

## Farm-to-Hospital Research Findings Point to Opportunities for Extension

### Abstract

Extension has a history of local foods programming around *farm to institution*. But connections with hospitals, an industry sector with significant potential for increased local food purchasing, appear limited. Hospital outreach could provide inroads for patient and employee education around healthy eating. But does Extension know how to engage healthcare foodservice? Do hospital foodservice directors have knowledge of Extension? This article focuses on intersections at which Extension can approach hospitals to help improve health and the economy through local foods. It is based on findings excerpted from a comprehensive Ohio hospital foodservice director study (n=155) conducted in late 2014.

### Brian Raison

Assistant Professor  
Department of  
Extension  
Ohio State University  
Columbus, Ohio  
[raison.1@osu.edu](mailto:raison.1@osu.edu)

## Introduction

The healthcare industry holds great partnership potential for Extension through the realm of local foods programming. But does Extension know how to engage healthcare foodservice? Do hospital foodservice directors have knowledge of Extension? Although Extension has a history of outreach and programming around *farm to institution*, the preponderance of work has been focused on *farm to school*, based on the 11-year-old USDA program. But hospitals and healthcare services comprise a significant segment of the U.S. economy. So the potential for impact in this specific industry sector is great. That said, investigation into the hospital foodservice literature leaves it unclear as to what percentage actually participates in procuring, serving, and/or promoting local foods to patients and employees. The study reported here discovered critical information that answers the question of where and how Extension might intersect with healthcare foodservice based on their past purchasing practice and current interest in future purchasing of local foods.

## Problem Statement

For the past 40 years, the nation's predominate food supply chain has been rooted in a high volume, large concentration, and heavily conglomerated commodity process that has provided an abundant supply for U.S. citizens and much of the world (Lev & Stevenson, 2013; Matson & Thayer, 2013; USDA, 2012). In comparison to this existing system, a relatively new local food movement has emerged that may allow hospital foodservice directors (FSDs) an additional or alternate purchasing opportunity.

These alternate purchasing opportunities are causing some level of evolution in standard institutionalized foodservice procurement. For example, some hospitals are providing local foods as a means of improving health and wellness (Kaiser Permanente, 2013; Klein, 2012; Mitchell, 2009). The local food offerings are helping

hospitals to:

- Keep more of their purchasing dollars in the local economy (Cosgrove & Maring, 2006; Beery & Vallianatos, 2004);
- Serve foods that are picked at the height of ripeness, which often results in some of the highest nutritional values (Firth 2007; Halweil, 2007; Saha & Nath, 2006; Matheson, 2012; Lee & Kader, 2000; Harris & Karmas, 1988);
- Increase the awareness of hospital staff and patients in healthy, nutritious eating through local foods, e.g., Know Your Farmer programs (Matheson, 2012; CDC, 2011);
- Have opportunities to increase positive community relations and even media exposure by supporting local farms and jobs in agriculture (CDC, 2011).

## Purpose of Study

The purpose of the study reported here was to investigate what factors contributed to Ohio hospital foodservice directors purchasing or not purchasing local foods for use in their operations. The ultimate question explored in this article is whether Extension can help hospitals fulfill their goals and objectives of improving the health of patients and employees by assisting with local foods procurement or programming. With that premise, other questions emerge. What if Extension's traditional approach to "farm to institution" does not fit the hospital model? Perhaps there are non-traditional, unobserved, or unknown needs. These implications are discussed.

The full study explored the research questions below. This article, as noted, is focused only on the last item.

1. How much knowledge did Ohio hospital foodservice directors (FSDs) have of the local food movement and its relationship with healthcare?
2. To what extent were FSDs currently using local foods, and were they interested in purchasing local foods in the future?
3. What systemic issues advanced or impeded their use of local foods, and, of those, which decision factors (challenges) were perceived as the greatest barriers?
4. What were the relationships between demographic variables and the use of local foods?
5. To what extent were Ohio hospital FSDs aware of Extension and their programs on local foods, and were they interested in participating?

## Literature on Extension Roles in Foodservice

This brief exploration of the literature considers case studies of Extension involvement in similar work or with parallel industry sectors. As early as 1974, Extension was working with and describing how to assist, healthcare decision makers in being more effective in meeting healthcare needs in hospital and public health situations (Cordes, Riddick, & Crawford, 1978). They noted the opportunity for Extension to "establish strong linkages with relevant organizations" (p. 19) in order to better meet the needs in the healthcare community. Further, they suggested using surveys to "establish specific educational needs" (p. 19). This was the approach used in this project.

Condo and Martin (2002) and Scutchfield, Harris, Tanner, and Murray (2007) provided other examples of Extension's emerging opportunities to partner within the healthcare profession. Mutual benefits were noted as specific, beneficial programs emerged from the work. For example, a seven-state pilot project, "Health Professions and Cooperative Extension: An Emerging Partnership," showed how Extension could bring together university resources and offer community-based service-learning projects for health professionals and students that were mutually beneficial to all involved (Condo & Martin, 2002). This project also launched a "Healthy People...Healthy Communities" initiative aimed at educating individuals and families to adopt healthy behaviors and building community capacity to improve health. Results showed positive outcomes on both measures, plus an indication that the project brought higher visibility to Extension within the community. They noted that people who had previously not heard of Extension learned about its value and potential as an educational resource.

Scutchfield et al., (2007) found that although many partnerships and coalitions existed to work on health issues of Kentucky's citizens, Extension was "a secret." They noted that the local Extension agents were not thought of by faculty or the major health units at their university center (University of Kentucky), so they were not being used in outreach. Since then, they have undertaken numerous successful health programs and have involved Extension in the work (Scutchfield et al., 2007). They are now conducting more activities that cover a wider range of health issues in their work to build healthier communities statewide.

Along with healthcare programs and partnerships, the literature shows that Extension has a role in the local food supply area. As is often the case, Extension may again play the role of convener. Knight and Chopra (2013) note that Extension's access to consumption production models can enable institutions to estimate capacities for specific commodities (such as local foods). Further, by working closely with the entire local food supply chain (producers, processors, distributors, and purchasers), Extension can help buyers procure local foods via the value chains (Bloom & Hinrichs, 2010). The price of local foods can be a perceived barrier to institutional buyers and foodservice management companies. However, by working with Extension, buyers can learn about successful models that may be adopted to make the program work (O'Hara & Pirog, 2013; Sachs, 2011; Cantrell, 2009).

Extension has also worked in parallel industry sectors that provide examples of potential for the hospital foodservice operation. Wise, Sneed, Velandia, Berry, Rhea, and Fairhurst (2013) report on the most common expectations of local foods among consumers and restaurateurs in a topically related study. They found that people wanted local foods to be environmentally safe and sustainably produced and distributed—all socially conscious reasons for their purchases (Wise et al., 2013). Though that study looked at supply and demand for local food products across the distinct groups of producers, restaurateurs, and consumers, it today informs Extension educators by providing a snapshot of their interests and concerns that can be shared with hospitals and the healthcare industry.

The literature citing studies of Extension involvement in local food systems work indicates that they have a potential role in working with hospitals or other healthcare institutions. Dunning et al. (2012) suggested that "Extension educators have the potential to tap both structural and relationship networks to foster collaboration and catalyze institutional change in food systems" (p. 99). Their study posited "institutional entrepreneurs" as the model to adopt so Extension could help communities understand how to create lasting food system change. Again, Extension was seen as a major driver because of their ability to help connect the right people to provide solutions to the issues that roadblock progress.

Last, and perhaps more important, Dunning et al. (2012) saw "the capacity and expertise of county-based field agents to serve as institutional entrepreneurs [could] enable agents to respond to the growing public demand for local foods through partnerships and [could] maintain the Extension Service's relevance in a challenging

budgetary climate" (p. 110). With the continued expected growth in the healthcare sector, maintaining Extension's relevance therein could emerge as a stronghold for future programming and financial support.

## Research Methods

An online survey instrument was developed based on two previously vetted farm-to-school questionnaires that paralleled the hospital inquiry. Ohio foodservice directors were asked about their *knowledge of and interest in* local foods use. They were asked about opportunities or barriers to purchasing local foods and about their knowledge of Extension and its programs on local foods. The aim of the last item was to obtain background data that might prove useful for Extension educators as they conduct future work with healthcare entities. An expert panel reviewed the instrument for validity. It was made up of 12 researchers and practitioners who were familiar with the local food movement and/or Extension. The survey launched on June 12, 2014 and ended July 14, 2014. Of the 155 FSDs identified, 105 responded for a 67.8% response rate.

## Summary and Discussion of Findings

This analysis focuses on the portion of the research that dealt with the implications for Extension's work with hospitals in food systems. For background, a basic outline of other relevant data is included.

In brief, findings suggested that just over three-fourths of the hospital foodservice directors had knowledge of and interest in the local food movement. However, only 57.7% were currently using local foods in their operations. Even fewer were implementing local food-related programs (hospital gardens, know your farmer, local food seminars, composting). Knowledge of government programs to help hospitals and the USDA's support of local food use in hospitals was the lowest, with only 19.5% and 15.6%, respectively.

The major reasons for *not* incorporating local foods into operations were based on concerns over inconsistent supply levels, liability insurance, refrigeration, and other food-safety issues. Of those FSDs who were not currently using local foods, 75% said they would be more likely to purchase and serve local foods if their broadline food distributor offered more local items. Last, the findings showed that food service directors *are* interested in programming to learn how to incorporate more local foods into their operations.

Local foods programming is a specialty area of Extension. But the extent to which Ohio hospital FSDs were aware of Extension and their programs on local foods was unknown. Thus, the instrument items in this section of the survey were designed to explore the potential interest that Ohio hospital FSDs might have for participating in Extension's programs on local foods. The results returned very favorable data.

The first question asked what level of familiarity they had with Extension's four specific programmatic areas (Agriculture, 4-H Youth Development, Family & Consumer Science, and Community Development), and if they knew of Extension's capabilities to assist in local food procurement. Table 1 shows the 4-H Youth program received the highest acknowledgement at 46.3% (the sum of the two highest data points above neutral). The least known variable was that OSU Extension can help hospitals source and purchase locally grown foods with only 6.1% indicating familiarity (again, summing the two highest data points).

**Table 1.**

Ohio Hospital FSD Knowledge of the OSU Extension Service

Variable		1 = Not familiar at all	2	3 = Neutral	4	5 = Very familiar
OSU Extension offers education programs for...	Percent					
...youth (the 4-H program)		24.2%	15.8%	13.7%	26.3%	20.0%

	n=95					
...families (health, nutrition, budgeting)	Percent n=97	22.7%	20.6%	21.6%	22.7%	12.4%
OSU Extension has an office in every Ohio county (88 in total).	Percent n=98	28.6%	23.5%	17.3%	13.3%	17.3%
...farmers (agricultural practice)	Percent n=96	29.2%	24.0%	17.7%	20.8%	8.3%
...institutions (hospitals, schools, business, government, non-profits)	Percent n=97	29.9%	22.7%	22.7%	17.5%	7.2%
...communities (strategic planning; local government training; economic development)	Percent n=97	30.9%	21.6%	32.0%	10.3%	5.2%
OSU Extension can help hospitals source and purchase more locally grown foods.	Percent n=98	40.8%	32.7%	20.4%	5.1%	1.0%

Table 2 provides responses from FSDs regarding their interest in participating in existing Extension programs that could help them address issues of using local food in their operations. Again, by summing the top two data points, we find that just over half (54.5%) indicated they were interested in having Extension help them find and purchase local foods from local farmers; 53.5% said they would like help to develop signage for local food marketing in their cafeterias; and 50.5% indicated they would like assistance in developing employee wellness programs featuring local foods.

**Table 2.**  
FSDs Interested in Participating in Existing Extension Programs

<b>Variable</b> <i>How interested might you be in participating in an Extension program that would help you...</i>		<b>1 = Not interested</b>	<b>2</b>	<b>3 = Neutral</b>	<b>4</b>	<b>5 = Very interested</b>
...find and purchase local foods from local farmers.	Percent n=99	6.1%	9.1%	30.3%	31.3%	23.2%
...design signage or local food marketing materials for use in your cafeterias.	Percent n=99	9.1%	12.1%	25.3%	33.3%	20.2%
...develop employee wellness programs featuring local foods.	Percent n=99	10.1%	9.1%	30.3%	31.3%	19.2%

...partner with another hospital foodservice director who is experienced with local food.	Percent n=98	10.2%	19.4%	25.5%	26.5%	18.4%
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A recent study by Smith II, Kaiser, and Gómez (2013) found hospitals would indeed benefit from assistance by Extension personnel who could work with farmers to find better ways to market their products through farm-to-hospital (FTH) type programs. However, they also called for additional research to encourage development of new networks that might help link hospitals and farmers together to establish or expand such programs and business transactions. Findings from the project reported here should, likewise, encourage the building of relationships to expand more sustainable local food systems for serving the hospital and healthcare industry. These networks would subsequently encourage discussion and action among Extension workers, hospital/healthcare foodservice, farmers, policymakers, and advocates for local food systems. These actions could then have the multiplier effect of improving local economies as well as health of participants.

Perhaps Extension's traditional approach to farm to institution does not fit the hospital model. Perhaps there are non-traditional, unobserved, unknown, or simply different needs in hospital settings. However, based on the overall findings from the study reported here, it appears there may be numerous opportunities for Extension to initiate discussions and begin working to assist hospitals in the local food procurement realm. FSDs indicated a definite openness and interest in the topic.

Though the results from the study may not be generalized outside of Ohio, there are many similarities among the U.S. land-grant university Extension systems, and there are similarities in healthcare systems across the country as well. Thus, opportunities for action, outreach, and programming certainly exist in other locations based on findings from the study.

Dunning et al. (2012) said "the capacity and expertise of county-based field agents [Extension educators] to serve as institutional entrepreneurs [could] enable agents to respond to the growing public demand for local foods through partnerships and [could] maintain the Extension Service's relevance in a challenging budgetary climate" (p. 110). With the information from the study reported here, it appears there are opportunities in the healthcare industrial sector that could further Extension's relevance and potentially see healthcare emerge as a stronghold for future partnerships, programming, and financial support.

## Recommendations

New outreach, partnerships, and farm-to-hospital (FTH) programming could be conceived and implemented around findings from this project. Researchers and educators within the Extension in land-grant universities may use these findings as a baseline upon which to begin new or expand existing programming in the local food system arena. These findings provide insight into areas in which one might approach a hospital or healthcare operation—essentially identifying intersections at which connections and new programming can begin. Specific action steps could include developing training programs for hospitals on:

- Local food safety issues,
- Liability insurance,
- Broadline distributor programs, and
- How to source and purchase.

Based on Extension's work in farm-to-school and other farm-to-institution settings, they could also offer specific assistance in helping hospitals:

- Develop signage for local foods in cafeterias,
- Develop employee wellness programs featuring local foods,
- Create hospital gardens,
- Add know your farmer programs,
- Conduct local food nutrition education,
- Host on-site farmers markets,
- Begin composting,
- Offer community supported agriculture (CSAs), and
- Offer other related farm to hospital programs.

In addition to Extension, partners in other university departments and colleges, and partners outside the university in community-based or non-profit sectors should be sought out and included in constructing new programs and opportunities. Experiential knowledge from outside partners can strengthen Extension work in this area, potentially increasing the positive impact and success of the efforts and ultimate objectives of improving public health while stimulating a local economy by supporting local farmers and food production operations.

## Conclusions

The primary purpose of the study reported here was to understand what systemic factors contributed to hospital foodservice directors (FSDs) using or not using local foods in their operations. It also sought to see if those FSDs had knowledge of Extension and its potential for providing assistance. Overall, Ohio hospital FSDs have a definite interest in adopting or increasing the use of local foods in their operations; however, there are several areas of concern that need to be addressed (including availability and food safety) before wide-scale increases are seen.

Local food initiatives can positively affect public health and local economies. They can enhance a hospital's public relations. And they can provide opportunities for Extension educators to expand networks that create new partnerships benefiting hospitals, healthcare institutions, local farmers, and food production/distribution operations coalescing in triple bottom line results that deliver positive social, environmental, and economic outcomes. As noted, the main findings from the Extension analysis in the study may be that healthcare holds great potential as an industry partner that could further Extension's relevance and programming and provide a source of future financial support.

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