trying to improve food access and health (Obadia 2011). According to the USDA National Directory of Farmers’ Markets, the number of farmers’ markets in the United States has more than quadrupled since 1994. The most recent estimates from 2011 count over 7,000 farmers’ markets in the U.S. (AMS 2012). Sales from farmers’ markets account for over $1 billion annually (Martinez et al. 2010).

WHAT IS A FARMERS’ MARKET?

The USDA defines a farmers’ market as “a common area where several farmers gather on a recurring basis to sell a variety of fresh fruits, vegetables, and other farm products directly to consumers” (Martinez et al. 2010, 5). Most farms that participate in farmers’ markets are small, grossing under $50,000 in annual sales. Markets take place in many different types of communities, but are generally more common in densely populated urban and suburban communities. Furthermore, the vast majority of farmers’ markets are seasonal, operating for 6 or fewer months each year (Ragland and Tropp 2009).
Benefits

- Improve resident access to healthy foods
- Provide revenue for small farmers
- Increase foot traffic to businesses near the market
- Create opportunities for community education about health and wellness

Challenges

- Struggle to retain vendors if overall market revenue is low
- Issues maintaining high customer turnout, especially for new markets
- Rely heavily on volunteers – only 39% of markets had a paid manager in a recent survey
- Difficulty complying with local and state regulations

Benefits and Challenges adapted from Obadia 2011, Ragland and Tropp 2009

HOW TO GET STARTED:

A farmers’ market can be a great way to increase food access and promote health in many different types of communities.

The Massachusetts Department of Agriculture (MDAR) has an excellent guide to starting a farmers’ market, accessible at http://www.mass.gov/agr/markets/farmersmarkets/Start_a_market.htm. The first step for most farmers’ market organizers is to gather together a group of interested community members to define the goals of the market, do preliminary market research, and choose a location and time (MDAR 2012).

The additional resources listed below are a good place to begin if you are looking for information about how to start a market or the kinds of regulations that apply to farmers’ markets.
About 30% of farmers’ markets in the U.S. have been in operation for less than 5 years. The Northeast has a higher proportion of markets that have been in operation for 9 years or less in comparison. On average, farmers’ markets in the U.S. have 31 vendors. In the Northeast, the average is much lower – 18 vendors per market on average:
Additional Resources:

Massachusetts Department of Agriculture
http://www.mass.gov/agr/markets/farmersmarkets/Start_a_market.htm

Massachusetts Federation of Farmers’ Markets
http://www.massfarmersmarkets.org/FMFM_Main.aspx

USDA Agricultural Marketing Service
http://www.ams.usda.gov/AMSv1.0/FARMERSMARKETS

Massachusetts General Laws: Specific to public markets
http://www.masslegislature.gov/Laws/GeneralLaws/PartI/TitleVII/Chapter40/Section10

References:


MUNICIPAL WASTE MANAGEMENT & COMPOSTING

Municipalities devote a significant portion of their resources to managing the waste produced by their residents, businesses, and institutions. In 2010, the United States generated approximately 250 million tons of Municipal Solid Waste (MSW) (EPA 2011b). MSW is made up of materials such as product packaging, yard clippings, computers, paper, and food scraps (EPA 2011b). The organic materials in MSW can be recovered from the waste stream through composting. Composting is a controlled form of decomposition that transforms organic waste matter into a nutrient-rich product that can be used to remediate, fertilize, and replenish soil.

In 2010, organic material (paper, yard clippings, wood, and food waste) comprised 62% of the total MSW (EPA 2011b); 13.9% of that organic matter was food waste. Though most municipalities have systems in place for composting or recycling paper, wood, and yard clippings, similar systems for food waste are much less prevalent. Of the 34.76 million tons of food waste generated in 2010, only 2.8% (0.97 million tons) was composted (EPA 2011b).

When organic matter is sent to landfills with non-organic waste, it decomposes anaerobically and produces methane, a harmful greenhouse gas (Pierce-Quinonez 2011). Municipalities can reduce the proportion of food waste and other organic material that is sent to landfills by implementing a municipal composting program for institutional and residential waste, and by supporting residential composting.

ORGANIC WASTE MANAGEMENT IN MASSACHUSETTS

Massachusetts currently bans some organic waste (leaves, yard trimmings, and recyclable paper products) from its MSW, and supports municipal efforts to reduce overall waste through the Sustainable Materials Recovery Program
Municipal Grants offered by the Massachusetts Department of Environmental Protection (MassDEP 2012c). Communities can apply for funding and equipment “to support recycling, composting, household hazardous products (HHP), and mercury diversion programs at the local and regional levels” (MassDEP 2012a, n.p.).

Massachusetts has set ambitious goals for waste reduction across the state: the Solid Waste Master Plan 2010-2020 calls for a 30% reduction (2 million tons) by 2020 and 80% reductions by 2050 (MassDEP 2011). MassDEP has recognized that municipalities will not be able to reach those targets without increased recycling and composting infrastructure and support for programs that will increase the amount of organic waste diverted from the main waste stream. To that end, MassDEP and the Organic Capacity Task force have drafted Building Capacity for Managing Organic Materials in Massachusetts: Proposed Regulation Amendments. These amendments will significantly expand the state’s capacity to process organic materials separate from the rest of the waste stream, through recycling and composting (MassDEP 2012b).

**ON THE GROUND: Starting a municipal composting program**

1. Identify goals of the composting project.
2. Identify the scope of the project—backyard, yard trimmings, source-separated, mixed MSW, or a combination.
3. Get political support for changing the community’s waste management approach.
4. Identify potential sites and environmental factors.
5. Identify potential compost uses and markets.
6. Initiate public information programs.
7. Inventory materials available for composting.
8. Visit successful compost programs.
10. Finalize arrangements for compost use.
11. Obtain necessary governmental approvals.
12. Prepare final budget and arrange financing.
13. Construct composting facilities and purchase collection equipment, if needed.
Benefits
- Composting reduces organic material in waste stream and reserves landfill space for non-compostable and non-recyclable materials, and reduces a municipality’s greenhouse gas emissions.
- Compost products can be used to prevent erosion, enrich and remediate soils, and for stormwater management.
- Composting cuts municipal costs by reducing their need for fertilizer, water, and pesticides on public properties.
- End products can be sold to users such as farmers, gardeners, schools, parks, golf courses, and landscapers; increases municipal revenue (O’Leary and Walsh 1995; EPA 2012a; USCC 2008; 2012).

Challenges
- Composting programs require adequate markets and uses for the end product.
- Standards for finished composts are inadequate or non-existent.
- Many municipalities lack experienced designers, vendors, and technical staff.
- Composting programs face potential problems with odors and contaminants (O’Leary and Walsh 1995). Note: Restricting meat from food scrap collection can cut down on odor and pest issues, but will make participation and compliance harder as residents will have to sort their food waste before disposing.

Types of Compost Collection Programs

For yard trimmings
- Curbside collection
- Street collection (vacuum trucks/trailers)
- Drop-off locations

For food scraps
- Curbside collection with yard waste
- Curbside collection separate from yard waste
- Drop-off center collections

Strategies for Success
- Introduce the program to community members by offering composting at special events and providing education materials to participants.
- Target large waste generators such as grocery stores, restaurants, and universities and other institutions to make a significant impact on the municipal waste stream.
Additional Resources:

The University of Maine Cooperative Extension's Compost School, http://www.composting.org/
EPA Composting Links http://www.epa.gov/osw/conserve/rrr/composting/links.htm

References:


Section 8 cover photo by Ron Francis, Natural Resources Conservation Service, United States Department of Agriculture.
References
Abi-Nader, Jeanette, Adrian Ayson, Keecha Harris, Hank Herrera, Darcel Eddins, Deb Habib, Jim Hanna, Chris Paterson, Karl Sutton, and Lydia Villanueva. 2009. Whole Measures for Community Food Systems: Values-Based Planning and Evaluation. Mad River Valley, VT: Center for Whole Communities.


Ajayi, Jesse, Catherine Denson, Brendan Heath, and Kimberley Wilmot. 2010. 2010 Toronto Food Sector Update. Toronto, Canada: University of Toronto.


Stringer, Scott M. 2010. FoodNYC: A Blueprint for a Sustainable Food System. NYC, NY: President of the Borough of Manhattan NYC.


Unger, Serena and Heather Wooten. 2006. A Food Systems Assessment for Oakland, CA: Toward a Sustainable Food Plan. Oakland, CA: Oakland Mayor’s Office of Sustainability, University of California, and Berkeley Department of City and Regional Planning.


agricultural commission (AgCom): one type of food systems group that focuses on agriculture and the production sector of the food system; usually operates at the local level in rural areas and communities with significant agricultural history

Agricultural Preservation Restriction (APR) (conservation restriction/easement): voluntary legal agreement between landowner and conservation organization or government entity designed to restrict land for agricultural purposes; landowner retains ownership

brownfield: a former industrial or commercial site where reuse or development is complicated by the real or perceived presence of hazardous substances, pollutants or contaminants

community garden: an area of land designated for the growth and harvest of food crops and/or non-food, ornamental crops, e.g. flowers. Land may be divided into individual plots or may be farmed collectively.

compost: organic material created by combining organic wastes (e.g. yard trimmings, food wastes, manures) in proper ratios to facilitate biological composition; used to enrich soil with essential nutrients

comprehensive plan (or master plan): a document that provides a municipality with a framework for social, economic, and physical public policy; typically outlines long-range community needs and guides growth and development

consumption: activities and processes by which a society acquires and uses food material

cosumption: activities and processes by which a society acquires and uses food material

conventional food system: focuses on global food production and distribution; emphasis on industrialization to increase efficiency of production.

farm-to-institution: program that connects farmers with institutions including hospitals, schools, and correctional facilities who wish to purchase and serve fresh, locally grown produce

farmers’ market: place where farmers sell their products directly to consumers, often weekly in a public outdoor space

food hub: facility that works to aggregate/store local produce, prepare/process regional foods, and broaden distribution opportunities for small and midsize farmers, increasing their ability to access markets

Food Policy Council (FPC): one type of food systems group that most often addresses issues from an urban consumer and environmental social justice perspective; usually operates at the state and local/county level

food security: sufficient availability of and access to food to meet all people’s dietary needs and food preferences

food system: all the activities involved in production, processing, distribution, and consumption of food, and in the management of food waste.

food system assessment: a tool used to catalog and understand the current state of a local food system as the first step toward improvement

greenhouse: a structure enclosed in glass or another transparent mate-
hoophouse: a greenhouse-like structure constructed from flexible piping covered with semi-transparent plastic; enables extension of the growing season in colder climates

land trust: a private, non-profit organization or public entity that works to permanently protect land and its resources for public benefit

local food system (or regional food system): focuses on food security, self-reliance, and sustainability; emphasis on supporting a neighborhood, city, county, or region

MAPC (Metropolitan Area Planning Council): Regional Planning agency focused on metropolitan Boston; region consists of 101 cities and towns in metropolitan Boston, divided into four community typologies

open space zoning: zoning designed specifically to protect undeveloped land; sub-districts can be created

peri-urban/urban agriculture: Urban and peri-urban (between urban and rural) agriculture refers to the production, distribution and marketing of plants, animals, and ornamentals within the core of metropolitan areas and at its edges

production: cultivation of edible plants and livestock

processing: transformation of food into food products

distribution: transportation, storage, and marketing of food from farm to consumer.

rain barrel: container used to collect and store rain water runoff to be used for watering gardens and for other uses

raised beds: a wooden frame constructed on the ground; contains imported, clean soil and compost for growing edible plants

right to farm by-laws (nuisance laws): designed to protect existing farmers by denying abutters and/or the public the right to file nuisance lawsuits for farming practices allowable by law

stakeholder: individual, group, and/or organization with a specific interest in a

stakeholder analysis: process of “mapping community resources” to identify potential community partners and/or supporters

Transfer of Development Rights (TDR): technique under which development rights can be severed from a tract of land and sold in a market transaction; land with rights removed is restricted permanently under a non-regulatory conservation easement

waste management: collection, sorting, processing, and conversion of food waste into compost or diversion to a landfill

zoning: regulatory mechanism that regulates the use of land and controls the physical aspects of property development; common euclidian zoning districts include residential, commercial, agricultural, open space, and industrial

zoning overlay: a regulatory tool created to superimpose a special zoning district over an underlying district, often to protect a specific resource or to guide a particular use.
RECOMMENDATIONS FOR CLF VENTURES

After speaking with municipalities and working to develop this toolkit, we recommend that CLF Ventures:

Allocate staff time and financial resources to develop their internal capacity for food systems consulting. Municipalities will be looking to CLF Ventures for expertise and guidance. This requires staff who are well versed in the latest food systems concepts.

Monitor new information and development trends. Food systems planning is a new and continually changing field; up-to-date knowledge is vital to developing services that will best serve municipalities.

Perform further research to expand upon the successes, challenges, and opportunities of food systems development in Eastern Massachusetts. We highly recommend CLF Ventures survey more/all municipalities in the MAPC region.

Consider translating this toolkit to a web-based format. The modular and non-linear design of the toolkit may be best implemented in a web-based publication format to ease access and navigation. This web based format may include “teasers” in the form of fact sheets, briefs, or case studies.

Form strategic funding partnerships before seeking funding. Although municipalities may be interested in food systems consultative services, they may have little to no resources available to initiate food systems projects.
Memorandum of Understanding
between
Tufts University Field Projects Team No. 5
and
CLF Ventures

I. Introduction

Project (i.e., team) number: 5
Project title: Tools for Strengthening Local Food Systems
Client: CLF Ventures

This Memorandum of Understanding (the “MOU”) summarizes the scope of work, work product(s) and deliverables, timeline, work processes and methods, and lines of authority, supervision and communication relating to the Field Project identified above (the “Project”), as agreed to between (i) the UEP graduate students enrolled in the Field Projects and Planning course (UEP-255) (the “Course”) offered by the Tufts University Department of Urban and Environmental Policy and Planning (“UEP”) who are identified in Paragraph II(1) below (the “Field Projects Team”); (ii) CLF Ventures, further identified in Paragraph II(2) below (the “Client”); and (iii) UEP, as represented by a Tufts faculty member directly involved in teaching the Course during the spring 2012 semester.

II. Specific Provisions

(1) The Field Projects Team working on the Project consists of the following individuals:

1. Joanna Hamilton
2. Hannah Kohut
3. Jenny Molina
4. Meaghan Overton

email address:
(2) The Client’s contact information is as follows:

Client name: CLF Ventures
Key contact/supervisor: Jasmine Tanguay, Associate Managing Director
Email address: [REDACTED]
Telephone number: [REDACTED]
FAX number: [REDACTED]
Address: CLF Ventures, Inc., 62 Summer Street, Boston, MA 02110
Web site: www.clfventures.org

(3) The goal/goals of the Project is/are:

Refine the tools that municipal governments, planners, and community stakeholders can use to support the development of localized food systems.

More specifically, the project team will:

- Evaluate the needs of local officials
- Research issues of stakeholder concern
- Document existing efforts and review case studies past, present and planned local agriculture initiatives
- Determine the resources necessary for establishing successful agricultural commissions and food policy councils at the local level
- Explore methods for mitigating negative impacts and maximizing community benefits
- Identify opportunities for ongoing engagement

(4) The methods and processes – including the methodologies -- through which the Field Projects Team intends to achieve this goal/ these goals is/ are:

Interviews:
- Interview stakeholders in food systems planning (planners, local government officials, food policy council and agricultural commission members, etc.) to learn about their experiences with food systems planning, and what tools and support they need to begin or continue local food systems initiatives.
- Include a diverse representation of experience with local food systems planning and initiatives

Literature review:
- Investigate successful (and unsuccessful, and in-progress) food systems development in communities
- Identify high-priority issues around urban agriculture and common methods used to mitigate community or municipal concerns

Content analysis:
- Examine media coverage of urban agriculture to determine the highest priority issues
- Supplement findings of content analysis with interview data from BRA representatives and other planners; validate data in relation to Boston's Pilot Urban Agriculture Program experience

Document design:
- Infographics and additional visual materials in support of Project components, including 5 fact sheets and process guide
- Potential GIS mapping as needed

(5) The work products and deliverables of the Project include:

1. **Five issue sheets:** These will summarize the above research on high-priority stakeholder concerns and present credible information written for an audience of stakeholders and local leaders. Topics, for example, might include best-practices for odor/vermin management; public access to local agricultural lands, and property values—fact vs. fiction; or ensuring that local food is safe food.

2. **Process guide for project developers and community leaders:** The information gathered in the case studies will be combined with the Client's existing materials and knowledge, and summarized in a mini-guide providing project developers and community leaders with best practices for engaging the community in the process of siting and sustaining local agriculture. Possible topics include: defining the community stakeholder processes, developing the community engagement plan, addressing the NIMBY challenge, ensuring community benefits, and creating strategies and tools for community outreach.

3. **A local food policy "rapid assessment" curriculum:** The Field Projects Team will develop and compile materials that could be adapted for customized informational/training sessions with local officials and community leaders in interested communities across eastern Massachusetts and beyond. Rapid assessment would examine a community's food- and agriculture-related policies and programs, and recommend appropriate actions.

4. **Ongoing outreach strategy:** The Field Projects Team will summarize its recommendations for the type of outreach and technical assistance that the Client could best provide in the future, pending additional project funding.

5. **Presentation:** The Field Projects Team might assist in preparation of a presentation for the Massachusetts Sustainable Communities conference (to be confirmed).

(6) The anticipated Project timeline (with dates anticipated for key deliverables) is:

**February:**

_Tufts Field Projects MOU  spring 2012  Page 3_
Complete gap analysis of food policy literature
Perform content analysis of most common concerns of residents related to food and agricultural issues and rank 5 issues
Proposal due
Develop interview list and questions, have interviews scheduled

**March:**
Interim presentation in class
Complete interviews
Synthesize interview responses
Begin process guide and “rapid assessment” curriculum

**April:**
Develop draft process guide and “rapid assessment” curriculum
Create and design 5 issue sheets

**May:**
Summarize recommendations for outreach strategy
Assemble list of additional resources
Compile documents into final report and presentation

**Key Due Dates:**
Feb 28 - proposal due
March 14 - in class interim presentation
April 6 - draft of all deliverables due
April 20 - potentially present at Mass Sustainable Communities conference
May 4 - completed Project due

(7) The lines of authority, supervision and communication between the Client and the Field Projects Team are (or will be determined as follows):

The primary Client contact and supervisor for the Field Projects Team is Jasmine Tanguay, Associate Managing Director. She will provide direction to the Field Projects Team and monitor the progress of the project.

The primary Field Projects contact for the Client is Meaghan Overton. She will coordinate in-person meetings and will serve as a liaison between the Field Projects Team and the Client.

Dropbox will serve as a central communication tool. Files, summaries, and other documentation will be shared between the Field Projects Team and the Client throughout the project timeline.

(8) The understanding with regard to payment/reimbursement by the client to the Field Projects Team of any Project-related expenses is:
The Field Projects Team will be reimbursed for project-related expenses up to $100. Expenses will be approved by the Client prior to expenditure.

III. Additional Representations and Understandings

A. The Field Projects Team is undertaking the Course and the Project for academic credit and therefore compensation (other than reimbursement of Project-related expenses) may not be provided to team members.

B. Because the Course and the Project itself are part of an academic program, it is understood that the final work product and deliverables of the Project (the "Work Product") – either in whole or in part – may and most likely will be shared with others inside and beyond the Tufts community. This may include, without limitation, the distribution of the Work Product to other students, faculty and staff, release to community groups or public agencies, general publication, and posting on the Web. Tufts University and the Field Projects Team may seek and secure grant funds or similar payment to defray the cost of any such distribution or publication. It is expected that any issues involving Client confidentiality or proprietary information that may arise in connection with a Project will be narrow ones that can be resolved as early in the semester as possible by discussion among the Client, the Field Projects Team and a Tufts instructor directly responsible for the Course (or his or her designee).

C. The Client may review all research data and notes. The Field Projects Team’s final Project (as presented to the Tufts community) may not be altered by the Client. However, the tools and guides developed as components of the Project may be altered by the Client for future consulting work as needed. When the tools and guides are used by the Client (in printed or presentation form), The Field Projects Team will be acknowledged as contributors.

D. It is understood that this Project may require the approval (either through full review or by exemption) of the Tufts University Institutional Review Board (IRB). This process is not expected to interfere with timely completion of the project.

IV. Signatures

[Signature]
For CLP Ventures
By: Jasmine Tanguay
Date: 2/28/2012
Representative of the Field Projects Team
By: [PRINTED NAME – only one team member’s signature is necessary]
Date: _____________, 2012

Tufts UEP Faculty Representative
By: [PRINTED NAME of the Instructor Working With Your Team]
Date: _____________, 2012
Title: Community-based Agriculture: Tools for Strengthening Local Food Systems

February 27, 2012 | Notice of Action

IRB Study # 1202046 | Status: EXEMPT

PI: Meaghan Overton
Co-Investigator(s): Hannah Kohut, Joanna Hamilton, Jennifer Molina
Faculty Advisor: Penn Loh
Review Date: 2/27/2012

The above referenced study has been granted the status of Exempt Category 2 and 3 as defined in 45 CFR 46.101 (b). For details please visit the Office for Human Research Protections (OHRP) website at: http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.html#46.101(b)

- The Exempt Status does not relieve the investigator of any responsibilities relating to the research participants. Research should be conducted in accordance with the ethical principles, (i) Respect for Persons, (ii) Beneficence, and (iii) Justice, as outlined in the Belmont Report.
- Any changes to the protocol or study materials that might affect the Exempt Status must be referred to the Office of the IRB for guidance. Depending on the changes, you may be required to apply for either expedited or full review.

IRB Administrative Representative Initials: [Signature]

20 Professors Row, Medford, MA 02155 | TEL: 617.627.3417 | FAX: 617.627.3673 | EMAIL: SBER@tufts.edu
Investigator Responsibilities

Research involving human participants involves a myriad of responsibilities.

General Responsibilities:
- To comply with the Code of Federal Regulations regarding the protection of human subjects [http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.htm](http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.htm)
- To protect the rights and welfare of all human subjects and to conduct all research according the IRB approved protocol.
- To retain all data and signed consent documents for at least 3 years beyond the completion of the research.

Consent Responsibilities:
- To ensure that each potential participant understands the nature of the research.
- To ensure that the correct procedures are followed to gain informed consent from each person prior to participation.
- To provide each participant with a copy of the IRB approved consent document unless waived by the IRB.

Education Responsibilities:
- To ensure that all researchers, research assistants and faculty advisors have completed the required CITI training and that the certification is current. Certification is valid for a period of 5 years.

Procedural Responsibilities:
- When submitting to the SBER IRB, be sure to only use the most updated version of the required forms. They will always be posted on the website under ‘forms’.
- To not initiate any changes to the protocol without IRB review and approval, unless it is necessary to eliminate an immediate hazard. Submit the Request for Protocol Modification form.
- To submit to the IRB for continuing review (Request for Continuing Review form) at least 6 weeks prior to the expiration date of the protocol if the research is going to continue past the expiration date.
- To promptly report any unanticipated problems to the IRB. Submit Unanticipated Problem Report form.
- To promptly report any adverse events to the IRB. Submit the Adverse Event Report form.
- To officially close the study once completed. Submit the Request for Study Closure form.

Please refer to the website for additional information:

Feel free to contact us at SBER@tufts.edu or 617-627-3417 for any assistance.

Revised July 2010
Tufts University Office of the Vice Provost
Social, Behavioral, and Educational Research Institutional Review Board (SBER IRB)
Program for the Protection of Human Participants in Research

Faculty Advisor Responsibilities

All faculty advisors who oversee undergraduate and graduate student research have the following responsibilities:

- To complete the required CITI training.
- To ensure that the principal investigator and additional research staff abide by the Investigator Responsibilities.
- To meet with the principal investigator to monitor study progress and ensure that the procedures outlined in the IRB protocol are followed.
- To be available to the principal investigator to supervise and address problems should they arise.
- To arrange for an alternate faculty advisor to assume these duties when unavailable (vacation or sabbatical).
- To overseen the prompt reporting of any adverse events or unanticipated problems to the IRB.

Please refer to the website for additional information:
http://www.tufts.edu/central/research/IRB/main.htm

Feel free to contact us at SBER@tufts.edu or 617-627-3417 for any assistance.

Revised July 2010
IN THE KNOW

BULLETIN OF THE TUFTS SBER IRB MEDFORD CAMPUS
COMMUNICATION

NOTICE OF ACTION IS THE NEW FORMAT FOR COMMUNICATION

The Office of the IRB has been sending letters to notify you of committee decisions. You will no longer receive letters from our office. Instead, you will receive a Notice of Action. This new format is less wordy and more precise. With only one quick glance you will be able to see the status of your application – refer to the table below for an explanation of the four statuses that will be used most often.

<table>
<thead>
<tr>
<th>STATUS</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXCLUDED</td>
<td>The proposed study does not require review by the IRB – it is excluded on the basis that it does not meet either the federal definition for Research or the federal definition for Human Subject Research in 45CFR46.102 d or f.</td>
</tr>
<tr>
<td>EXEMPT</td>
<td>The proposed study meets the criteria for one (or more) of the six categories of exemption as defined in 45CFR46.101 b.</td>
</tr>
<tr>
<td>PENDING</td>
<td>You may not begin conducting research. The protocol has been reviewed by the IRB but there are certain conditions that need to be met before obtaining full approval. The conditions and instructions for meeting the conditions are detailed in the Notice of Action. Your study may not commence until you have received a Notice of Action on which your status is reflected as ACTIVE.</td>
</tr>
<tr>
<td>ACTIVE</td>
<td>Your proposed study has obtained full approval and you may begin conducting research. The Notice of Action specifies if the study has been approved by the convened IRB (full review) or by means of an expedited review and the applicable expedited category. The expiry date is clearly visible, and for ease of reference, the Notice of Action also details the number of participants that have been approved for your study. For continuing reviews the Notice of Action will also detail the number of participants that have been enrolled.</td>
</tr>
</tbody>
</table>

Please bear in mind that just as with the letters, the Notice of Action will only be sent to the Principal Investigator, the Study Coordinator (if applicable) and the Faculty Advisor (if applicable). We do not send notifications to Co-Investigators.