

Farm to School in Kentucky: Improving Childhood Nutrition and Promoting Local Agriculture

Kentucky Public Health Leadership Institute Scholars:

Tracey Heflin; L.S.W., CM

Case Manager; Arch Care Consultants, LLC

Holly Niehoff; R.S.

Environmental Health Specialist; Louisville Metro Dept of Public Health and Wellness

Jayaram Srinivasan; M.D., M.P.H., CPH

Chief Resident Physician; Dept of Preventive Medicine, University of Kentucky

Mentor:

Scott LaJoie; Ph.D., M.S.P.H.

Assistant Professor; University of Louisville School of Public Health

EXECUTIVE SUMMARY:

Childhood obesity plagues Kentucky with severe biomedical, psychosocial, and economic consequences. Farm to School offers a validated model which can improve childhood nutrition to help prevent obesity and its ramifications. The approach simultaneously encourages economic stimulation by promoting local agriculture. The framework has proven successful in various counties in Kentucky and in other states. This project represented a coordinated approach from three Kentucky counties. The Farm to School program was implemented in each of these counties based on the initial stages of development. These efforts have helped improve childhood nutrition and have helped promote local agriculture in these communities.

INTRODUCTION/BACKGROUND:

Childhood obesity remains a significant problem in Kentucky despite existing initiatives and programs.^{1,2} This problem often persists into adulthood³ and increases the risk for diabetes, heart disease, and cancer, among other health problems.^{4,5}

Childhood obesity can result in stigmatization, social isolation, and victimization.⁶ Other mental health effects can include low self-esteem,⁷ anxiety,⁸ depression,⁸ and suicide.⁹ Also, research illustrates that overweight status can predict poorer school performance.¹⁰

Obesity-related illnesses greatly contribute to rising, unsustainable healthcare costs as well as related healthcare access limitations.⁴ Far-reaching impacts of childhood obesity affect economic, political, social, and cultural aspects of Kentucky.

The 2009 Kentucky Youth Risk Behavior Survey indicated that among high school students 18% were obese and 86% ate less than five servings of fruits and vegetables per day.¹

In 2009 Trust for America's Health and the Robert Wood Johnson Foundation reported that Kentucky had the 4th highest percent of obese and overweight children in the United States.²

Unhealthy dietary choices contribute significantly to this problem.³ Farm to School provides a validated community partnership approach to improve dietary choices while promoting local agricultural economy.¹¹

Problem Statement:

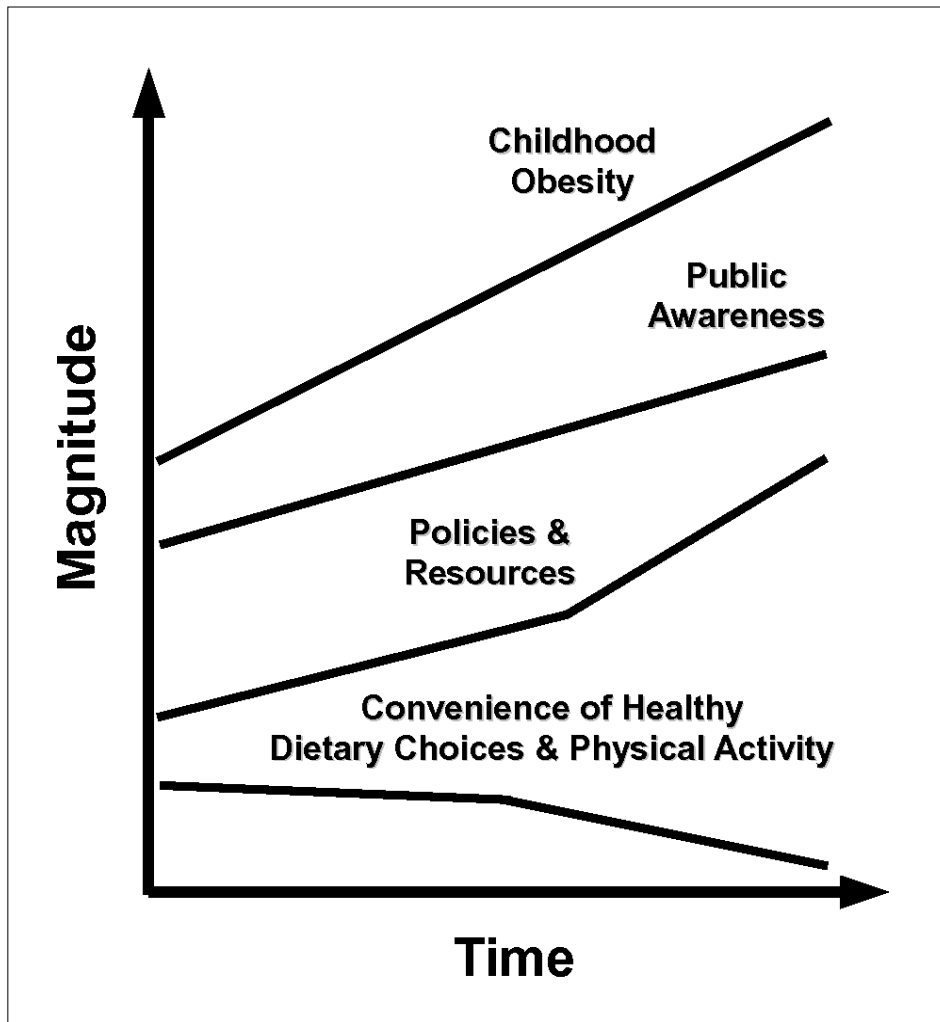
Focusing Question: Despite our best efforts why does childhood obesity remain such a significant problem in Kentucky?

Supplemental Question: Despite our best efforts why do Kentucky children continue to make such poor dietary choices?

Supplemental Question: Despite our best efforts why do Kentucky children still lack sufficient understanding and appreciation of healthy eating?

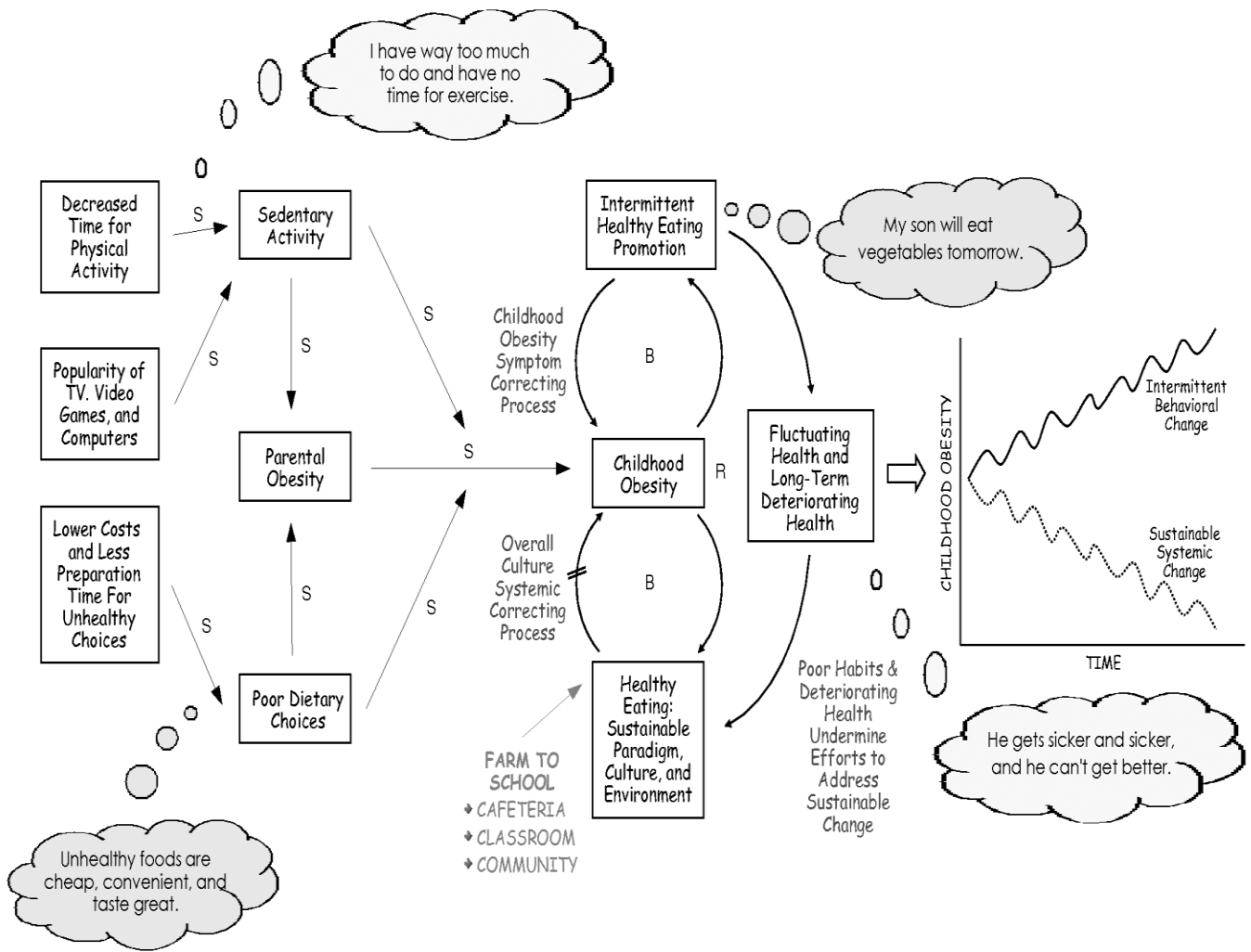
Supplemental Question: Despite our best efforts why have Kentucky schools not fully optimized the financial and physical environments to encourage nutritious dietary intake?

Behavior Over Time Graph:



Causal Loop Diagram:

Shifting the Burden



10 Essential Public Health Services/National Goals Supported:

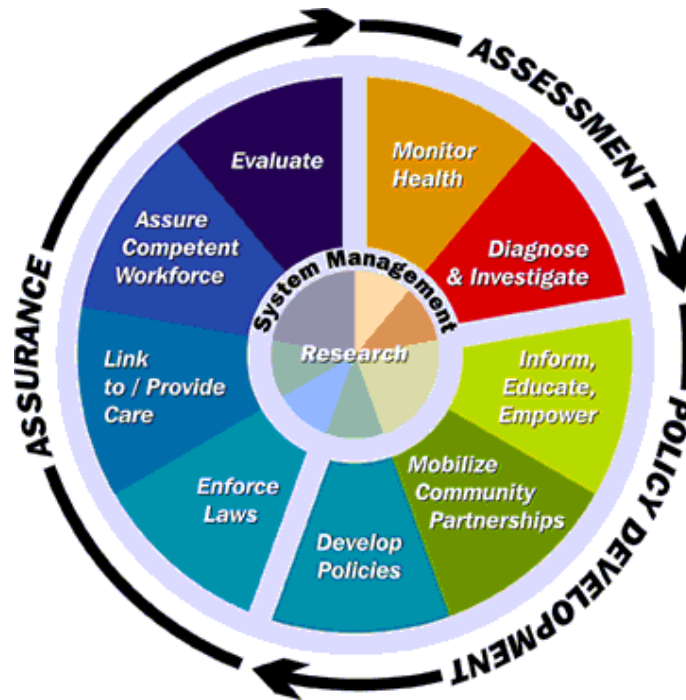


Figure 1: From CDC National Public Health Performance Standards Program

Inform, Educate, and Empower:

The project informs, educates, and empowers children, parents, teachers, farmers, medical providers, public health professionals, and others in the community. Messages include approaches to improve childhood nutrition and to promote local agriculture.

Mobilize Community Partnerships:

The project mobilizes community partnerships between public school food services, farmer cooperatives, local health departments, county agricultural extension agencies, community organizations, and universities.

PROJECT OBJECTIVES:

The team will implement a coordinated, multi-pronged approach across three different counties through the Kentucky Action for Healthy Kids program and the Farm to School program.

Mason County and Surrounding Region:

The team will facilitate the creation and development of the infrastructure for the Kentucky Action for Health Kids (KY AFHK) network in the region. The team will serve on the KY AFHK State Steering Committee and will liaise between the KY AFHK,

schools, and partners. The team will also coordinate listserves, organize meetings, and lead projects for the region.

By April 2011 the team will participate in at least one State Steering Committee meeting, hold at least one regional meeting, create the regional listserve, and serve as a project lead for at least one program, i.e., Farm to School. All of this work will specifically focus on improving dietary choices for children.

Mason County and Fayette County:

In Mason County and Fayette County the team will implement the Farm to School program under the leadership of Kentucky Action for Health Kids. This approach will help provide locally-grown, nutrient-rich, affordable produce at school meals. The Farm to School model has been demonstrated to improve dietary choices of children in other communities in Kentucky and across the nation.

The KPHLI team will assemble county teams for each county and serve as the county team leaders. The KPHLI team will create these county teams by outreach and partnerships with school food service directors, agricultural extension agents, local health department nutritionists, local farmers, and other relevant stakeholders.

The KPHLI team will form county teams and submit applications for both county teams by July 1, 2010 to participate in the state-wide Farm to School workshop.

The applications will include vision and goals, methods and approach, stakeholder partnerships, existing efforts, anticipated barriers, workshop objectives, implementation preparedness, confirmed team members, and potential team members.

The KPHLI team will participate in the Farm to School workshop on July 21, 2010, co-sponsored by the Kentucky Department for Public Health and various governmental and community partners. The team will design a comprehensive Farm to School program that includes cafeteria, classroom, and community strategies.

This action plan will be created during the workshop and tailored to each specific community. By April 2011 at least one component of each aspect of Farm to School (cafeteria, classroom, and community) will be implemented in both counties.

Jefferson County:

In Jefferson County the team will focus on starting 10 new school gardens and helping develop a policy and procedure manual for all Jefferson County Public School gardens with the existing Farm to School task force. The team will also develop educational material for grades K-5 about foods grown in Kentucky.

The work will take place through the Kentucky Action for Health Kids network, the Farm to School program, and their partners. Furthermore, the team will utilize past successes

in Jefferson County to inform the development of efforts in other counties in Kentucky. Lessons learned in Jefferson County will serve as guidance for other regions.

By October 2010 the team will help identify the 10 schools that will develop the school gardens. By April 2011 the gardens will be installed in each of the schools. The Foods Grown in Kentucky curriculum will be developed and available for print and distribution by April 2011. The team will provide input on the policy and procedure manual but the deadline will depend on the Farm to School task force overall effort and not that of the KPHLI team.

PROJECT DELIVERABLES:

The team will complete the tasks outlined above by the dates specified above. The aforementioned tasks represent components of the overall project coordinated by Kentucky Action for Healthy Kids (KY AFHK) and the Farm to School program. The team project will be complete when the specific tasks are complete. Nonetheless, the efforts of KY AFHK and Farm to School will continue for their overall projects well beyond the team's contributions of these components. The primary measures of success differ for each region in Kentucky.

Mason County and Surrounding Region:

The following must be documented by April 2011 to demonstrate success: i) participation in at least one State Steering Committee meeting, ii) completion of at least one regional meeting, iii) creation of the regional listserv, and iv) direction of at least one program, i.e., Farm to School.

Mason County and Fayette County:

The following must be documented to demonstrate success: i) coordination and leadership for county teams including at least school food service directors, agricultural extension agents, and local health department nutritionists, ii) submission of county team applications for the state-wide Farm to School workshop by July 1, 2010, iii) participation in the Farm to School workshop on July 21, 2010, iv) design of a comprehensive Farm to School program that includes cafeteria, classroom, and community strategies, v) creation of an action plan tailored to each specific community, and vi) implementation of at least one component of each aspect of Farm to School (cafeteria, classroom, and community) in both counties by April 2011.

Jefferson County:

The following must be documented to demonstrate success: i) identify 10 schools to build school gardens in the fall of 2010 and establish those gardens by April 2011, ii) participate in a Farm to School task force to develop a policy and procedure manual for all Jefferson County school gardens by spring 2011, and iii) develop "Foods Grown in

Kentucky” curriculum for grades K-5 that will be available for print and distribution by April 2011.

RESULTS:

Fayette County:

On June 30, 2010 an application was submitted to participate in the state-wide workshop coordinated by the Farm to School Taskforce of the Kentucky Department for Public Health. The Fayette County Farm to School Team application covered all of the required elements, and the team was composed of all the necessarily representatives. A KPHLI team member served as the leader for the Fayette County Farm to School Team.

On July 12, 2010 the Fayette County Farm to School Team was selected for the workshop. On July 21, 2010 the team participated in the workshop alongside other teams from around the state. The team created a comprehensive Farm to School plan that included cafeteria, classroom, and community strategies.

The Fayette County Farm to School Team met on September 14, 2010, October 26, 2010, November 16, 2010, February 3, 2011, March 8, 2011, and April 12, 2011. The team expanded to include four public school food service personnel at various levels, four county agricultural extension agents, two local public health department nutritionists, two farmer representatives, three representatives from community organizations, two public school teachers, two parents, three students, and one university physician.

The Fayette County Farm to School Team coordinated one program on December 8, 2010 which included cafeteria, classroom, and community components. The cafeteria component was implemented at Lansdowne Elementary School. Locally-grown sweet potatoes were offered to all students at lunch, and about 70% of students voluntarily participated. The classroom component was implemented for one first grade classroom at Lansdowne Elementary. They received a lesson about sweet potato agriculture, and they read together about healthy diet and physical activity. The community component was implemented at The Arboretum: State Botanical Garden of Kentucky. Fresh farm produce was provided from local growers, and educational displays and handouts were offered about nutrition and agriculture. Activities, games, and prizes for children were also made available.

The Fayette County Farm to School Team has confirmed a second program for April 21, 2011 and a third program for May 13-14, 2011. Both programs will include a cafeteria component by offering locally-grown fruits and vegetables to all students at lunch in Lansdowne Elementary. The third program will additionally incorporate a classroom component with nutritional and agricultural lessons from teachers who volunteer at Lansdowne Elementary. The third program will include a community component by coordinating with the launch of the Kentucky Children's Garden at The Arboretum. The

Fayette County Farm to School Team also recently submitted an application for a Farm to School Mini Grant from the Kentucky Department for Public Health.

Jefferson County:

In fall of 2010 eleven schools were identified to have school gardens installed by spring of 2011 with an additional 9 more schools by spring of 2012. Funding for the gardens was provided by a \$7.9 million federal grant to Louisville Metro Government to improve the overall health of the city. The money is divided into 23 city-wide projects that will, among other things, make healthier foods available in schools, will assist students to grow produce, will build community infrastructure to encourage biking and walking, and will make fresh produce more readily available by implementing “Healthy in a Hurry” stores in underserved neighborhoods. The Louisville Metro Department of Public Health and Wellness will administer the grant. While the grant will seek to improve health for the entire city, it also focuses on 12 “targeted” neighborhoods. These neighborhoods have populations with the worst health statistics in the city. Joining the Department of Public Health and Wellness in executing the strategies of this grant are several community partners: Jefferson County Public Schools, YMCA, TARC, Metro Parks, Louisville Metro Police, Louisville Metro Public Works, Mayor's Office, PolicyLink, The California Block Club Federation, Norton Healthcare, Baptist East, and the University of Louisville.

In March and April of 2011 the eleven school gardens were installed with the help of students from Fern Creek Traditional High School in Jefferson County. The raised beds utilized sustainable cedar from Trimble County, KY. The greenhouse at Lassiter Middle School will provide seeds and seedlings for the projects. Teachers and students will be provided with instruction on how to plant and take care of the gardens.

In March of 2011 the “What Grows in Kentucky?” curriculum guide for grades K-5 was developed and distributed to the Jefferson County Farm to School Task Force and Jefferson County Schools Nutrition Services Coordinator. It will be shared with other Farm to School teams and schools across the state.

The policy and procedure manual for school gardens is still in development at this time but will state that a school may decide to raise vegetables or fruits that can be sold to the school cafeteria for meals or they may establish a farmers market. They may also decide to use the vegetables for cooking clubs or in classroom curricula. Schools will decide what they will produce.

Mason County:

In May 2010 I began contacting community agencies to develop a team to meet the required components to submit an application to participate in the state-wide workshop coordinated by the Farm to School Taskforce of the Kentucky Department for Public Health. The completed application was submitted in June. Upon receiving the application team members were contacted by the larger initiate Kentucky Action for

Healthy Kids to be representatives for the Buffalo Trace Region as the initiatives had not began in far eastern areas of the state. Two team members agreed to be contacts/representatives for the initiatives for the region. Team members attended the Farm to School workshop on July 21, 2010 and gathered material and program ideas from other regions.

Team members met on September 23, 2010 to discuss plan of action and options for implementation for the Mason County Farm to School initiative. It was decided that the subject would be presented to school administration for support and direction. They were open to suggestions and a plan of action on the team's behalf. The next meeting was held with agriculture teachers at the high school and middle school to discuss utilization of the school green houses for produce to be consumed by students. They began growing cherry and grape tomatoes for this purpose.

These products began being used on the school salad bars in January 2011. School administrators agreed to support the initiative within the county.

The team presented information of the Farm to School initiative to local farmers market producers meeting held in March 2011. Three growers expressed interest to cherry and grape tomatoes as well as corn for the fall semester of 2011.

The Mason County Farm to School Team as well as other community partners are coordinating a summer program at The Tom Browning Boys & Girls Club where space is provided, and a group of 24 children will participate in a Summer Garden Club. The club will provide space and support for the program. The team as well as other community groups will also will support the planning and implementing of a community garden on the east side of Maysville, near public housing which otherwise has no access to grow fresh vegetables. The team will utilize "What Grows in Kentucky?" as an informative piece of planning for both projects.

CONCLUSIONS:

The KPHLI team implemented the Farm to School model with a coordinated approach in Mason County, Fayette County, and Jefferson County. Programs included cafeteria, classroom, and community components to improve childhood nutrition and to promote local agriculture. The initial stages of the existing Farm to School infrastructure varied for each county. Also, the available human and fiscal resources differed by county. Nonetheless, much progress was made to build the Farm to School programs in all three counties. The efforts represented part of an ongoing process which will likely continue well beyond the scope of KPHLI. Further development and implementation of the Farm to School programs will hopefully progress and be accompanied by formal program evaluations. Overall, within one year this project successfully mobilized various community partners to help reduce childhood obesity and to help stimulate the local economy in three Kentucky counties.

LEADERSHIP DEVELOPMENT OPPORTUNITIES:

Tracey Heflin

I originally was shocked and unsure of how to proceed where no initiative had begun. I have learned a great-deal about the importance of networking and collaboration as it relates to the starting point of a project. I have also learned the value of those connections when looking for advice or direction; I could look at what was being done in the counties of Fayette and Jefferson as reported from my KPHLI team members for references. It has been such a labor of love to get this initiate started in Mason County and to watch it grow from a suggestion as a class project with KPHLI into community programs and a regional initiative that will change the course of nutritional habits for the children of Mason County for many years to come. I believe that this project defines the impact one person can have as a mechanism for social change.

Holly Niehoff

My involvement in the Farm to School program has provided me with a unique experience to make an improvement in the health and lives of our young future leaders. When I look back over the year I have spent in the KPHLI program and the work I have accomplished for Farm to School, I feel proud to be a part of such an important turning point in the history of school lunch policy, environmental education and physical education for our youth. There are a lot of leadership opportunities available in the Farm to School framework across our state, and I hope to stay involved and be a part of making Kentucky a healthier place to live, work and play.

Jayaram Srinivasan

On May 26, 2010 I first learned about the Farm to School paradigm by attending a webinar. Although I was intrigued by the model, it was KPHLI that motivated me to lead efforts to implement this creative framework. At the summit on June 15, 2010 I was very excited to find that others at KPHLI shared my interests in improving childhood nutrition and promoting local agriculture in our communities. I must admit that I was surprised and impressed at what our KPHLI team accomplished in less than a year. I found that the concepts of meta-leadership and the tipping point especially applied to my experiences. I learned that providing basic leadership and facilitation can bring important stakeholders to the table to make great changes. Sometimes all that is required is a leader to move a community beyond its tipping point to activate important progress.

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