Health Impact Assessment

ARKANSAS FARM TO SCHOOL

Conducted by the Access to Healthy Foods Research Group
at Arkansas Children's Research Institute



EXECUTIVE SUMMARY

October 2017

ARKANSAS FarmtoSchool

Arkansas Children's Research Institute

CONTENTS

What is Farm to School?

Farm to school enriches the connections between communities and food sources, increasing access to fresh, healthy, local foods in schools and early care and education (ECE) settings. In turn, becoming more connected to their food sources empowers children and their families to make informed food choices while strengthening the local economy and contributing to vibrant communities.[5]

To address the parallel issues of childhood obesity, inadequate nutrition, and hunger, Farm to school has been proposed as a systems-based solution. Farm to school implementation differs by location but always includes at least one of three core elements:

1) **Procurement:** Local foods are purchased, promoted and served in school meals, and/or as a snack or taste-test in the classroom;

2) **Education:** Students participate in education activities related to agriculture, food, health or nutrition; and

3) **School gardens:** Students engage in hands-on learning through gardening.

Arkansas rates of childhood obesity and food insecurity are consistently some of the worst in the country. In the 2016-2017 school year, nearly one in four kindergarteners were overweight or obese.[1] Nearly half of Arkansas adolescents eat fruits or vegetables less than one time daily, and 11% eat fruits or vegetables less than one time per week.[2,3] Additionally, one in four Arkansas children are food insecure — the second highest rate in the nation.[4]

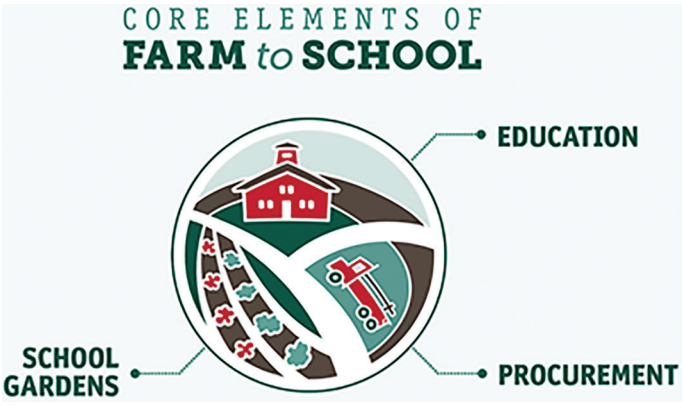

Fig. 1: National Farm to School Network's Core Elements of Farm to School

Farm to School in Arkansas

Currently, only 22% of Arkansas school districts report participating in farm to school activities, compared to 42% across the nation.[6] Many school districts show interest in procuring local foods but report difficulty finding a broad range of appropriately-processed food products throughout the school year. Meanwhile, only 0.2% of Arkansas' seven million acres in harvested cropland are dedicated to fruit and vegetable production, and the number of farms and acreage devoted to fruits and vegetables appears to be decreasing.[7] However, a growing number of schools and communities across the state report wanting to engage more fully in farm to school activities[6] and support from state agencies and institutions is increasing[8].

A survey of Child Nutrition Directors (CNDs) in 2015 indicates that barriers to F2S participation include lack of variety of local products offered by vendors (71.1%), delivery issues (68.4%), lack of available processed/pre-cut products (63.1%), unavailability of local items year-round (53.6%), and difficulty finding new suppliers, growers, and distributors (43.2%).[9]

FIG. 2: HEALTH IMPACT ASSESSMENT SIX-STEP PROCESS

The HIA process consists of five phases:

1. **Screening:** Determining the need and value of an HIA;
2. **Scoping:** Determining which health impacts to evaluate, methods for evaluation, and a work plan for carrying out HIA goals;
3. **Assessment:** Profiling existing health conditions and evaluating the direction and magnitude of potential health impacts;
4. **Recommendations:** Providing strategies to maximize positive health impacts and manage adverse impacts;
5. **Reporting:** Communicating HIA findings and recommendations; and
6. **Monitoring and Evaluation:** Tracking impacts on decision-making process and subsequent health determinants.

About Health Impact Assessment

The National Research Council of the National Academies defines Health Impact Assessment (HIA) as "a systematic process that uses an array of data sources and analytic methods and considers input from stakeholders to determine the potential effects of a proposed policy, plan, program, or project on the health of a population and the distribution of those effects within the population."[10] HIA helps inform decision-makers about the potential health impacts of an upcoming decision, particularly when health outcomes would not be otherwise considered. This HIA was aimed at gathering evidence about the impact a state-wide farm to school coordinator position, housed in a state agency, would have on building infrastructure for farm to school in the state as well as effects on nutrition-related child health outcomes. Utilization of the Health Impact Assesesment model allowed the Access to Healthy Foods Research Group (ATHF), with technical assistance from Upstream Public Health, to systematically gather existing data, combine it with input from local experts and stakeholders, and analyze the findings into conclusions and recommendations for the future of farm to school in Arkansas.

FIG. 3: HEALTH IMPACT ASSESSMENT GOAL AND OBJECTIVES

The goal of this HIA was to evaluate the potential health impact of establishing a state Farm to School Coordinator position in Arkansas on childhood obesity rates, and other nutrition related health impacts. The objectives for achieving this goal were to:

1. Develop capacity in the HIA process;
2. Establish a core of HIA expertise in Arkansas for addressing the potential health impacts of other decisions;
3. Inform and improve the planning and decision-making process around farm to school programs in Arkansas;
4. Engage external local partners who work on childhood obesity / nutrition-related conditions to help identify the linkages between farm to school and health;
5. Develop understanding of current farm to school capacity in Arkansas.

HIA Scope

To address the objectives of this HIA, we formed an Advisory Board comprised of representatives from various farm to school stakeholder groups in Arkansas.* The ATHF Research Group, with guidance from Upstream Public Health and input from the Advisory Board, narrowed the scope to two tiers (see *Figure 4* below) of potential focus and impact that could result from the establishment of a farm to school coordinator position. An additional supplementary area of focus and impact was identified in order to complete the scope pathway. Corresponding research questions were developed to guide the exploration of each focus area. See *Figure 5* for impact areas and corresponding research questions.

* For a full list of participating organizations and institutions, see *Acknowledgements* at the end of this document.

Fig. 4: HIA scope pathway diagram

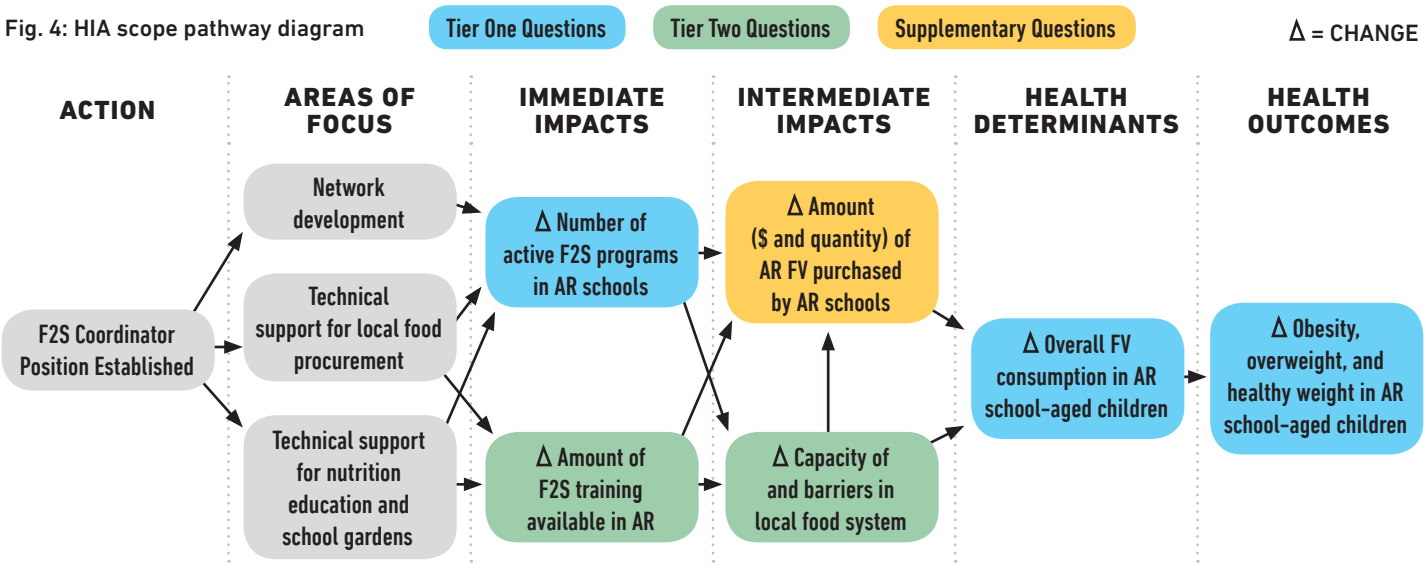

FIG. 5: HIA IMPACT RESEARCH QUESTIONS

IMPACT AREA	RESEARCH QUESTION
Tier One	
Childhood Obesity	Does Farm to School programming (via the Coordinator) impact childhood obesity, overweight, and healthy weight?
Child Fruit and Vegetable Consumption	Will the creation of this position impact overall fruit and vegetable consumption in Arkansas school-aged children (regardless of source)?
Active Farm to School Programs	Will the creation of this position impact the number of active Farm to School programs in Arkansas schools?
Tier Two	
Capacity and Barriers in the Local Food System	Will the Farm to School coordinator position impact the capacity of, or barriers in, the local food value chain as it relates to Farm to School?
Farm to School Training in Procurement, Nutrition Education, and School Gardens	Will the creation of this position impact the amount and type of Farm to School training (in procurement, nutrition education, and school gardens) available in Arkansas?
Supplementary Question (additional research question necessary for complete pathway)	
Local Fruit and Vegetable Purchasing by Arkansas Schools	Would the Farm to School coordinator position impact the amount (in $ and quantity) of Arkansas fruits and vegetables purchased by schools?

Assessment

This HIA combined multiple assessment techniques, including literature reviews, primary data analysis, secondary data analysis, and key informant interviews. Peer-reviewed literature on each of the farm to school components of local procurement, nutrition education, and school gardens was reviewed. Additionally, grey literature including reports, manuscripts, and other unpublished documents were identified and reviewed. Primary data analysis included a review of surveys and evaluations collected through research and programming conducted by the Access to Healthy Foods Research Group. Secondary data analysis included reviews of existing national and state data sources. Key informant interviews were conducted with stakeholders along the Arkansas Farm to School food value chain, including farmers, processors, and child nutrition staff.

Current Conditions and Findings

Tier One

Childhood Obesity

Does Farm to School programming (via the Coordinator) impact childhood obesity, overweight, and healthy weight?

- Children in Arkansas experience higher rates of overweight and obesity than the rest of the nation.
- Obesity is associated with food insecurity, of which Arkansas has one of the highest rates in the nation.
- **HIA Finding:** Moderate evidence suggests that it is uncertain that a farm to school coordinator position could impact child overweight and obesity in Arkansas.

Child Fruit and Vegetable Consumption

Will the creation of this position impact overall fruit and vegetable consumption in Arkansas school-aged children (regardless of source)?

- Arkansas continues to fall behind the national average of fruit and vegetable consumption in youth populations, but school meals offer an opportunity to address this.

- **HIA Finding:** Moderate to strong evidence suggests that a farm to school coordinator position would likely increase child fruit and vegetable consumption in Arkansas.

Active Farm to School Programs

Will the creation of this position impact the number of active Farm to School programs in Arkansas schools?

- Number of active F2S programs has grown over past five years, but participation rate is third lowest in nation.
- **HIA Finding:** Moderate evidence suggests that it is likely that the presence of a farm to school coordinator would moderately increase the presence of farm to school programs in Arkansas.

During the 2016–2017 school year, 39% of Arkansas students were classified as overweight or obese.[1]

Tier Two

Capacity and Barriers in the Local Food System

Will the Farm to School coordinator position impact the capacity of, or barriers in, the local food value chain as it relates to Farm to School?

- Many farmers are interested in selling to schools, but lack important information related to preferences and the procurement process, as well as the resources for season extension, minimal processing, third party certification, and delivery to multiple sites.
- **HIA Finding:** Moderate evidence suggests that barriers for farmers and child nutrition direc-

tors would decrease as a result of having a farm to school coordinator in place. Limited evidence suggests that this would also occur for distributors in the state.

Farm to School Training in Procurement, Nutrition Education, and School Gardens

Will the creation of this position impact the amount and type of Farm to School training (in procurement, nutrition education, and school gardens) available in Arkansas?

- There are several organizations working on each of these three topic areas for various audiences across the state, but there is not overarching coordination between the organizations or their missions and mandates.
- **HIA Finding:** It is possible that a coordinator position would establish coordination of these efforts among organizations, which could in turn increase the level of procurement and school garden training for farm to school practitioners. Limited evidence suggests that it is uncertain whether or not training would increase for nutrition education.

In the 2013–2014 school year, Arkansas schools spent $1,255,964 on local products, an average of 2% of their total food budget.[6]

Supplementary Question

Local Fruit and Vegetable Purchasing by Arkansas Schools

Would the Farm to School coordinator position impact the amount (in $ and quantity) of Arkansas fruits and vegetables purchased by schools?

- School meals provide an opportunity to increase use of local products to meet the USDA nutritional guidelines and there is plenty of room for improvement in the number of schools doing so. Child Nutrition Directors (CNDs) need more information about what is available, how to purchase it, and what the regulations are for buying local.
- Tools and processes for tracking local fruit and vegetable purchases in the state are extremely limited.
- **HIA Finding:** Limited evidence suggests that it is likely Arkansas schools would increase their fruit and vegetable purchasing if a coordinator position were in place. Additionally, moderate evidence suggests Arkansas farmers, farm employees and local economies would experience a small to moderate impact from the implementation of a farm to school coordinator position.

Recommendations

According to findings, evidence supports the need for a Farm to School Coordinator position in Arkansas.

This position would work in the following major task areas:

- **Promote and support the local food system** through the creation of relationships and infrastructure allowing for the growth, aggregation, processing, storage, and delivery of Arkansas products for multiple markets, including institutional buyers such as schools, hospitals, and colleges and universities.

  ✔ **Anticipated result:** Creation and/or coordination of physical infrastructure such as food hubs, processing and storage facilities, and delivery routes, as well as ongoing communication between growers, distributors, and end users to support the large scale sale and delivery of local products to institutional markets on a year round basis.

- **Facilitation of a Farm to School Leadership Team** composed of key stage agencies, organizations, and stakeholders, to include the ATHF research group, Arkansas Agriculture Department, Department of Education Child Nutrition Unit, Department of Health, Department of Human Services, University of Arkansas Cooperative Extension, and CNDs, farmers, and distribution representatives to develop agency level coordination of farm to school activities and solutions to the identified farm to school barriers in Arkansas.

  ✔ **Anticipated result:** Ongoing coordination of existing resources to promote farm to school as a health and economic development tool for Arkansas communities with better efficiency, as well as an authority-holding group to make decisions regarding appropriate use of local products in school environments.

- **Coordinate contract process for a full economic analysis of farm to school potential in Arkansas** by a professional agricultural economist in order to quantify the economic development potential and impacts of broader local product availability on the agricultural sector, and other related sectors.

  ✔ **Anticipated result:** Creation of Arkansas-specific report illustrating economic potential of specialty crop procurement by local food-related businesses helping to highlight where investments of time, expertise and resources would make the most impact.

- **Develop a system for collecting local product purchase information** in order to continually track and monitor the growth of sales and their impacts on the local economy.

  ✔ **Anticipated result:** Creation of Arkansas-specific information illustrating eco-

nomic impacts of local products, as well as areas in most need of investments of time, expertise and resources.

- **Creation and management of farm to school small grants program** for small scale specialty crop farmers, daycare centers, public and private schools, colleges and universities, senior centers, residential facilities, and other similar programs to begin or enhance farm to school programming including local procurement, gardens, or nutrition education, including connections to current organizations and resources offering farm to school support.

  ✔ **Anticipated result:** Provide pilot or seed funding to stakeholders to support implementation of farm to school activities, allowing for feasibility testing and capacity building, ultimately enabling long-term sustainable growth of future programming.

- **Support increased production of specialty crops and other local products** to assist interested farmers and growers in: converting commodity crop acreage into specialty crop acreage, learning about season extension techniques and equipment, providing connections to and information about institutional markets, receiving third party food safety certification,

  ✔ **Anticipated result:** Increased capacity by local growers to meet the growing demand for local products for use in numerous markets.

- **Continued coordination of technical assistance and network building** such as website maintenance, gatherings and events, promotion and outreach, trainings for farm to school stakeholders, and resource development

  ✔ **Anticipated result:** Increased communication between farm to school stakeholders, as well as development of a strong, robust, informed farm to school network in Arkansas.

Ongoing and Upcoming Efforts

- **Funding from various entities** (federal agencies, philanthropic sources) has been received by organizations and institutions across the state to provide training for farm to school stakeholders and practitioners, develop new school gardens and garden-based curriculum, and support the growing farm to school network in Arkansas.
- **A Farm to School Collaborative** was established in September 2017 which will be meeting regularly to develop a mission, vision, and strategic plan for farm to school in the state.
- **The Local Food, Farms, and Jobs Act (Act 617)** passed in the 2017 legislative session to spur economic growth through food and farms by encouraging state institutions to purchase locally grown, processed and packaged products, and directs the Arkansas Agriculture Department to assist with development of partnerships between growers, distributors, and institutions. The Act also initiates a tracking mechanism for local purchases.
- **A monitoring and evaluation plan** will be designed and executed to assess the ongoing status of farm to school in the state, as well as inform future steps.

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