

# Identifying and Addressing the Regulatory Challenges in Expanding the Sale of Fresh, Locally Grown Foods at Farmers' Markets and Licensed Food Establishments

2010 - 2011

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**Big River Farms**

**Centers for Disease Control and Prevention**

**City of Minneapolis Food Businesses and Community Organizations**

**Environmental Public Health Leadership Institute**

**Minneapolis Farmers' Market Association, Managers and Vendors**

**Minnesota Department of Health**

**Minnesota Institute for Sustainable Agriculture**

**National Association of County and City Health Officials**

**North Central Region-Sustainable Agriculture Research and Education**

**Sustainable Farming Association of Minnesota**

**United States Department of Agriculture and Food and Drug Administration**

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## **EXECUTIVE SUMMARY:**

Recent food-borne illness outbreaks involving produce such as spinach, jalapeño peppers and melons has caused the general public to pay more attention to the origin of their foods. They recognize that much of their food is produced and harvested thousands of miles away, which raises food safety and security concerns. Currently, consumers want more fresh food that is produced locally, which means an increased demand at local farmers' markets. Environmental Health staffs, who protect the public health as it relates to food consumption, play a critical role working with farmers' markets. This project addresses the regulatory issues that affect this sudden demand of locally grown foods. State and local regulators, farmer's market vendors and farmers all face regulatory challenges. Each perceives the challenges in a different way.

This farmers' market initiative asks questions and challenges the status quo of all involved in a farmers' market, and suggests it's time for a new way of thinking. This study looks at the barriers and challenges to a safe and productive farmers' market in a systematic way, and from varying viewpoints — ranging from a silo mentality to a partnership/collaborative-thinking model. This project displays the importance of open communication, strength of partnership, leadership, and accountability for all. This project will ensure that the farmers' market managers and vendors have the basic food safety knowledge, training and tools needed to serve the community.

Our cross-functional team is working to improve compliance efforts by building strength in partnership, learning from past mistakes, making progress in compliance rates and increasing collaboration with all stakeholders. This farmers' market project is about creating a local, healthy and sustainable food supply that will positively impact the economy, health, food security and environment within the Minneapolis metro area. Benefits include:

1. **Economy:** Farmers' markets support small farms and local jobs, as well as create new business opportunities.
2. **Health:** Increased consumption of fresh, healthful foods contributes to improved nutrition.
3. **Food Security:** An adequate safe and reliable supply of fresh, local foods can empower restaurants and communities to be more self-sufficient.
4. **Environment:** Local foods grown in a sustainable manner can improve air quality, as well as reduce chemical and water usage.

## **INTRODUCTION/BACKGROUND:**

Recent food-borne illness outbreaks in produce such as spinach, jalapeño peppers and melons increased public awareness of food safety, origin and what they buy from local markets. Consumer demand and local farmers' market initiatives have sprouted the supply of locally grown produce item availability. Demand for locally grown food and farmers' markets also increased due to media coverage of Michelle Obama's White House garden and talk of the health benefits of fresh fruits and vegetables from local community gardens. Currently, the public wants a greater availability of foods grown and produced closer to home. Consumers also recognize that much of their food is produced thousands of miles away and are interested in finding ways to assure greater food safety. The number of farmers' markets present within the city of Minneapolis, Minnesota, has almost tripled since 2008. But the public customer demand is still greater than the current availability of neighborhood market locations. Restaurants, food co-ops and incubator entrepreneurs recognize that consumer tastes have changed. Each is doing its best to meet the economic challenge of keeping up with the additional requests for more menu items from local, sustainable sources. The souring economy has made the public more conscience of its spending and fresh, local produce is seen as a bargain. At the same time, additional state and local grants are now available to promote gardening and small-scale farming at schools, care facilities and within lower-income areas.

It is important for food safety regulators to have a better understanding of the regulatory challenges that the business operators face in growing and offering their fresh, locally grown foods. From this understanding, inspection staffs at the various regulating agencies and the persons that are involved in providing these sustainable food items to the public are better prepared to address change. The intent of this Environmental Public Health Leadership Institute project is to bring positive change and address the Centers for Disease Control's *10 Essential Public Health Services*. This will then lead to support of the national *Healthy People 2010* goals and improve the public health of the residents eating or purchasing safe, fresh, locally grown foods; whether from within the city of Minneapolis or surrounding communities.

### ***Problem Statement:***

Why, despite community health benefits of safe, fresh, locally grown foods are there regulatory challenges in expanding the sale of these products at farmers' markets, grocery stores and other licensed food establishments in the City of Minneapolis?

### **Ways to Create Change:**

Change can only happen if everyone is involved in the open discussions. State and local leaders need to bring cross-functional teams together to discuss the local farmers' market issues. At the state government level, the Minnesota Department of Agriculture markets agriculture to the public and works directly with business owners and farmers through regulation and education practices. Within the City of Minneapolis, the Department of Regulatory Services works with farmers' market managers to review the city ordinances and make changes without compromising the health and safety issues.

By working together as a cross-functional team, that consists of local and state government agencies, policy makers, business operators, various food grower associations and other external customers, the power and impact of teamwork and system thinking learning is effective. As a team, we are better able to learn from each other and build upon our individual strengths, knowledge, abilities and network of contacts. We are developing our ability to think critically and systematically to solve problems. We have documented the current farmers' market application intake process and support flow.

This study identified many limiting factors to the project's success. It has allowed a better understanding of the multiple food system variables that both the regulator and vendors must deal with on a daily basis. In this case, we identified a lack of knowledge on the part of vendors and regulators, lack of regulatory resources, lack of budget and the absence of meaningful educational fact sheets. It was recognized that there was a need to develop two figures/charts relative to the problem statement. The first is a *Behavior Over Time* chart. The second is a *Casual Loop Diagram*. Both visuals identify regulatory challenge gaps or potential key variables of limiting factors.

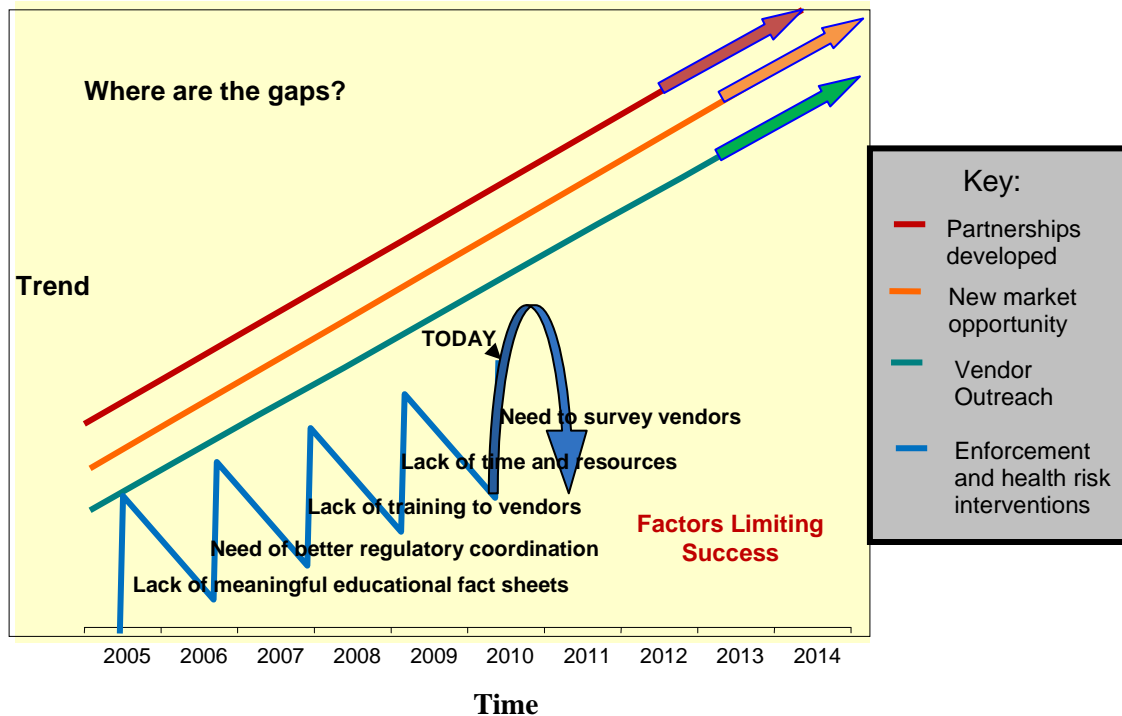


Figure 1: *Behavior Over Time* Graph.

**The Fundamental Issues that Limits this Project's Success:**

1. Need to have a better understanding of farmers' markets through vendor survey (to better develop policy and plans);
2. Lack of time and resources (diagnose and investigate);
3. Lack of training for vendors (assure competent workforce);
4. Need of better coordination between regulatory agencies (mobilize community partnerships);

- Lack of meaningful educational fact sheets for the regulators, businesses and public outreach (informs, educate, empower).

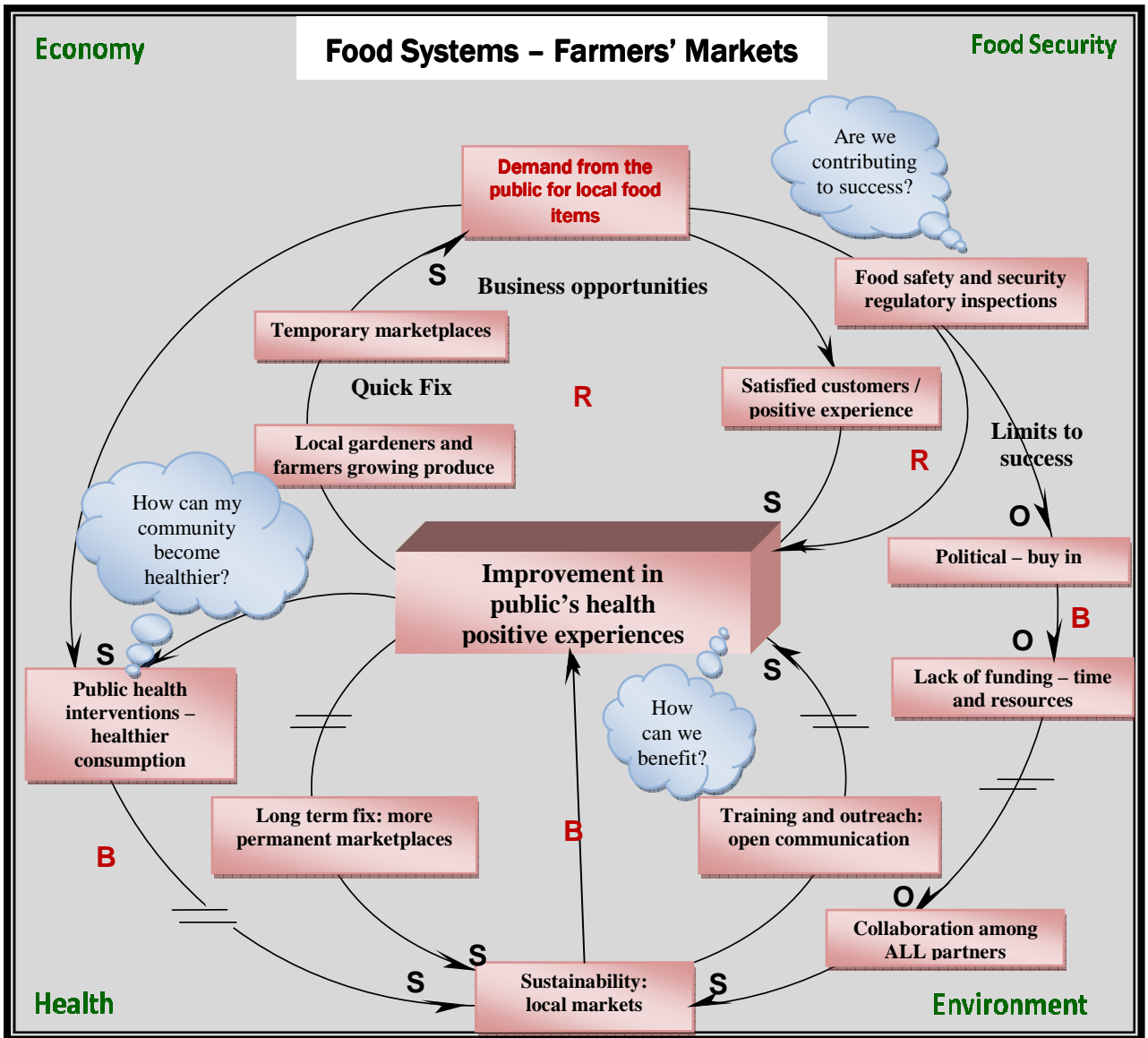


Figure 2: Casual Loop Diagram and “Limits to Success” Archetype

**Key Variables Limiting Success:**

Four different areas were identified that attempt to simplify the complexity of the food systems involved in the offering of safe fresh, locally grown foods at farmers’ markets. Those sectors include: Health, Food Security, Environment and Economy. The diagram shows each sector, their fundamental issues and how they inter-relate to each other. The interior “snowman” diagram identifies the primary, guiding questions. The additional loops from the main body show the multiple contributing factors that are not directly related to each other. These include politics, partnership and training.

**Essential Environmental Health Services involved with this project:**

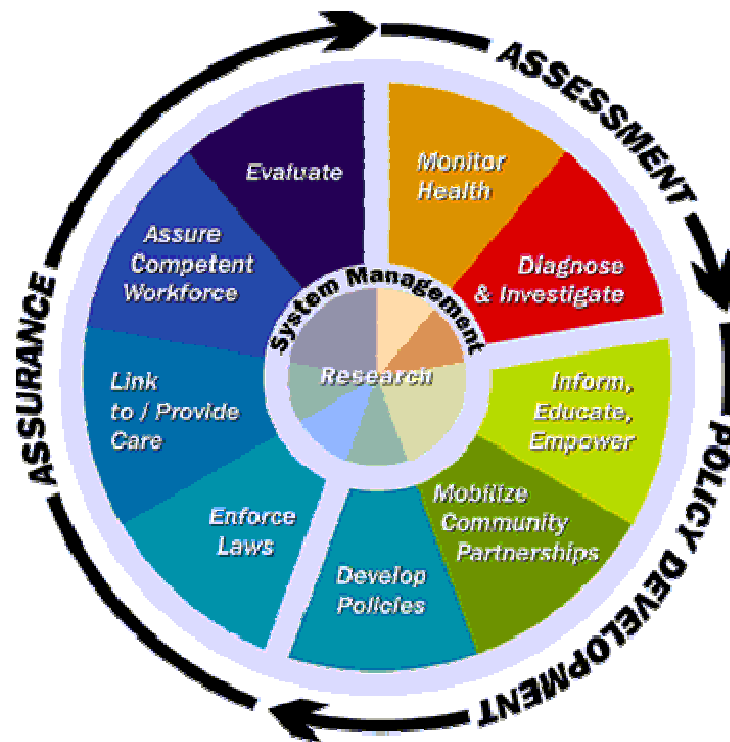


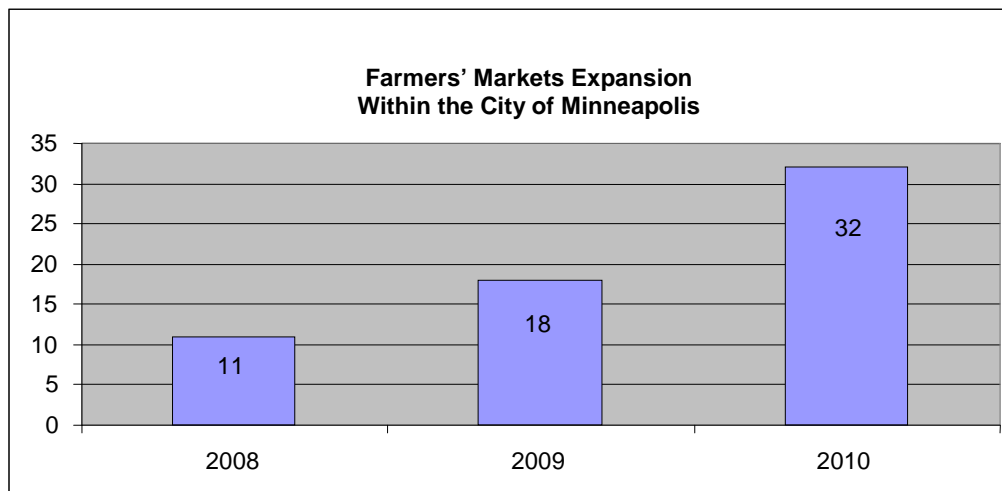
Figure 3: 10 Essential Environmental Health Services diagram is from:  
<http://www.cdc.gov/od/ocphp/nphpsp/essentialphservices.htm>

**1. DEVELOP POLICIES AND PLANS:** Identify individual businesses, growers, market managers and other Homegrown Minneapolis stakeholders in need of specific food protection information and training resources. This is to ensure that the public is provided a safe, wholesome and unadulterated food supply.

This project ultimately leads to support of individual and community environmental health efforts, but we must recognize that doing so increases business opportunities. Environmental Health staff works with small business operators by providing them with proper resources and tools to be successful.

**2. MOBILIZE COMMUNITY PARTNERSHIPS:** Develop a stakeholder partnership forum to identify knowledge gaps and preferred training delivery methods for growers and other front-line food handlers. The Environmental Health leadership team worked with many partner agencies to expand the community engagement initiative.

The goal of this CDC farmers' market project is to establish a more effective food protection model that achieves compliance through partnership, collaboration, training and enforcement by utilizing the strengths and resources of local farmers, vendors, market managers, restaurateurs, regulators, educators and community stakeholders. Meeting this goal contributes to an increase in the number of farmers' markets available to the public.



**Figure 4: Increase in number of Minneapolis Farmers' Markets between 2008 and 2010**

**3. INFORM, EDUCATE AND EMPOWER:** Provide outreach and educational training and deliver it to the regulators and multi-cultural/multilingual stakeholders to increase food protection job knowledge of farmer's market vendors and food service workers.

There are a variety of state constitutional exemptions, rules, regulations, handouts and other food-safety information available, but it is not currently being disseminated in a manner that creates a positive atmosphere. This leads to stakeholder confusion. There are also a variety of outdated city codes that do not effectively advance a local, safe, healthy and sustainable food supply. From an enforcement perspective, the overall effectiveness of this food safety regulatory system is set up through an intricate system of state, city, community and university partnerships. For this project, training was developed on food safety topics, many based on action learning principles. Training sessions were presented to the Minneapolis farmers' market managers and vendors and at public meetings. The sessions included attendees of multiple religions, races, cultures and ethnicities.

Three "Farm to Fork" sessions were presented, each with an audience of approximately 80 attendees. The main focus of these sessions was based around the question: "*How do we get food from our local farms to the cafeterias and other markets of our region?*" The outreach addressed individual experiences with buying/selling as well as dispelling misconceptions regarding state and local rules and regulations. These questions came up repeatedly from the attendees:

1. Can food facilities like restaurants, grocery stores and schools lunch programs legally buy or accept donated produce from a farmers' market or directly from a grower and serve it to their clients, students or customers?

2. Can community volunteers, including parents, assist in the processing of produce from a school garden in an inspected and approved kitchen facility?

These two questions had often previously been answered as **NO**. This answer was actually based strictly upon an opinion or by word-of-mouth information, but without proper research. In fact, the answer for each is actually **YES**. Thus, it was identified there was a need for clear, factual answers and information, presented in a fact-sheet format that could be easily disseminated. This led to a collaborative and cooperative effort with the Minnesota Department of Health, the Minnesota Department of Agriculture and University of Minnesota Extension Service. The result: user-friendly fact sheets were made addressing federal and state statutes, rules, regulations and policies. Topics are:

1. Serving Locally Grown Foods in Food Facilities, June 2010
2. Existing Food Facilities Planning to Can Fresh Foods for Sale or Service, June 2010
3. Existing Food Facilities Planning to Freeze, Dry or Otherwise Preserve Fresh Foods for Sale or Service, June 2010
4. Harvesting and Selling Wild Mushrooms in Minnesota, June 2010
5. Hand Sanitizers: Not a Replacement for Hand Washing in Food Service Settings, June 2010.

These fact sheets can be found at:

<http://www.mda.state.mn.us/en/food/safety/food-safety-resources.aspx>

### ***National Goals Supported***

1. This project addresses five of the 28 the national goals of Healthy People 2010. Items addressed include:

# 7) Educational and Community-Based Programs – Goal: Increase the quality, availability and effectiveness of educational and community-based programs designed to prevent disease and improve health and quality of life.

# 8) Environmental Health – Goal: Promote health for all through a healthy environment.

# 10) Food Safety – Goal: Reduce food-borne illness.

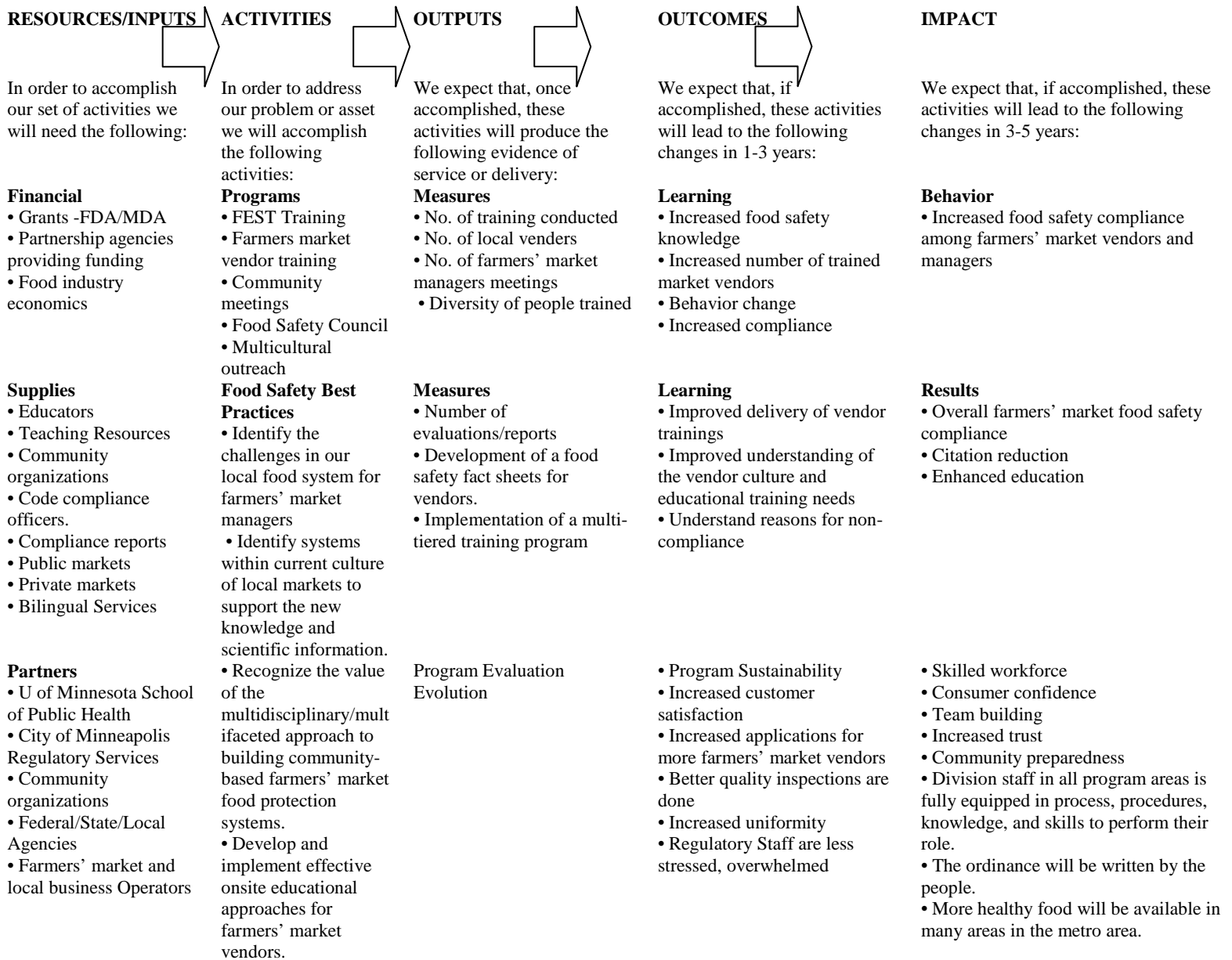
# 19) Nutrition and Overweight – Goal: Promote health and reduce chronic disease associated with diet and weight.

# 23) Public Health Infrastructure – Goal: Ensure that federal, tribal, state and local health agencies have the infrastructure to provide essential public health services effectively. [http://www.cdc.gov/nchs/healthy\\_people/hp2010/hp2010\\_focus\\_areas.htm](http://www.cdc.gov/nchs/healthy_people/hp2010/hp2010_focus_areas.htm)

Accomplishments, as it pertains to five topic areas stated above, are listed in the **METHODOLOGY Events and Activities section**.

2. National Strategy to Revitalize Environmental Public Health Services, Goal VI was met as we created strategic partnerships, fostered interactions among agencies, organizations and interests that influence environmental public health services.  
<http://www.apha.org/programs/standards/healthcompproject/corenontechnicalcompetencies.htm>

## LOGIC MODEL



**Figure 5: Logic Model**

The logic model was utilized to identify this project's objectives, descriptions and deliverables.

## **PROJECT OBJECTIVES/DESCRIPTION/DELIVERABLES:**

### ***Program Goal:***

Effectively lead in recognizing and addressing the regulatory challenges that both the regulator and the farmers' market stakeholders face in expanding the sale of fresh, locally grown foods.

***Health Problem:*** To advance the CDC/NCHS goals within *Healthy People 2010*, there is a need to create a local, safe, healthy and sustainable food supply that will positively impact the citizens of Minnesota.

### ***Outcome Objective:***

1. City of Minneapolis Environmental Health staff needs to work closely with the farmers' market managers and vendors to provide the education, tools and information necessary to manage the food safety and security challenges.
2. City staff will work with Minnesota Department of Agriculture representatives to implement risk-based inspections, increase access to information to local growers, and will also develop a neighborhood ownership philosophy.
3. A cross-functional team will work with local farmers to develop and provide a library of food safety fact sheets and user friendly-guidelines to protect the farm products.
4. Develop a guide that integrates food security and safety components to minimize and prevent food-borne illness.

### ***Determinant:***

1. *Economy:* A local food system supports small farms and local jobs, creates new business opportunities and encourages the re-circulation of financial capital within the city.
2. *Health:* Increased consumption of healthful foods contributes to improved nutrition and reduced levels of obesity and other chronic diseases.
3. *Food Security:* The ability for all residents to grow, sell or easily obtain a consistent, adequate supply of fresh, local foods can empower families and communities to be more self-reliant and enhance community cohesion.
4. *Environment:* Production and purchase of local food can improve air quality and lessen pollution by reducing the amount of transportation and packaging required to bring food from farm to table. Local foods grown in a sustainable manner can also reduce chemical and water usage.

### ***Impact Objective:***

1. Collaboration between both agencies will be advanced. Together, we shall lead the development of reference and resource materials on key issues, conduct out-

- reach learning sessions with the consumers, growers, regulated and exempted food firms. This project will be utilized to train current and new regulatory staff.
2. Leading by example will create a positive atmosphere of advancing a local, healthy and sustainable food supply. More raw produce and further-processed foods will be made available at farmers' markets. Restaurateurs and grocers will have the opportunity to expand their own locally produced food offerings.
  3. The accomplishments reaped from this collaborative effort will be further sown and will be encouraged to cultivate within other units of government and our communities.

***Contributing Factors:***

- A) *How do the benefits of NOT changing and the costs of changing keep the system the way it is?*

The current farmers' market process flow is a workable system, but cumbersome. Time, talent and other resources are needed to implement new process and sustain them. Additional staffing resources are needed.

- B) *10 Ways To Challenge Current Thinking And Attain A Successful Outcome Among Stakeholders*

**Farmers' Market Personnel:**

1. Build better relationships with Market Masters, vendors and regulators – they all have things in common
2. We don't want a quick fix – we need a process for inspection, correction, re-inspection (regulation)
3. Provide a shared vision that makes everyone to work toward a common goal and make food safety a priority
4. Have market managers and vendors recognize that they are accountable for food safety practices
5. Recognize that the consumer benefits the most.

**Regulatory Personnel:**

6. Challenge the assumptions underlying that the old way is best – Food production and safety is now science based
7. Have staff aware of the benefits of critical thinking and accountability
8. Have staff and vendors recognize that technology is a tool
9. Recognize mental models are needed to adapt to change
10. Stakeholder meetings should build positive relationships

- C) *Develop an action plan:*

Providing open access for all community meetings and educational sessions is important, so that the accurate information about the food safety can be disseminated efficiently. Tracking progress demonstrates the impact of accomplishments and topics that need more attention. Opportunities of building partnerships are identified to further cooperation and trust between all involved.

***Process Objectives:***

1. Co-leaders, one from each of the two regulatory agencies
2. Curt Fernandez, Environmental Health Manager for the City of Minneapolis, will work with Minnesota Department of Agriculture liaison Jim Topie.
3. Assistance was requested from and provided by Dr. Craig Hedberg (University of Minnesota School of Public Health). The Environmental Public Health Leadership Institute (EPHLI) team, Code Compliance officers, Food Safety and Security Education Team, FDA staff and MDA staff have played an important role to make this initiative a successful interagency alliance.

## **METHODOLOGY:**

### ***Events and Activities***

State and local regulators, market managers and educators worked together to develop a farmers' market survey under the guidance of Dr. Craig Hedberg from the University of Minnesota School of Public Health. This survey identified the needs of the local farmers and vendors and provided valuable information on purchasing practices from an approved source; handling and storage of produce; chemicals; handling of utensils and equipment during sampling process; and food security.

This farmers' market project helped to identify the regulatory barriers and other limitations and unintended consequences of the current city process (such as application, inspections and enforcement). This helped to find solutions to the non-compliance during the farmers' market season. Preliminary analysis of the survey suggests that open communication and partnership is the key to achieving success towards compliance in farmers' markets.

In an effort to interview the most diverse vendor population and to improve food safety and handling procedures at local farmers' markets, the Minneapolis Environmental Health Farmers' Market team designed, distributed and collected a Farmers' Market Survey. The survey consisted of 15 multiple-part questions assessing the vendor's practices, views and understanding of produce production and handling practices. The purpose of the survey was to provide a professional evaluation of fresh fruit and vegetable production and handling practices of local and regional producers selling and distributing produce through local farmers' markets in the Minneapolis area.

#### Objectives of the survey:

1. Evaluate generalized food safety understanding by determining the relative percentages of vendors who have undergone formal food safety training within the last five years
2. Identify routine practices used during production, harvesting and distribution that create potential for food safety hazards
3. Identify water sources used for vegetable cleaning and cooling prior to transport and sale

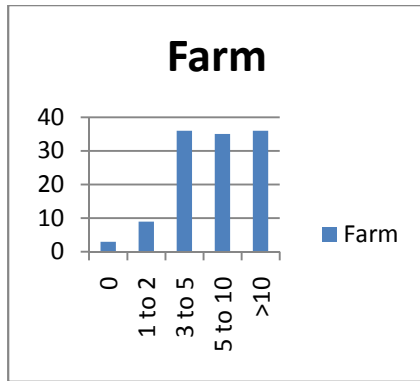
4. Determine routine personal hygiene and sanitation procedures used by vendors at the surveyed farmers' markets as well as an assessment of vendors' understanding of personal hygiene and sanitation

Methodology of the survey:

1. Paper surveys were distributed directly to the vendors with the assistance of market management personnel. Market management collected surveys from vendors one week after distribution. Data was entered into a database by University of Minnesota School of Public Health teams.
2. Survey was developed by University of Minnesota School of Public Health teams in collaboration with the Minneapolis Environmental Health Department and Minnesota Department of Agriculture
3. Interpreting services and help hotline numbers were distributed with the survey

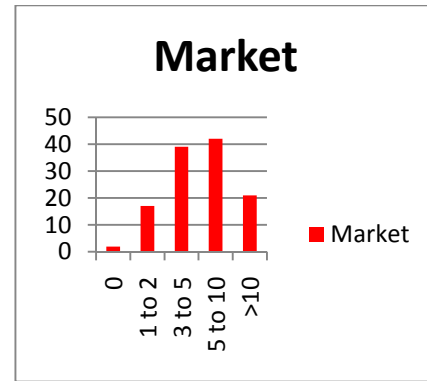
Findings and Conclusions of the survey:

1. Data collected from the survey indicates that 24% of respondents (30/125) have had any food safety or safe agricultural practice training. Slightly over half of those trained, 56% (17/30), had training within the past five years.
2. 54 out of the 125 respondents reported using a city or municipal source water for cleaning vegetables. 50 respondents reported that well water was used, but 22 of these respondents claimed any water testing had been performed. 10 of these 22 knew what parameters were tested. If we assume municipal water sources are tested for potability, and with 22 well-water users, this indicates that 60.8% (76/125) of the water used for cleaning vegetables is from a clearly determined potable source.
3. 36 respondents used ice or water as a method to chill produce after harvesting.
4. 49 of 121 respondents claimed to use sanitizer while cleaning display tables or vegetable containers. However, 22 of these indicated using an actual disinfectant such as chlorine. Of these 22, 4 verified the sanitizer concentration level using methods such as testing strips.
5. The amount of hand washing with soap and clean, potable water performed at the farms and at the market varied greatly. The data illustrated in the charts below is the reported amount of daily hand washing that takes place on the farm and at the market. This may be representative of personal hygiene awareness, but should still be interpreted lightly as data is not indicative of the effectiveness of hand washing by the individual vendors.



Graph #1

Number of times per day respondents washed their hands while working on the farm.



Graph #2

Number of times per day respondents washed their hands while working at the market.

#### Discussion of the survey:

The survey indicates that there is room to improve training of the vendors at Minneapolis farmers' markets. This is particularly true in regard to hygiene and sanitation practices on the farm and at the market. Though it may be unrealistic to require 100% water potability testing, good agricultural practice training may be beneficial to decrease or mitigate sources of contamination on the farm. Proper fresh fruit and vegetable harvesting and handling procedures may be extremely beneficial. There is more that can be drawn out of this report such as the fact that there are quite a few vendors who donate to food shelves. This is admirable, but also needs to be done in a manner to protect the health of the recipients. There is also room for some deeper analyses, such as correlations between prior training and the other food safety measures.

The annual farmers' market managers meetings and food safety summer hand washing demonstrations have been effective in disseminating the information to the local farmers' market stakeholders. The cross-functional team approach in solving the issues/challenges has been successful because of the trust and partnership that has been built over the last eight years with the local business community. In 2011, farmers' market managers agreed to buy and provide standardized hand washing equipment for all vendors to reduce the hand washing related issues. The farmers' market managers implemented new process of application review within their offices to help streamline the application intake process for city staff. This project helped all internal and external customers to work in partnership to identify the limit to success factors, and diversity challenges.

#### RESULTS / ACCOMPLISHMENTS:

This project supports the Healthy People 2010 objective. Accomplishments are listed in parenthesis behind each event or activity to indicate which of the five listed topic areas have been met.

1. Identified and addressed the regulatory challenges in expanding the sale of fresh, locally grown foods at farmers' markets and licensed food establishments. (7)
2. Clarified state rules and regulations for handouts and web-based outreach. (7)
3. Led the development of fact sheets jointly with operators, community groups, Minnesota Department of Agriculture, Minnesota Department of Health, City of Minneapolis and the University of Minnesota Extension Service. Placed on each stakeholder's website. Made them available in paper at training sessions and at the respective farmers' markets. (7)
4. Participated in subcommittee meetings to discuss, evaluate and identify responses to the food safety challenges (7)
5. Presented at three outreach and listening sessions sponsored by the University of Minnesota Extension Service and Minnesota Institute for Sustainable Agriculture (7)
6. Visited a farm (to include other members of our cross-functional team) involving minorities and ethnically diverse farmers that utilizes sustainable agricultural methods by reducing the amount of chemicals applied (8)
7. Visited local sustainable farms to gain better understanding on how produce is raised and what is required to be certified organic and GAP (Good Agricultural Practices) certified(8)
8. Worked with Dr. Craig Hedberg, University of Minnesota School of Public Health, to develop a farmers' market survey using input and ideas from staff at the Minnesota Department of Agriculture Food Inspection Division marketing section, sustainable associations and the Minneapolis Health Department (8)
9. Led and implemented the farmers' market survey to engage famers' market vendors, growers and Market Masters and gain a better understand their thoughts and ideas regarding current and future needs (10)
10. Utilized the Minnesota Department of Health outreach booth titled "*GERM CITY*" to teach and instill the importance of proper hand washing of farmers' market vendors, growers and the general public (10)
11. Attended FDA Epidemiology-Ready training in Roseville, Minn., to reduce the impact of food-borne illness (10)
12. Attended national FDA Farm Produce traceback and investigational training in the State of Virginia (10)
13. Participated in a global food safety forum and shared our project (10)
14. Shared the project with Minneapolis South Rotary Club to better instill the need for greater consumption of fresh fruits and vegetables (11)
15. Participated in a radio interview discussing regulatory challenges for farmers and sellers at farmers' markets and the importance of inspection agencies (23)
16. Collaborated and led multifunctional state and city regulators team inspections to obtain greater uniformity in inspection and interpretation of rules (23)
17. Furthered training of regulatory staff to help create standardized inspections between agencies and personnel (23)
18. Hired a full-time training and public outreach coordinator through the Minnesota Department of Agriculture Food Inspection Division (23)

19. Hired part-time Minneapolis Public Health intern that is a student of the University of Minnesota Masters of Public Health program (23)

### **NEXT STEPS:**

To sustain the Healthy People 2010 objective into the next decade, this project will continue to advance. Next step include:

1. Convene a meeting with program participants to assess program status and direction by January 2011
2. Receive feedback from farmers' market managers on 2010 season to improve the systems and process by January 2011
3. Meet with City of Minneapolis to pass appropriate ordinances that facilitate program implementation by May 2011
4. Evaluate program and share results with other stakeholders in broader metro area
5. Further build upon partnerships
6. Strengthen collaborative team's leadership skills
7. Evaluate as needed and implement necessary further change

### **CONCLUSIONS:**

An analysis of the fresh, locally grown food system (casual loop diagram) reflects the complex structure of bringing fresh produce from a farm to an urban customer. Only a powerful and passionate cross-functional team could identify the issues and challenges associated with the flow of food from farm to market and make changes to sustain it. Adherence to old practices, beliefs and cultural factors seem to be the point of resistance for change. The team has been openly communicating and working together to identify the positive points and staying focused on the goals. Most of the market vendors realize that change is needed and regulators are working with them to make sure that necessary changes will be meaningful to all stakeholders. As government officials, negative experiences and a general distrust of city and state regulatory offices was addressed. Negative opinions were changed by being open-minded and acknowledging the frustrations with the regulatory challenges.

As effective leaders, we regularly reflect upon what we have practiced and learned from others. We identified processes that are not working, reviewed business models in relation to them and have worked together with the multiple stakeholders for solutions. As a result, more raw produce and further-processed foods are now available at farmers' markets in the City of Minneapolis. Restaurateurs and grocers have had the opportunity to expand their own locally produced food offerings. This should lead to a healthier public.

Working with local farmers (including non-English speaking immigrants), farm vendors, food service operators, various food grower associations, and members of the Sustainable Farming Association of Minnesota, we are in the process of changing the city

ordinance chapter 201 and chapter 202 regarding local farmers selling produce at public markets. Our cross-functional team improved communications to streamline the license application and approval process. We look forward to further our collaborative efforts in planning, organizing and carrying out state and local environmental health programs to include having our Minneapolis farmers' market project grow, mature and be a seed that is shared with others.

## **LEADERSHIP DEVELOPMENT OPPORTUNITIES:**

### **Why We Need To Be Environmental Health Leaders**

This project was all about leadership and utilizing the leadership attributes that have been presented to the EPHLI cohort VI fellows. It is important to be guided by those of respect and by those who have a clear sense of direction. These skills do not come naturally, but are acquired through continual work and study. Transformational leadership and servant leadership can be achieved through training, education and professional development. One needs excellent leadership that can show how environmental health leaders can exemplify qualities like persistence, trust, courage, honesty, patience, forgiveness, gentleness and integrity in our work. The above leadership qualities are very important for environmental health professionals, who are accountable for public protection, the leadership and transformation of government organizations and teams, and for a holistic, systematic approach to efficient community service.

Leaders set visions for an organization. Through EPHLI, it is recognized that leadership is an important skill and success indicator for environmental health managers and directors. A powerful environmental health vision and mission is needed on federal, state and local levels that can provide direction and energize all environmental health professionals to set and accomplish goals. This takes leadership in all levels to work in partnership and work towards a common goal of protecting the public health.

Environmental health leaders have the moral responsibility to value, respect and support all individuals. As applied to this study, the environmental health staff learns about different produce items, foods and operator's culture from farmers and business operators and their experiences: different ways of cultivating, harvesting, preparing different food and different methods of operating a business. Today's environmental health field needs capable people who can work effectively with others from around the globe to lead, manage, and integrate change. Peter Senge, in his book Fifth Discipline, tells us that leaders are designers, stewards and teachers. "...They are responsible for building organizations where people continually expand their capabilities to understand complexity, clarify vision and improve shared mental models."<sup>1</sup> These leadership qualities and skills are needed in today's environmental health field. Clear vision and open communication are important for success in public health leadership.

Today's environmental health professionals are faced with many challenges. They are forced to think in many dimensions to find solutions to improve environmental health, as well as improve organizational performance and achieve specific goals with fewer

resources. These dimensions include the management of inspectors, support staff, human resources, finance, outside vendors, technology processes and procedures, and a deeply rooted organizational culture that demands structure. Environmental health leaders can facilitate behavior changes in their followers by changing their mental models, to think differently using a “system thinking” approach. Environmental health leaders could articulate compelling vision of the future and can be optimistic about achieving the CDC goals. One can be enthusiastic about what could be accomplished and encourage others to feel the same. Environmental health leaders could place more importance on long-term transformation of the department and staff than on short-term political and social gains.

Author Peter Senge describes a leader as a teacher. He writes: “Leaders in a learning organization are not authoritarian experts, but rather helping everyone in the organization, oneself included, to gain more insightful views of common reality.”<sup>ii</sup> Environmental health staff needs to be educators to add value to their communities. It is necessary to further develop the environmental health staffs to their full potential and align them with the mission and vision of CDC goals to maintain the 10 essential services.

### ***Jim Topie***

Participating in EPHLI has allowed me to become a more effective leader. I have had the opportunity to utilize what I have learned to enhance my personal strategic visioning and direction-setting skills. My fellow team member, Curt Fernandez, has been invaluable in demonstrating to me on how we all should provide positive customer service in our efforts to protect public health. Our mentor Kendra Kauppi, our “Home Cooked Team” of EPHLI 2010 – 2011 fellows, Ric Encarnacion, Christine Applewhite and Kelly Monahan; and the staff and consultants of EPHLI have all coached me on how to use critical thinking and analysis systems thinking. An outcome is that I have become a better reflective practitioner and action learner. From what I have learned at EPHLI, I’m now a better leader. I have been able to enhance my networking capabilities and become a true collaborator. There is a greater understanding of the importance of building a strong long term relationship between the staff of a city (Minneapolis) and the state (Minnesota). Together we have made change.

### ***Curt Fernandez***

As I plan to attend the last CDC meeting to conclude my EPHLI journey, I look back on the knowledge gain and the wonderful experience I’ve had this past year (2010-11), especially discussing system thinking with my colleagues and the facilitators like Kate and Sherry. I was given timely assistance and many user-friendly tools to add to my tool box to critically and systematically think before I act up on decision to solve complex political, social and economical issues related to environmental health and customer service. Though I was using the Analyze, Plan, Implement and Evaluate (APIE) model to look at issues before I joined EPHLI, the use of the systems thinking model added value to my decision-making process. I’ve worked for the government and private industry for many years, yet the system thinking model is new to me and I am excited to learn more about the impact of this approach in serving my community. Skill scope and MBTI exercises gave me another perspective and now I understand why certain people

behave differently than me when dealing with issues and working on different projects. I have learned that great leaders are focused on their vision and mission, not power-hungry. I will take the initiative to look at things from different angles and will continue to use the tools and develop the leadership skills that I have gained through EPHLI, both in my professional and personal life.

### **About the EPHLI Fellows**

Jim Topie is a Food Inspector III and has 26 years of experience with the Minnesota Department of Agriculture, Dairy and Food Inspection Division. He is the liaison to the City of Minneapolis for the MDA/FDA Food Safety Rapid Response Team. Topie has a BA in Environmental Studies and is a Registered Environmental Health Specialist. Topie states, “To have an effective public health policy, we must all be proactive.” To further this topic, Topie’s family takes part in community-supported agriculture (CSA). He is a steering committee member of the Minnesota Food Safety Partnership. Topie continues to work in partnership with the City of Minneapolis and has been sharing lessons learned to others within the state and region. Jim carries over what he has learned from EPHLI into his volunteer activities as a community activist with the City of Duluth, MN. He promotes healthy lifestyle in getting the public and especially the youth out exercising. Under his leaderships as the president of the parks and recreation commission in Duluth, he’s succeeded in building three disc golf courses and a skate park, as well as expanding bike and walking trails.

Curt Fernandez is the environmental health Manager for the City of Minneapolis, Minnesota, since 2001 and is a Certified Food Manager (CFM) instructor/proctor. He holds a Bachelor in Science from University of Kerala in India, and Masters in Leadership and Masters in Business Administration from Augsburg College in Minnesota. Curt has a track record of revitalizing business operations, bringing leaders together, building relationships between regulatory entities and breaking down the silo mentality and challenging “the way it has always been done” thinking. He believes in open communication, team work, partnership, community engagement and the philosophy that government should reflect the community to serve the needs of the people. He has helped to strengthen environmental health preparedness by working with the National Association of County and City Health Officials (NACCHO), the University Of Minnesota School Of Public Health, the State of Minnesota and local regulatory agencies. Curt has great vision for the direction that environmental health field is moving and directs resources to where they have the greatest public health impact. Curt was recognized by the University Of Minnesota School Of Public Health in 2004 and in 2010 for his community engagement work.

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### **REFERENCES**

<sup>i</sup> Senge, Peter. *The Fifth Discipline: The Art and Practice of Learning*. New York: Doubleday, 1990, 1994; 340.

<sup>ii</sup> Singer, Peter. *One World: The Ethics of Globalization*. United States: Yale University Press, 2004; 469.